

Ihagee – the Men and the Cameras



The story of the Ihagee Camera Company of Dresden, and the men who created the Exakta – the definitive 35mm single lens reflex camera – and many others

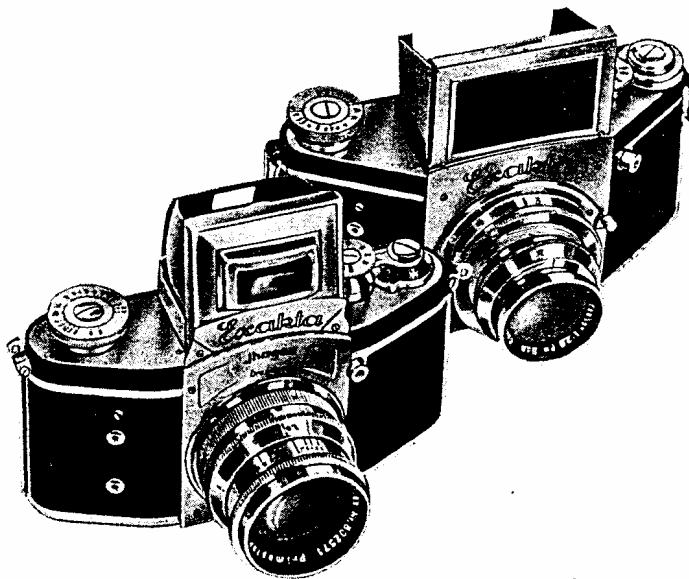
Peter Longden



IHAGEE – THE MEN AND THE CAMERAS

The story of the Ihagee Company and the men who created the Exakta - the definitive 35mm Single Lens Reflex Camera - and many others.

Exakta-Reflex-Kameras



Peter Longden

© Peter Longden 2008 and 2011

Thanks and acknowledgements

My thanks are due to the many members of the Exakta Circle and other Exakta Collectors and authorities on the subject, whose writings and conversations have, over the years, given me the stock of knowledge and information that have enabled me to undertake the task. My thanks also to the Steenbergen Stichting for their encouragement and support. Their published biographies of Johan Steenbergen have given much insight into the early days of Ihagee.

The nature of this type of research work means that I have drawn upon many writings and interviews. Much use has been made of the Catalogues and advertising issued by Ihagee and others between 1914 and 1939 and to a whole wealth of literature published by them since 1945. The writings of Richard Hummel have given a great deal of factual information about the post-war years in the German Democratic Republic (GDR), when such details were not available to Ihagee enthusiasts in the West. I have also drawn on information given in interviews in the film *'Ihagee Exakta- the rise and fall of a legendary camera'* produced by Eiselt Film Dresden 2001. Credit is given to those authors whose works have either been quoted or used as the basis of my writings.

Illustrations have come from many sources, including Ihagee catalogues and publications, from a set of photographs given to me many years ago by the late Klaus Wichmann, and my own and the Exakta Circle's stock of photographs.

Where appropriate I am referring to these items according to the Harvard system of referencing.

I would also like to thank my wife, Judith, for her help in proof reading this text and for her support generally in this task when other domestic functions have been delayed!

Steenbergen Stichting

Steenbergen Stichting (Foundation) is a charity founded in 1961 by Johan Steenbergen in memory of his elder brother, Hermann Diedrich Steenbergen (1883-1945).

Hermann was a graduate in chemical engineering of the University of Delft. His career was in the field of Food Inspection, and he operated on a regional basis in Eindhoven, and later during World War II in Nijmegen. He came into conflict with the German occupying authorities, when he tried to prevent his employees from being sent to Germany as forced labour. He had to leave Nijmegen overnight and went underground in Amsterdam, where he died, undernourished, at the age of 61 during the last winter of the war.

The Foundation is active in promoting care for the environment, safeguarding the Dutch cultural inheritance and furthering understanding of the needs of the third world.

Contents

Introduction

Chapter

1. 1886-1912 Johan Steenbergen – The Reluctant Tailor.
2. 1912-1918 Marcolinistraße - and the birth of Ihagee.
3. 1919-1922 The move to Gottfried-Keller Straße.
4. 1923-1928 Schandauer Straße – “The House of a Thousand Hands”.
5. 1929-1932 Years of growth.
6. 1933-1938 The birth of a legendary camera.
7. 1939 - and turmoil.
8. 1945-1949 The Restart. Blasewitzer Straße, the Russians and the German Democratic Republic.
9. 1950-1959 Exakta Varex ! The legend continues.
10. 1960-1987 The last years.
11. In retrospect
12. Appendices

Appendices:

- (i) Glossary
- (ii) Model listing and body numbers
- (iii) Lenses and Accessories
- (iv) The crucial letters from the Communist Government to Ihagee - 1945-1948.
- (v) Druckguß Heidenau – diecast body parts
- (vi) References

INTRODUCTION

The days seem long gone when schoolboys dreamed of owning their own cameras, developing their own films and producing the resulting prints themselves. Amongst my own circle in 1940s Britain, access to some sort of camera - often belonging to their parents - was quite common. Box cameras and folding cameras, usually Kodak, Ensign or Voigtländer featured largely.

In those wartime and early postwar days, film material was hard to come by, and it was necessary to seek out entrepreneurs who were buying ex-government film stock, cutting it and spooling it to fit the popular sizes that we were using. 120, 620, 828 and 127 seemed to be the most common; I was not aware of anyone using 35mm film at that time, nor indeed, plates of any sort.

In my own case, use of my parents' Kodak Autographic folding camera was replaced in the late 1940s by a Purma Special, using 127 film. By 1951 I progressed to my first 35mm camera - the cream enameled Ilford Advocate, later replaced by a Baldinette, and later still by a Leica II. (sn. 86266)

In 1951, as a young soldier in London, I saw a Kine-Exakta in the window of a camera shop in the Strand. I went in. I had never before handled a single lens reflex camera, and I was fascinated by its jewel-like finish and the magnified ground glass screen. For the first time, I could see focusing in action, at all distances, in the brilliant finder. But, alas, in those days, when such quality cameras were not allowed to be imported into post-war Britain, only second hand models were available, and the cost, whether the camera was a Leica, Contax, Rolleiflex or Kine-Exakta, was almost a whole year's salary. The ownership of an Exakta remained an unattainable dream.

During my early professional career in Local Government, I had the opportunity to use a Kodak plate camera, and to develop and print the results.

Many years and many different cameras later, I saw an advertisement in the "Amateur Photographer" in late 1982 which read:

"We buy and sell old Exaktas, original lenses and accessories.
Teamwork, 49 Shelton Street, London.....".

(small ad, Amateur Photographer 1982)

That old dream was awakened, and the next time I was in London, I visited Teamwork, who were a company specializing in large format stage and professional photographic equipment, and bought my first Exakta from the Norwegian, the late Stein Falchenberg. The camera was a Varex VX which produced very good results (and still does). But that first visit, when I sensed Stein's enthusiasm for all things Exakta and Ihagee was when it all really began.

I found out that people collected cameras for what they were, and not necessarily to use. I remember Stein's classic line on one subsequent occasion: "You're not actually going to use it are you?" when I asked for a take-up spool for a VX 500 body I'd just bought from him. In fact, that same VX500 was still in use, having recently been serviced, until it was stolen in March 2008. The results

were, I thought, as good as ever. Most of my old cameras have had a film through them, although I don't rely on them for everyday use.

Stein Falchenberg was to blame. His enthusiasm was infectious, and as a result I joined the Exakta Circle when it was first formed, rather informally, in the bar at Photographica in 1986. Stein was also a member of *Ihagee Historiker Gesellschaft*, an elite international body of Ihagee experts, and he gave me access to his records for my own early research. Alas, on his untimely death from Leukaemia in May 1995, the whole of those records appear to have been disposed of by his executors, and, at the time of writing, we are still not aware of the manner of their disposal.

However, my enthusiasm for all matters Ihagee continued unabated. I found it extremely helpful to be editor of *Exakta Times* for about ten years, establishing contacts, receiving writings and data from sources around the world. All of these have fed my desire to write about the fascinating history and remarkable products of Ihagee Kamerawerk Dresden. I had started this in a series of articles in *Photographica World* and *Exakta Times* about the identification of Ihagee cameras and the history of Ihagee. It was suggested in 2006 that I should pull all this material together, possibly for publication by the Exakta Circle. Following an international Exakta meeting in Leiden in 2006, I received further encouragement and support, especially from the Steenberg Stichting, who, having published Biographies of Johan Steenberg, the founder of Ihagee, were themselves contemplating a history of Ihagee, its personalities and the cameras that they made.

This is my attempt to tell that history, despite the contrary advice given many years ago by Werner Wurst, that

"in order to be able to compose such a book, one must have access to internal enterprise, knowledge concerning all different development stages...to the persons involved and their essential distinguishing features...." – and several other reasons.

(Letter from Werner Wurst to Peter Heimbach, January 1985).

Many years have passed since Wurst advised against such a history, and much more authentic knowledge has now been lost, forever. The longer this task is delayed, the more difficult and superficial it will become.

Peter Longden 2008

CHAPTER ONE 1886-1912

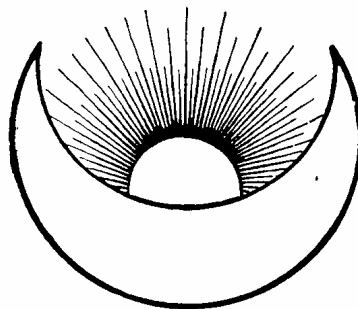
Johan Steenbergen – The reluctant tailor.

Many a good story benefits from a twist at the end, but in this story, the twists start in chapter one and seem to pop up throughout.

Life seemed destined always to be complicated for Johan Steenbergen, who was born on the 7th December 1886 in the Dutch town of Meppel, a small provincial town on the east side of what was then the Zuiderzee.

Johan's father was Jan, a prosperous draper with shops in Meppel and Zwolle; his mother Sophie Brümmer was German in origin, coming originally from Menslage, not far from Hanover. Johan had an older brother, Hermann, and a sister, Wilhelmine.

The Steenbergen biography *'Johan Steenbergen Industrialist and Diplomat'* tells how Johan was only an average pupil in school, who preferred playing to learning, and was a mischievous child. But there were early signs of a commercial brain, which was apparently exercised at the cost of his schoolmates. There is a story concerning the purchase of a supply of pencils by Johan, which he sold on to his friends at a handsome profit! He devised his own logo whilst at school, which consisted of a sun, rising out of a crescent moon. This was to feature largely in what was to follow.



Schutzmarke

(Ihagee)

Johan's father Jan died in 1904 – in that year Johan graduated from High School and started working in the family business. He had also started his own business where his personal interests lay – photographic materials and gramophones. It had been assumed that Johan would henceforth run the family business, but he was not at all enthusiastic about this, preferring to develop his own interests. What was to be done?

A compromise was found, whereby Johan would go to a tailoring academy in Dresden to train for a future in the family business. Dresden was a city which was also at the heart of the German photographic industry, so he could indulge his interests, and find out all about that as well. Thus Johan Steenbergen moved to Dresden in 1908. He was 22 years old.

Dresden is situated on the river Elbe in eastern Germany, and was famed as a beautiful baroque city, nicknamed "Florence on the Elbe". It was a centre of music and the arts, and coincidentally, in these early years of the Twentieth Century, it was already well established as a renowned centre for light industry, and there were many companies and factories producing photographic apparatus.

Young Johan did not find the tailoring academy at all attractive. There were

“all those characters at work sitting on tables with their legs crossed”.

Steenbergen Biography

With his well established photographic interests, he soon found himself a place as an apprentice/trainee with H. Ernemann AG., one of the well known photographic manufacturers in Schandauer Straße.

He soon acquired a firm understanding of the photographic trade, and later events show that he made useful contacts there. Only two years after starting at Ernemann's, Johan decided that it was time for him to go into business on his own account.



This was the Ernemann factory in Schandauer Straße in which Johan Steenbergen would have gained his early experience. It was later to undergo great expansions - and lose the top of this tower. The later and better known Ernemann Tower was to the east of this building, and still stands today.

(An early Ernemann illustration from the Exakta Circle archive)

CHAPTER TWO 1912-1918

Marcolinistraße and the birth of Ihagee.

“On 13th May 1912, at the age of 25, Johann Steenberg founded *Industrie und Handelsgesellschaft m.b.H.* with his mother and himself as shareholders. His mother provided the capital, he provided machines and parts that he had bought from a small bankrupt camera maker” (Ludwig Löschau)

Steenbergen Biography

It has been reported that Löschau did, briefly, work for Steenberg, but that he was not very good, and soon left, apparently leaving poor quality goods and problems behind! As a result, 1913, particularly, was not a good year.

Business started in a small factory at the rear of 8 Marcolini Straße, a couple of miles west of the city centre. Like lots of other suburban Dresden streets, Marcolinistraße was then and still is mainly housing, either large houses or blocks of flats, built in the late 1800s. But sharing the same street numbers, were workshops at the back of the housing – what we today would call “back-yard industry”. At number 8 the original two storey building at the rear has disappeared, to be replaced with something more modern, where, when I saw it in the early 2000's, a well known manufacturer of drawing implements was operating. By 2006 that, too had disappeared and the area was undergoing redevelopment. The street, which otherwise seems largely intact, was renamed Semmelweisstraße in 1945, a name which has subsequently been given to the nearby tram stop on line 2.



Semmelweisstraße – the former Marcolinistraße. No. 8 is on the right.

(PML)



No.8 is the building on the left. The factory was at the rear.

(PML)

The first recorded item that I have been able to find is an advertisement in the 1912 edition of *Deutscher Camera Almanach*. Industrie-u. Handelsgesellschaft introduced the plate camera "Photorex".

Der Photorex



D. R. P. u. D. R. G. M.

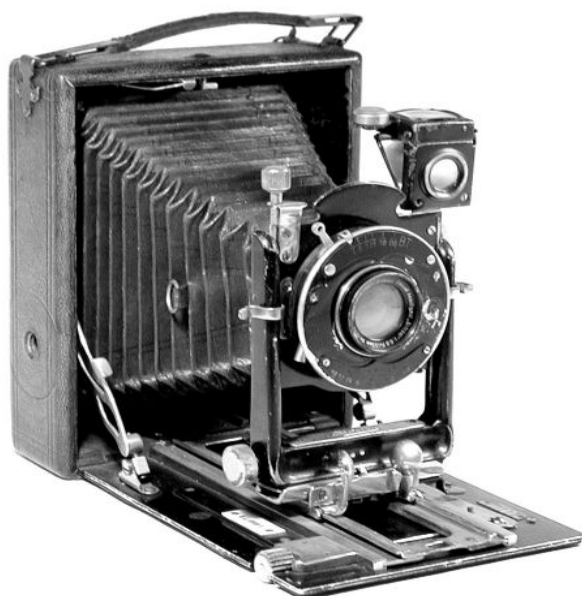
**ist durch die in ihm vereinigten neuzeitlichen Erfindungen
die vollendetste Klappkamera der Gegenwart**

Seine Hauptvorzüge sind: 1. Vollkommene Parallelität der Objektiv- und Plattenebene durch die Patent-Justierspreizen (D. R. P.) — 2. Neuartiger Unendlichkeitsanschlag (D. R. P. a.) — 3. Kegelfradseitenverstellung des Objektivteiles (D. R. G. M.)

Preisliste franko auf gef. Anfrage

Industrie- u. Handelsgesellschaft m. b. H.
Kamerafabrik mit Kraftbetrieb
Marcolinistraße Nr. 8 **Dresden-A. 5** Marcolinistraße Nr. 8

Ihagee advert 1912



Photorex – was this camera made by Ihagee, or another manufacturer, with the badge added? Even the badge does not say Industrie und Handelsgesellschaft – just “Photorex”!

Internet photograph

There was nothing really outstanding about this folding plate camera, apart from its extreme rarity today, and it was not unlike a whole range of similar cameras made by other contemporary manufacturers. It has been suggested that Steenbergen may possibly have bought this camera in and badged it himself – the name “Photorex” for instance, appears only on a small plate screwed onto the lens standard. On the other hand, the parts could have been bought in from component manufacturers and assembled in Marcolini Straße. When the transition took place from selling other people’s cameras to making his own, is not known. There was a link (for want of a better word) with another manufacturer in Magdeburg, Mono-werke Rudolphe Chasté. Could this have been the source of the first components?

Then the acronym *Ihagee* appeared. The name of Steenbergen’s company was quite a mouthful, and something shorter would have been necessary to put on his cameras. In 1913, the company name was changed to *Ihagee Kamerawerk G.m.b.H.* “Ihagee” is an acronym using the letters I-H-G, (based on the initial letters of Industrie und Handelsgesellschaft), (rather like the British Broadcasting Corporation calling themselves the BBC). Pronounced in German, I-H-G becomes Ee-har-gay.

A plate camera of 1914, the Mono-Minax, is believed to have borne the Ihagee badge. McKeown’s guide in 1993 showed a 1913 model, the Mono 00, which, although a little simpler, could well be related to the Photorex, through using the same, or similar, components. What we shall probably never know was whether Ihagee made the Mono-Minax or indeed even the Photorex, or, as seems quite possible, Mono-werke Rudolphe Chasté, in the early months, produced components to Steenbergen designs for Ihagee to assemble and sell.

The text of the above Almanach reveals that the firm was also selling flash equipment, yellow filters and a viewfinder. Details were to be found in the company’s pricelist. It is not known whether a copy of this still exists.

The next advertisement that appeared was an in the German magazine *Photographische Rundschau und Mitteilungen* in 1914. "Der Vera-Satz" was a set of four supplementary lenses with a universal holder, supplied in a leather plush-lined case. These lenses varied the focal length to give wide angle, portrait, and telephoto effects, and a close-up for copying purposes. The sets were available in three different diameters and were made by "the originators of this invaluable accessory" – presumably not Ihagee. But it must have been a popular item, for it continued to appear in the Ihagee catalogue right through to 1939, although its name had been changed to "Ihagee-Satz" by 1925.



Der Vera-Satz! Ein optisches Wunder!

[Mehrfach]patentamtlich geschützt.

Der Vera-Satz macht jede Kamera zu einem Universal-Instrument. Er besteht aus dem Vorsatzlinsenhalter, der durch Zusammendrücken zweier Federn auf die Sonnenblende des Objektivs gesetzt wird, und 4 Vorsatzlinsen: a) Weitwinkellinse, b) Porträtlinse, c) Reproduktionslinse und d) Telelinse. **Es ist eine Eigenschaft der Veralinsen, daß die Bilder trotz der Änderung der Objektivbrennweite sehr schön eben bleiben.**

Die Vera-Sätze werden in 3 Größen hergestellt. Die Größe I hat einen Linsen-Durchmesser von 31 mm und kann für alle Handkameras verwendet werden. Die Größe II hat 40 mm Durchmesser und ist für Kameras 13×18, sowie für jene Kameras, die ein sehr großes Öffnungsverhältnis haben. Die Größe III hat 52 mm Durchmesser und ermöglicht es dem Fachphotographen, die Brennweiten der vorhandenen Objektive außerordentlich zu variieren. Auch ist diese Größe für Projektionsapparate, Epidiaskope und Kinematographen zu empfehlen, um während eines Lichtbildervortrages die Vergrößerung beliebig wechseln zu können.

Preis: in feinem Leder-Etui für Größe I M. 12,—, Größe II M. 16,—, Größe III M. 27 —.

Bezug durch die Photohandlungen. Neuheiten-Liste* auf Verlangen.

IHAGEE KAMERAWERK G. m. b. H., Dresden-A. 5, Marcolinstr. 8.

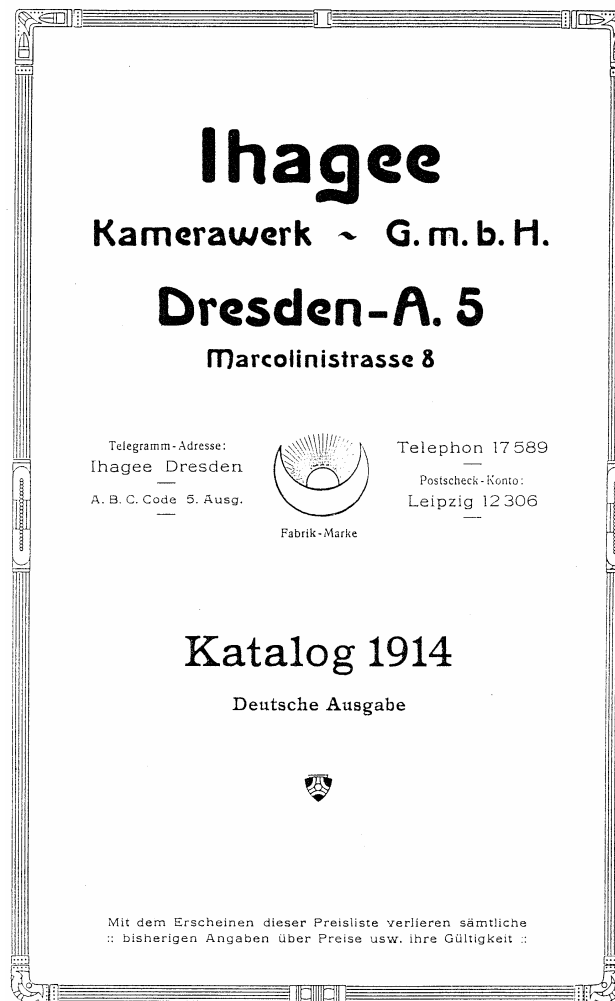
(Photographische Rundschau und Mitteilungen 1914)



Vera-Satz – four supplementary lenses and a universal holder (PML)

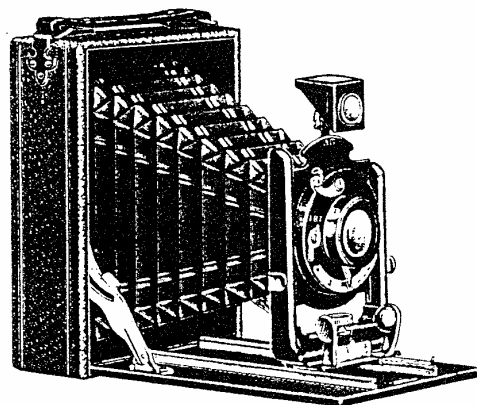
"After the difficult start, things improved during 1914. Due to stiff competition, it was difficult to sell cameras in Germany itself" Steenbergen Biography
Ihagee concentrated on the export business, with sales in Russia, Sweden and Denmark. The product line had grown to eight models, all plate cameras, together with a range of accessories such as cases, plate holders, supplementary lenses, viewfinders and flashguns. (The type that used flashpowder, of course.) Most of Steenbergen's cameras had the option to have a choice of various lenses and shutters, a feature of Ihagee (and many other) catalogues of this era.

The company logo appeared, with Johan adopting his schoolboy design of a sun arising out of a crescent moon. (chapter one.)



Ihagee Catalogue 1914 - cover

A whole new world opened up with the publication of a comprehensive 16 page catalogue in March 1914. Photorex had disappeared, to be replaced by a series of folding plate cameras. Hugo Ruys revealed in *Exakta Times* 62 that the German Emperor himself had forbidden the use of names with "Rex" (Latin for *King*). These cameras appeared in ascending quality; Weltrekord Modell A was the cheapest - a simple model with a wooden body, covered with imitation leather, and having a black interior.



Weltrekord Modell A

Ihagee catalogue 1914

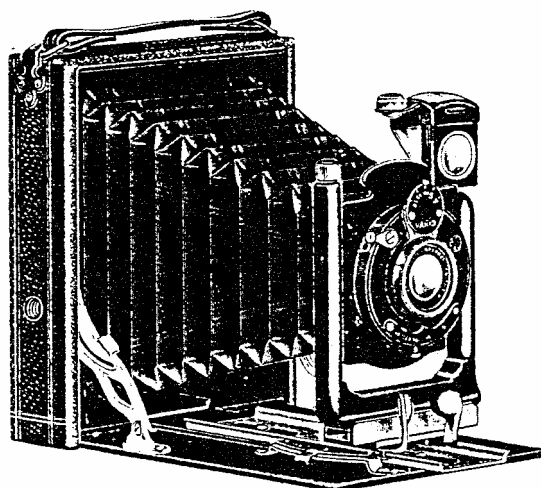
The drop-down baseboard panel (or bed) was made from black enameled aluminium, bearing the focusing rails which were nicked. The lens standard which slid along the rails was a magnesium casting, also black enameled. A black leather bellows was fitted. The basic rise/fall and cross movements of this lens assembly were available for perspective control, but operated purely by friction, the central positions being marked by matching dots. The shutter was very basic, giving one instantaneous speed, probably about 1/25th second, plus time and brief-time exposures. The lens appears to have been a two element Periscopisches Doppel-Objectiv. Focusing was by sliding the lens standard along the nickel rail, to a stop where the lens was focused on infinity, and then using either a focusing scale for reference (with the infinity catch released), or by viewing the image on a hooded ground glass screen, which was supplied. This was to be fitted into the grooves at the back, later to be occupied by a dark slide containing the glass plate, or a film pack. There was a Brilliant type viewfinder mounted centrally at the top of the lens panel. This camera was available for 9x12cm plates or film pack.

Weltrekord Modell B was slightly better quality. Available in three sizes, 9x12; 10x15 and 13x18cm, and covered in real leather, there was a choice of three lenses: the Periscopisches Doppel-objectiv; Extra-Rapid-Aplanat Zenith (f:8) or Luxar-Aplanat (f:7.7). The shutter could be the basic one as supplied with the model A, as long as the basic lens was fitted, or a rather better one, giving speeds from 1/25th sec. to 1/100th, as well as the time exposures, for the two better lenses.

Thus appeared for the first time (for Ihagee at least) the choice of lens/shutter combinations, which were to feature right through to 1939 for this type of camera. Rather than being overly repetitious when it comes to recording shutters, I propose simply to use the descriptions basic, intermediate and advanced. As the years passed by, the shutters developed also, and I will record this for each period described. In 1914 the *basic* shutter, as mentioned above for the model A provided little more than that associated with the cheapest box cameras of the day – a single instantaneous speed, probably about 1/25th sec., with a facility for a time exposure. Quite soon this developed into a shutter offering speeds from 1/25th to 1/100th sec. – plus time. The *intermediate* type of shutter generally offered speeds from 1 sec. to 1/100th sec., whereas the *advanced* shutter was to offer similar speeds up to 1/250th sec.

The next model to be listed was the Photoklapp Viktor. (klapp = folding) in two sizes: 9x12 and 10x15cm. There was a double nickel rail which slid on studs on the drop-down bed. This was used for focusing purposes, controlled by a radial lever on the right side of the bed, moving along a scale. The camera focused down to a distance of 1m. The Brilliant finder was rather larger than the preceding models, and was mounted on the left-hand arm of the lens standard (as using the camera). Should the camera be rotated from portrait format to landscape format, the Brilliant finder could also be rotated, to accommodate this. A spirit level was fitted, to ensure that the camera was truly level.

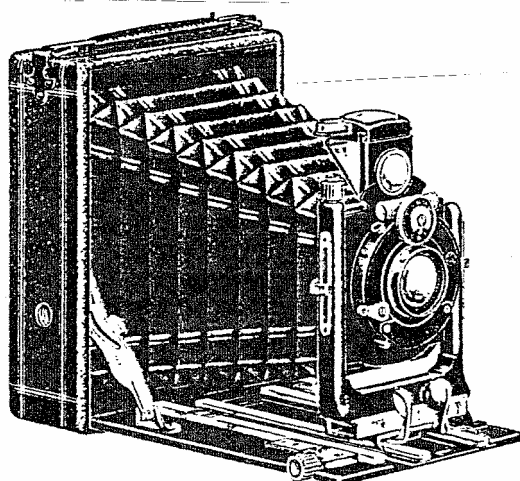
As previously, the basic shutter was only provided with the simple lens; four more lens choices were offered, including a Rodenstock Euryrinar. Now the shutter alternatives increased. The choice was expanded to give an intermediate type of shutter with speeds from 1 sec. to 1/100th sec. plus the time exposures.



Viktor-the first in a family of Ihagee plate cameras with a radial lever on the baseboard for focusing.

Ihagee catalogue 1914

Moving upward from the Viktor, the next camera in quality was Photoklapp Patent Duplex. This model was made in three sizes: 9x12; 10x15 and 13x18 cm, with a more complicated set of double rails. The use of the word *Duplex* indicates that the rails provide double extension, for close focusing, and are controlled by a knob let in to the right-hand side of the bed. When the lens standard is slid out on opening the camera, it stops in a position where the camera is automatically focused on infinity. Pulling the knob out axially (just like the winder on a watch) releases this infinity position, and turning the knob then enables focusing on closer distances, by winding forward the upper rails, bearing the lens standard, sliding upon the lower rails. This infinity catch release (unendlichkeitanschlag) was not the early Ihagee patent, so why the word patent is used in the model name is not known. The lens standard, as befits the better quality of this model, has rise and fall and cross movements controlled by vernier-type screw mechanisms.



Patent Duplex – the model with double extension for close up photography, with the patent infinity catch release, operated by the knob near the front of the baseboard

Ihagee catalogue 1914

Each of the three sizes available had a choice of seven lenses, set in three alternative shutters. The chosen lenses were: Luxar-Aplanat f:7.7; Ihagee-Doppel-Anastigmat Verida f:6.8; Rodenstock Euryrnat f:6.8; Meyer-Aristostigmat f:6.8; Ihagee-Doppel-Anastigmat Bifröst f:5.5; Meyer-Doppel-Anastigmat f:6.8; and Ihagee-Doppel-Anastigmat Quido f:6.8.

Photoklapp Patent Quido was basically similar, but the body was in a square format for 9x12cm pictures, allowing either portrait or landscape pictures to be taken, according to the position of the plate. Another lens was added to the choice; the Goerz-Doppel-Anastigmat-Dagor f:6.8. The basic shutter was now omitted.

Three sizes of Photoklapp Triplex were offered in landscape format; 9x12; 10x15 and 13x18cm. Again, the seven lenses used in Patent Duplex were listed, with the intermediate and advanced shutters. Here, the camera has three rails giving a triple extension instead of the more usual double extension.

Users of the smaller format 6 x 9cm were not forgotten, however. Taschen (pocket size) Photoklapp Modell A came with the intermediate shutter and a choice of five lenses, with focusing by scale, while Modell B had the double extension of the Patent Duplex, and the same range of lenses in the middle quality shutter.

Following the cameras, the catalogue listed details of metal dark slides for plates, film pack holders (some covered with leather), cases for cameras (with three or six dark slides or with film pack holder). Vera-Satz was detailed, in two sizes. Filter holders and yellow filters, an optical viewfinder and flash guns were also available.

World War One

Then came the Great War of 1914/1918, and so many men were called up for military service that production ceased. The Steenbergen biography tells how it started again to a limited extent in February 1915, but Johan Steenbergen moved to The Hague from where, somehow, he ran the business. Indeed, the annual report even shows a considerable profit for that year. But after that, business declined rapidly once again. The two shareholders decided on October 6th 1918, just before the armistice on November 11th, to liquidate the company.

Defeat and revolution caused big changes in Germany, but Steenbergen continued to work hard to save his business. New opportunities were seen, and very quickly he founded a new company, Ihagee Kamerawerk Steenbergen & Co. His mother was no longer a partner – she lent him her capital at interest.

In November 1918 the company was expanded. Bearing in mind that most camera bodies had so far been made of wood, Steenbergen engaged six "Tischler" (woodworkers – I prefer to think that they may have been skilled cabinet makers) as partners in the Company. Two of them he knew from his apprentice time at Ernemann's – Emil Englisch and Otto Diebel. Englisch was described as a Master Woodworker. The partnership agreement is dated 16th November, just five days after the war ended. Englisch had been making a studio and travel camera, the Corona, at his own small factory at 13 Seidnitzer Straße, in Blasewitz, east of, and very close to the city centre. This camera thereafter became an Ihagee product, and was listed in the catalogues, more or less the same, until 1939.

The other new partners were Hugo Frauenstein, Emil Kirsch, Konrad Koch and Herbert Schubert. Johan became General Manager, and in charge of sales, although Otto Diebel later became sales manager. Emil Englisch was a director.

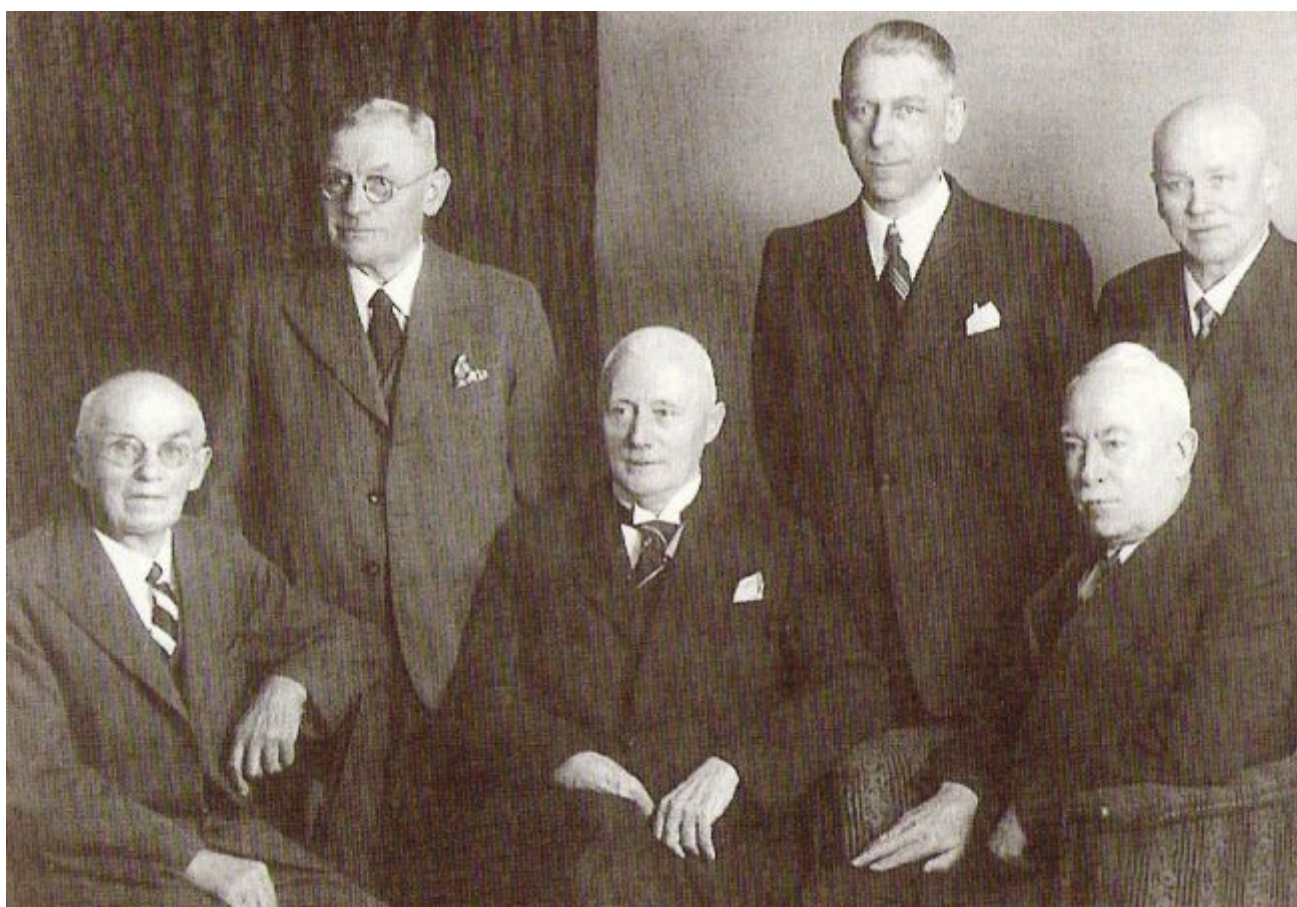
The Steenbergen Biography puts it somewhat differently:

"The woodworkers had been unable to exploit their technical skills commercially; for this purpose they needed a man like Steenbergen. On the other hand, by taking them into partnership, Steenbergen tied a group of skilled men to his business and gave Ihagee a technical basis. At the start

the woodworkers were normal labourers in accordance with the partnership agreement, and received standard wages, except for Emil Englisch, who was appointed production manager. (I think something is lost in translation here – “workers” might have been a more sympathetic term than “labourers”, which conjures up images of digging trenches or foundations!). Steenbergen remained General Manager, and was in the early years, the only one with power of attorney. He also took a large part in the export (arrangements). In the spring of 1919 the factory had already produced a bagful of samples. Steenbergen left for abroad, and brought back orders for months of work. That was the pattern for years to come.”

Steenbergen Biography

Emil Kirsch later left the company, emigrating to the United States. He had to buy himself out of the agreement.



The 1918 partnership. This photograph was taken several years later, but is the only one known to exist. It follows that Emil Kirsch is not shown.

From left to right: Hermann Schubert, Hugo Frauenstein, Otto Diebel, Johan Steenbergen, Emil Englisch and Conrad Koch

Steenbergen Biography

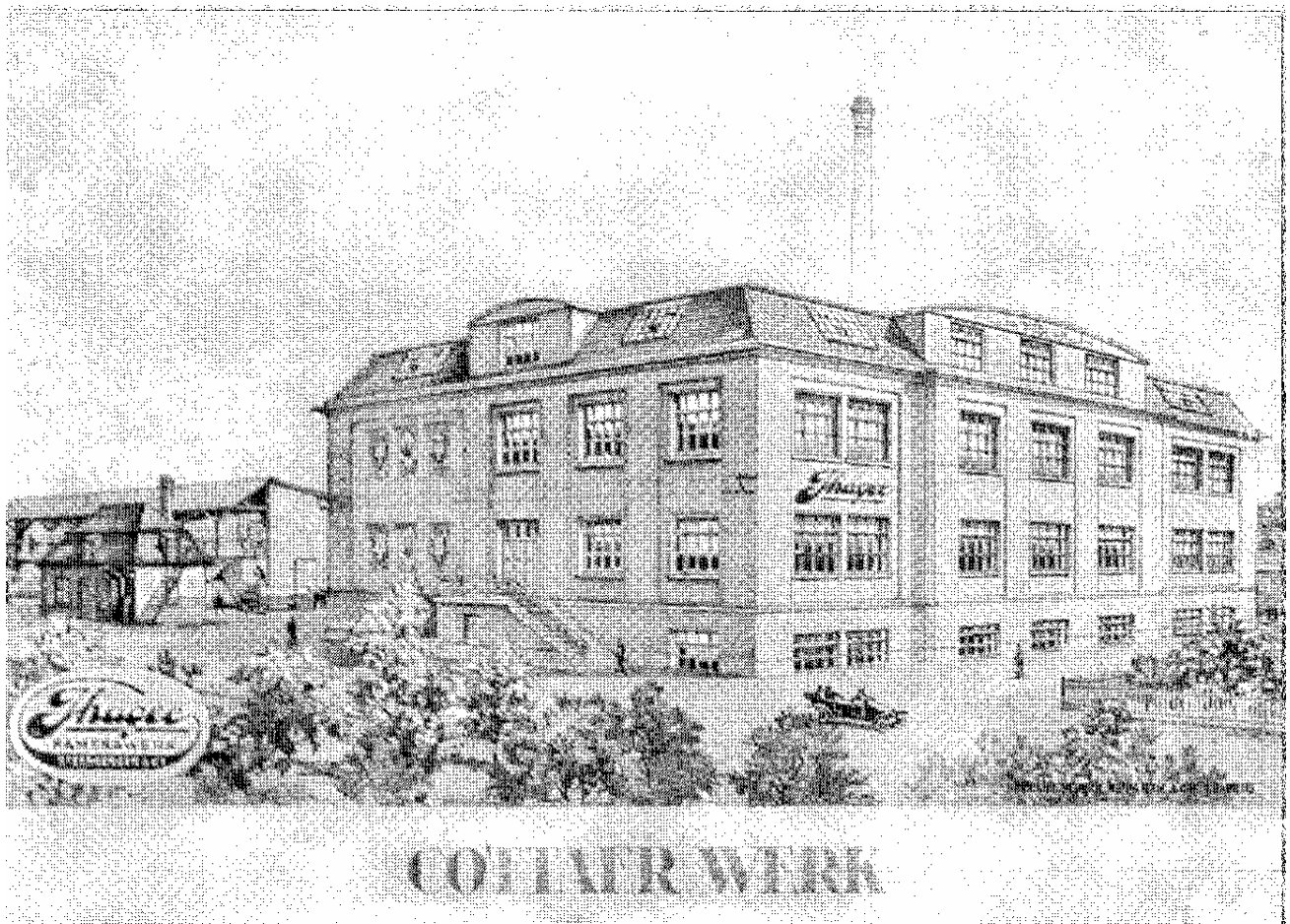
CHAPTER THREE 1919-1922

The move to Gottfried-Keller-Straße.

1919

By 1919 the premises at 8 Marcolinistraße were too small, and the company moved a mile or so further to the west to the Dresden district of Cotta.

Visualise a staggered crossroads on Steinbacher Straße, a main road leading west. On the north side we come first to Grillparzerstraße, and almost immediately on the south side, up a hill, is Gottfried-Keller-Straße. The streets are pleasant and tree lined, with a stopping place for the tram service back to the centre of Dresden. It's a lower density area than Marcolinistraße, and the houses or blocks of flats are set in spacious gardens, but still there are workshops in tandem at the rear of some of the housing. At 85 Gottfried-Keller-Straße, only a few yards from the crossroads, there is a large three story block of flats, with a similar building behind. It was built as a cigarette factory in 1910, according to a former owner interviewed by Stein Falchenberg (Exakta Circle Newsletter June 1990). It was still in use, as a builder's workshop when I first saw it in the early 2000s, but by 2006 it had been converted into apartments. This was where Ihagee moved in 1919.



85 Gottfried-Keller-Straße as illustrated by Ihagee after the move in 1919.



85 Gottfried-Keller-Straße- in 2006. The chimney is no longer there, but the building is remarkably unchanged.

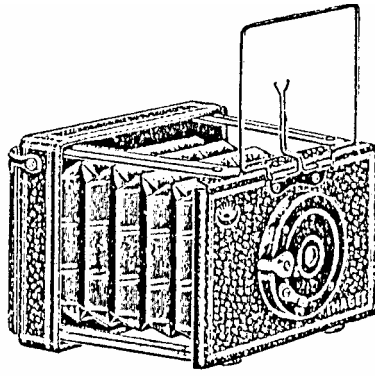
(PML)

The next catalogue to come into my hands is undated, but is published by Ihagee Kamerawerk, Steenberg & Co., the company formed in November 1918. No detailed address is given, other than "Dresden 29" which was the post code for Dresden-Cotta, where Gottfried-Keller-Straße is situated. The move there was made in 1919, so this catalogue could well be 1919/20 or /21. Described as Liste A, it is 155 x 230mm, slightly larger than A5, and printed in black on orange paper, consisting of 16 pages. The illustrations, as was quite common at this time, were very good quality engravings.

Could the use of the expression 'Liste A' imply that this was the first issue of a full catalogue after WW1, and indeed, of the newly formed company?

Several new cameras now appear, which were probably in preparation during the war, but which are now listed for the first time. I am tempted to describe them in the present tense, simply because so many of them still exist in collections!

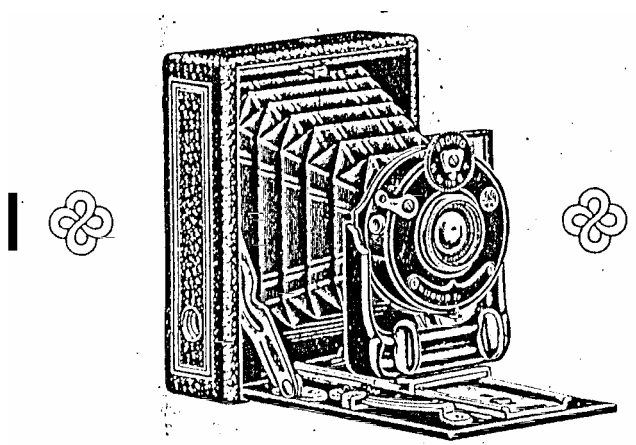
Photoknips is a small collapsible camera, for plates or film packs. Instead of the usual drop-down or folding-bed, this model has a lens panel the same size as the camera body, which can be pulled forward, parallel to the body, on four folding struts. The body and panel is metal, leather covered, and the camera is in two sizes; 4.5x6cm and 6.5x9cm. The camera has "a first-class achromatic lens" (as described in the catalogue) of universal focus (so no focusing system is needed) in a basic shutter. View finding is provided by a wire frame. Photoknips was supplied when new in a leather case with two or three slides, or a film pack holder.



Photoknips – for use with 4.5x6cm or 6x9cm plates or film packs.

Ihagee catalogue Liste A

A small version of the Viktor style of camera for plates or film packs in the size 4.5 x 6cm is entitled Mikrobie. It is of similar construction to Viktor, and uses the same type of radial focusing lever. There was a choice of four lenses at the time, from Hugo Meyer, all of 75mm focal length: f7.7 Aristoplanat; f7.2 Aristoplan; f6.8 Aristostigmat, and f5.5 Aristostigmat. All could be provided with an intermediate shutter now named as a Pronto. But an advanced Compound shutter 1sec to 1/300th was only available with the Aristostigmat lenses. At this stage a folding optical viewfinder is attached to the left side of the camera body.

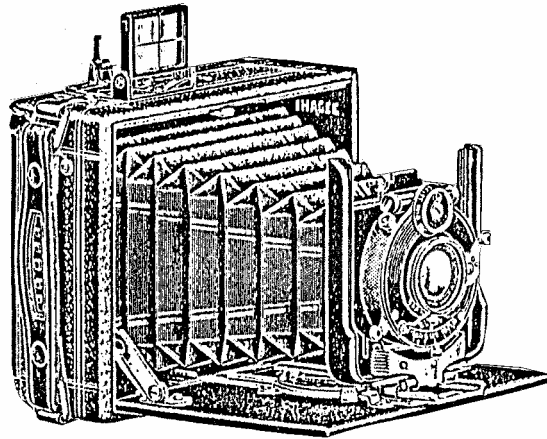


Mikrobie – the 6x4.5cm version of Viktor with radial focusing lever.

Ihagee catalogue Liste A

All the conventional plate cameras could, of course, be turned through 90° to obtain a landscape format, instead of a portrait format, but the next camera, Venus, is a 6.5 x 9cm model built in landscape format. (Querformat). It was a

new addition to the family of Viktor style cameras, with the radial focusing lever. Early models had an optical viewfinder fitted on the top of the body. Two lenses were available, the Meyer Aristostigmat, 105mm, f6.8, or the Steinheil Doppel-Anastigmat Unofocal, again 105mm f6.8. The shutter choices were the intermediate and advanced versions.



Venus – the 6x9cm landscape member of the Viktor family

Ihagee catalogue Liste A

Illustrations in early catalogues often showed either the make or the model name as if written on or in the camera in white ink, as in the picture of the Venus above. It did not appear on the actual cameras! The name Ihagee was usually embossed on the leather handle or the focusing hood on the rear. The optical viewfinder shown above was later replaced by a wire frame finder as in the following specimen.



A rather well-used Venus! This later model was originally owned by an Architect in the west of England, who used it to record his buildings. This one has a wire frame viewfinder.
Body no. 300745

(PML)

Rekord appears to be the reincarnation of Weltrekord model B from 1914, using the same illustration, and was available in 9 x 12cm and 10 x 15cm sizes. Whatever happened to the 13 x 18cm size? Possibly the photographer using the

largest format might be more accomplished and would require something better than this model, which was the very basic type of folding plate camera – today we would probably call it “entry level”! Three lenses were available in the smaller format: Prima-Achromat (no specification), Periscopisches Doppelobjectiv, and Luxar Aplanat f7.7. Only the latter could be had with the larger format camera. Shutters were either the basic one speed instantaneous type or an intermediate version with 1/25th to 1/100th sec plus time.

Moving up the scale of quality, Viktor appears again, using the same illustration as in 1914. Available in 9 x 12cm and 10 x 15cm, the starter model is provided with a Luxar-Aplanat f/7.7 in the basic shutter, and six other lenses of increasing quality in the intermediate type of shutter, 1/25th to 1/100th sec plus time: Rodenstock Hemi-Anastigmat f7.2; Meyer Doppel-Anastigmat Veraplan f6.8; Schneider Doppel-Anastigmat Isconar f6.8; Rodenstock Doppel-Anastigmat Euryrnat f6.8; Steinheil Doppel-Anastigmat Unofocal f6.8 and the same in f5.5.

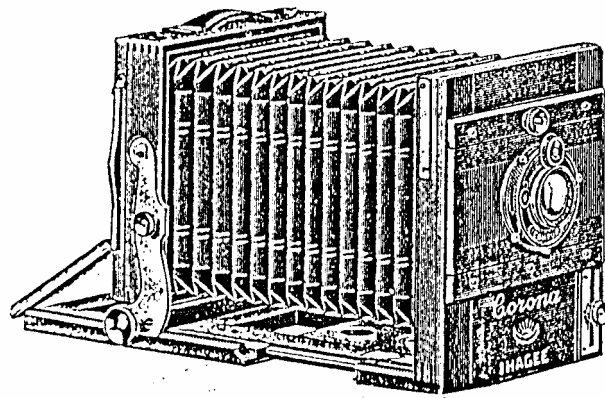
Patent Duplex remains as the top quality Ihagee folding plate camera of this era. As with Rekord and Viktor, the available sizes were 9 x 12cm and 10 x 15cm. but the full range of three shutters were provided, together with eight different lenses, ranging from an f7.2 Rodenstock Hemi-Anastigmat, through and including most of the lenses already mentioned, to the Steinheil Doppel-Anastigmat Unofocal.



This is a later Patent Duplex in 6x9cm size

(PML)

Now listed for the first time is the Ihagee-Reise-(or travel)-Kamera Corona. This camera was already being made by Emil Englisch in his Seidnitzer Straße workshop when he joined Ihagee in 1918.



Corona-originally made in Walnut wood, later to be Mahogany

Ihagee catalogue Liste A

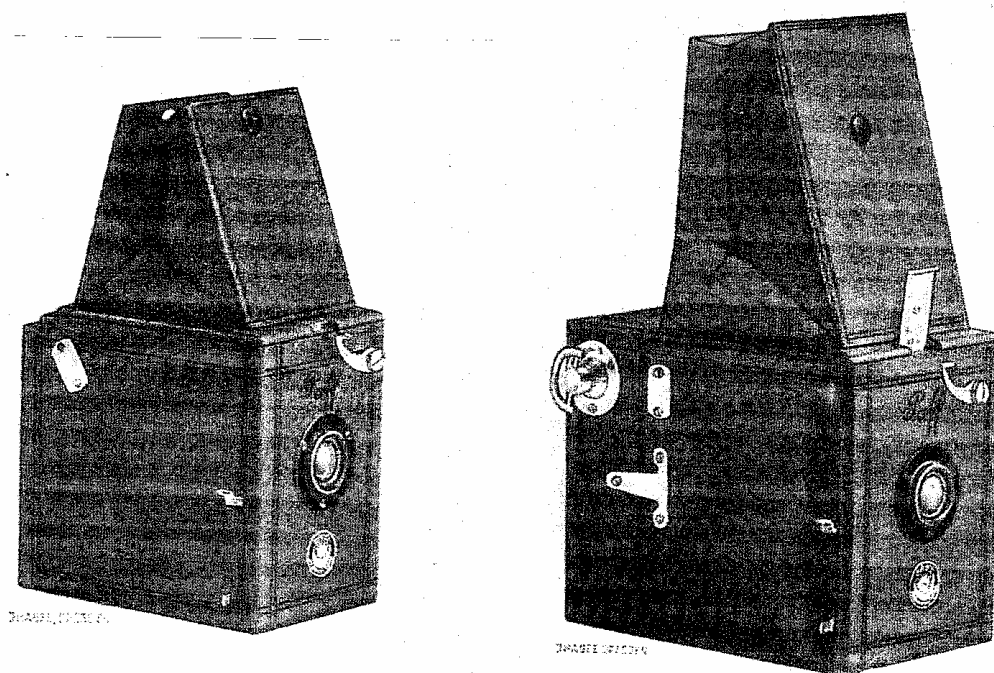
It was described in the Ihagee catalogue as a "master-piece of woodworking", built at that time in walnut wood. This square baseboard camera with a leather edged calico bellows was available in three sizes; 10 x 15cm; 12 x 16.5cm and 13 x 18cm. The lens standard was fixed to the front edge of the base board, with brass fittings. The assembly to house the plates or focusing screen was at the rear with similar fittings, and focusing was provided by one part of the base sliding in the other. The rear section was controlled by rack and pinion. It had a tilting facility, and the front had rise and fall/cross movements built in. It was supplied at this stage without lens or shutter, giving the purchaser the opportunity to select his own combination.

The catalogue listed a number of dark-slides in varying quality and size, filmpack holders, cases for cameras and slides, tripods large and small, flexible cable releases, an accessory roller shutter and the Lumimax enlarger in several sizes. This was essentially a light box upon which the camera could be attached. With the shutter open, it became a projector. A professional version, which did not need the use of a camera, was also available.

This little catalogue - Liste A - set the basic tone of what was to come in later years. More and different models of Ihagee cameras were yet to appear, but many of those listed already would continue for years to come, although their details, quality and sophistication would develop. Thus far, the company was majoring on "conventional" plate cameras, and it is no surprise that other manufacturers were producing very similar cameras. Even so, an Ihagee range of conventional plate cameras would continue to appear to the late 1930s, some even to the last pre-war catalogue in 1939. Viktor, Patent Duplex and Corona were the longest survivors.

1921

By 1921 the company's catalogue had grown to 24 pages. A new name now appeared in the Ihagee lexicon: "Paff". This word has been translated as plop, which will become clear shortly. Paff was a wooden bodied single lens reflex camera, in appearance resembling the ubiquitous box camera, covered in leatherette. But the entire top of the camera body opened up as a focusing hood, revealing a ground glass screen. The hood was hinged at the front, and held shut when not in use by a simple press stud. The construction of the wooden body is precise and well finished.



Plan Paff and Roll Paff

Ihagee catalogue 1930

At this stage in its career, Paff was available in two types: Plan Paff was a model for use with glass plates or film packs 4.5 x 6 cm, and a corresponding model Roll Paff was for use with roll film giving twelve 6 x 6 cm exposures. Today we know this size of roll film as 120. In this latter model, a wooden film magazine, held in position by metal clips, occupied the space which was for glass plates in the other version. A wooden carrier was also provided with Plan Paff to house a film pack. Both models had non-focusing lenses; a choice of a simple achromatic lens or a Meyer Anastigmat Trioplan f6.8. The lens was fitted in a flanged metal mount, fixed to the camera front by three screws.

The shutter mechanism was simplicity itself. A hinged reflex mirror descended when a stud on the front of the camera was pressed downward, against a fairly strong spring. The shutter release was on the side, in the usual position for a box camera, as was an auxiliary lever which selected the shutter speed: instantaneous or brief time (i.e. the shutter stayed open as long as the release was depressed). At exposure the mirror rose, a plate attached below the mirror front moved up with it, until light from the lens reached the sensitive material. A second and separate plate then rose vertically from the bottom of the lens opening to complete the exposure. Altogether, it is rather rudimentary, and not unlike the simple construction of a box camera shutter. It is very quiet in action, literally making a plop noise – hence the German name Paff! There was no iris diaphragm as such in Paff. A metal strip 15mm wide could be slid upwards between the lens elements. This contained three aperture holes: f6.8, f12.5 and f25. and was located in front of the shutter mechanism. The values were engraved on the front of this strip, and each position clicked into place with a detent spring. When the aperture strip was fully depressed, the shutter release was blocked against inadvertent exposure.

Paff was a unique camera – in most cases the shutter mechanism still functions eighty years later, although the mirror has probably clouded, and in any event, the reflex viewing image is very dim by today's standards.

Vera-Satz and the Photoknips camera appear again, as do Mikrobie and Venus. In both the latter cameras, the lens choice was revised – or were the lenses simply renamed?

For Mikrobie, the Aristoplanat, Aristoplan and Aristostigmat, all by Meyer, were replaced by the Meyer Anastigmat Trioplan f6.8 and the Meyer Doppel-anastigmat Veraplan at f6.8 and f5.5 plus a Goertzhagee-Doppel-anastigmat f6.3.

For Venus, Trioplan and Veraplan at f6.8 joined the Steinheil Unofocal. The advanced shutter option now had the fastest speed of 1/300th sec. With this the Goertzhagee Doppel-anastigmat was also available.

Whereas Rekord had been the entry level model so far, its position was now taken by Derby, an altogether basic 9 x 12cm plate camera. Wooden bodied, it is covered in imitation leather, having a basic shutter with instantaneous and brief time exposures, and focusing by scale or on ground glass. The lens was either a simple Achromat, a Periscopisches Doppelobjectif or a Luxar-Aplanat at f7.7. The brilliant finder is mounted at the top of the lens panel, offset to the left.

Rekord was retained as the next level of plate camera for 9 x 12cm or 10 x 15cm plates (or film packs of course). It had a somewhat better level of finish, and the intermediate choice of shutter (1/25th to 1/100th second + a time exposure. There was a slightly larger brilliant finder, revolving for portrait or landscape use, with a spirit level attached, which was mounted centrally at the top of the lens panel. Lens choice included Luxar-Aplanat f7.7 and Rodenstock Hemi-Anastigmat f7.2.

The Viktor cameras for 9 x 12cm and 10 x 15cm are next in quality, with their lever focusing system as before. An astonishing range of eight lenses were available in the smaller size and with the intermediate shutter: Meyer Trioplan f6.8; Meyer Veraplan f6.8; Schneider Isconar f6.8; Rodenstock Euryrnat f6.8; Meyer Veraplan f5.5; Steinheil Unofocal f6.8 and f5.4 and the Goertzhagee-Doppelanastigmat f6.3. The larger version was offered with a slightly reduced choice of only six of those lenses.

One cannot but wonder what was in the mind of Ihagee in offering such a range of choice, or in the mind of the purchaser in buying one of these cameras, and having to select which lens to use. Could there be all that much difference between most of them? Ihagee were not alone in offering such a range, and a similar approach appears in contemporary catalogues of other Dresden companies.

The Patent Duplex camera, with double extension, is now in three sizes: 9 x 12cm; 10 x 15cm and 13 x 18cm. This continues as the really good quality Ihagee plate camera, and it was offered with a choice of three shutters: an intermediate version with speeds from 1/25th sec to 1/100th sec.; an Ibsso version with slower speeds of 1 sec to 1/100th sec, both with time exposures as well, and now for the first time, the advanced version was revealed as a dial-set Compur shutter with speeds from 1 sec. to 1/250th sec. + time. Eleven different lenses were available at this time, including Veraplan and Unofocal lenses each with a choice of three different apertures – f6.8, f5.5 and f4.5.

The Brilliant finder and spirit level were centrally mounted on the lens panel at this stage. In years to come, they were to move to the left side, like Derby. Rise/fall and cross movements of the lens standard and panel were vernier controlled as before.

The Triplex model of 1914 had disappeared from the 1919 list, but a similar camera, the Universal, for 10 x 15cm and 13 x 18cm now appears. A range of lenses and shutters echoed those of Patent Duplex, and the main

differences were the provision of a triple extension facility in the focusing rails, and the square format body, with a revolving back, which allowed the plates to be used in portrait or landscape mode.

A totally new venture for Ihagee was the Tropical or Tropen Neugold. Only supplied in 9 x 12cm format at this stage, it was really a version of the Patent Duplex, but made in the stylish tropical manner, with polished mahogany body and folding bed, brown leather bellows, and with the metalwork in lacquered brass. Some were supplied with the housing of the shutter "Gold-Plated", whereas others are known to have the normal black finish for the shutter.

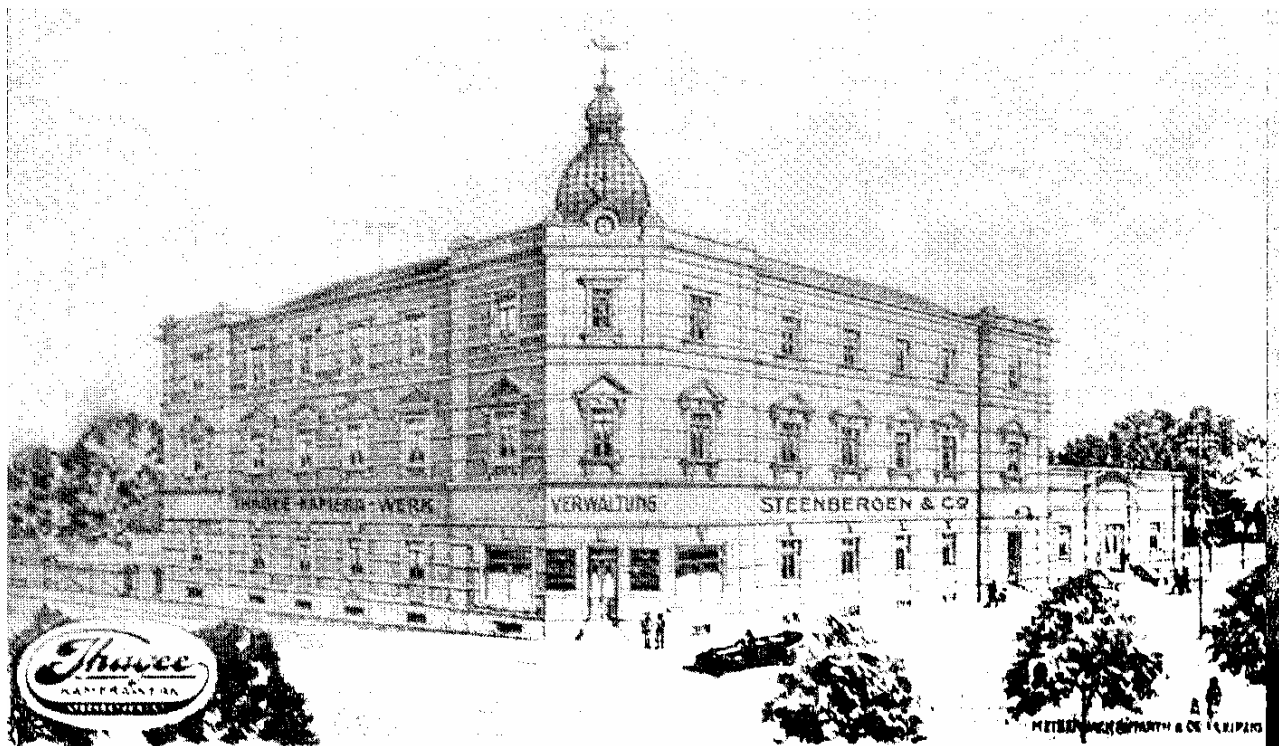
The camera was designed for use in tropical climates, allegedly to resist the humidity which could quickly rot less durable models. Several leading manufacturers produced similar cameras.

The shutter choice in 1921 was the Compur, (1 to 1/250th), with a range of at least twelve lenses from the Meyer Veraplan (three different apertures), or Goertz doppelanastigmats, in the Ihagee version or the Dagor or Dogmar versions. One could also order Schneider, Rodenstock or Steinheil equivalents. The little Brilliant finder was mounted centrally above the lens.

The Corona of Emil Englisch, which had previously been listed without lens or shutter, was now supplied, optionally, with the Meyer Veraplan lens in a Compur shutter. Walnut wood was listed as the main material used in its construction.

Lumimax enlargers were listed as before.

Growth must have been fairly rapid, for by the spring of 1922 a separate administrative office was needed, and this was set up just round the corner at 51 Grillparzer Straße, right on the north-east side of the crossroads. The setting up of administration offices nearby must have released significant floorspace for increased production. Today it is a corner pub with offices above.



Ihagee illustration of the Administrative HQ at 51 Grillparzerstraße

(Ihagee illustration)



The Administrative Office building at the corner of Grillparzerstraße (left) and Steinbacher Straße. Photo taken in 2006

(PML)

1922

The catalogue for 1922 that forms part of my collection is printed in Dutch. Not that this makes much difference, for it is very nearly the same as the German version for the previous year. There are however two significant changes. Firstly, this is the year when the business address at the beginning of the catalogue is now given as:

Administration Building: Grillparzerstrasse 51. tel: 23711
 Factory Building: Gottfried-Keller-Strasse 85. tel: 20712

Secondly, a significant and new camera name appears for the first time: Ultrix. I have noticed that the emergence of a new model has, more than once, been recorded at the back of the catalogue rather than with a fanfare at the beginning! So I will leave that aside for the moment, and look at the rest of the 1922 entries. Plan Paff and Roll Paff seem very similar to the details recorded previously, but the cocking lever on the front of both models has been developed from something resembling a sliding stud to a curved nickel plated lever, across the front, above the lens, which is much easier to operate. Photographs are included for the first time, taken by the Paff, and reproduced at contact print size.

Photoknips does not feature in this edition of the catalogue for some reason, but it does return in the future.

Mikrobie and Venus seem unchanged, except that Venus has one less lens than before; the Unofocal version being omitted. As if to recognize the convenience of this landscape format camera in specialized fields, a Compur shutter now appears, giving a choice of three.



Photoklapp „Microbie“

4,5 × 6 cm. Für Platten und Filmpacks

Die beliebteste Miniatur-Kamera

Gebaut nach dem bewährten Prinzip unserer „Viktor“-Kamera, ausgestattet mit guter Optik und Präzisionsverschluß, bildet die „Microbie“ **die ideale Ausrüstung für den bequemen Amateur.**

Trotz der hochvollendeten Präzisions-Ausführung hat die Kamera die denkbar kleinsten Dimensionen. Der „Viktor“-Hebel ermöglicht ein schnelles Arbeiten und Einstellung auf Nähe – Die Bilder 4,5 × 6 cm lassen sich mittels des „Lumimax“-Apparates in denkbar einfachster Weise auf jedes Format vergrößern.

Bezug durch die Photohandlungen,
Auszugs-Preisliste auf Verlangen.

IHAGEE Kamerawerk Steenberg & Co.,
Dresden-Cotta 85

4

A 1922 advertisement for Mikrobie

Ihagee advertisement 1922

Derby continues as the basic folding plate camera, but now with only two lenses – the Achromat being omitted.

Rekord is dropped, but the Viktor family is extended with the addition of a 6 x 9cm model. This has a brilliant finder at the top of the lens standard, offset to the left. All the Viktor cameras now have a choice of only two lenses – Trioplan and Veraplan, but otherwise the model is unchanged.

Patent Duplex continues as the flagship model, but as with other models, the range of lenses is reduced to Trioplan at f6.8; Veraplans at f6.8, f5.5 and f4.5, and the Goertz Ihagee Doppelanastigmat at f6.3. The 13 x18cm model now has only Veraplans at f6.8 and f5.5

Tropen Neugold now had two shutter choices – the intermediate Ibso shutter (1 to 1/100th) or the advanced Compur as before. Lens choice was reduced to the three Veraplans also available for the Patent Duplex, the Goertz Ihagee Doppelanastigmat at f6.3, and a new introduction, the Goertz Doppelanastigmat Dogmar at f6.8 and f4.5.

Universal with its rotating back was now discontinued.

Corona is unchanged from the last catalogue. Vera Satz and the Lumimax enlargers, together with an enlarging frame, are also unchanged from last time.

Enter the Ultrix

Then, for the first time, the name Ultrix appears. This is the Ihagee version of the ubiquitous folding roll film camera, giving 6 x 9cm pictures. The film equivalent today would probably be 120. The body is wooden, leather covered. The back is completely removable, achieved by pressing two semi-circular catches towards the rear of the body sides. The folding bed is aluminium, black enameled, carrying a narrow plate with nickel plated rails, sliding on studs, and operated by a radial lever, with focusing scale, just like the Viktor series. The lens standard slides out to an infinity catch. A black leather bellows is fitted, and a choice of three shutters, intermediate (1/25th sec to 1/100th sec), the Ibso shutter giving 1 sec. to 1/200th sec, and the Compur, giving a top speed of 1/250th sec. The lenses were Trioplan f6.8, Veraplan f6.8 or f4.5 and Goertz Ihagee Doppelanastigmat f6.3. This is the first of many cameras to come bearing the Ultrix name.



The first Ultrix, a 6x9cm roll film camera, introduced in 1922
Body no.35101

(PML)



Viktor and Mikrobie share the same focusing lever
as the Ultrix above.

Viktor body no. 97287, Mikrobie body no. 7722

(PML)

CHAPTER FOUR 1923-1928

Schandauer Straße – “The House of a Thousand Hands”

It is interesting at this stage to refer to Dr. Neill Wright's *“Checklist”*, where on page one he refers to the early days of Ihagee. The detail relating to factories has subsequently been proved to be incorrect, as it also has in Aguila and Rouah's book *Exakta Cameras 1933-1978*. No criticism of either publication is implied in saying this; at the times that they were written, details of Ihagee history were very patchy and generalized. Little information was available from East Germany, and assumptions were made about factory addresses which only in later years were shown to be erroneous. This will be explained shortly.

However, Wright reveals the story of the visit to Dresden of Mr. F. Radnik, who was the London importer of Ihagee products in the early 1920s. He speaks of dining with Johan Steenbergen at a restaurant he called the Weisser Hirsch. This was probably from Mr. Radnik's memory; Weisser Hirsch is a district of Dresden, and the restaurant may possibly have been there. Steenbergen was described as a pleasant, rather shy man, who must have been a very competent businessman despite his reserved manner.

Radnik also mentioned the factory labour force as being “not large” (30 – 35 persons) and the company's practice of buying-in components, which must have made Ihagee far more important to the community than that figure suggests. It seems likely that this information must relate to the period just after the first move from Marcolinistraße to Gottfried-Keller-Straße, rather than the later move, which would not have been justified with such a small workforce. Although it has already been suggested that early in the Marcolini Straße days Ihagee had not made all their product line themselves, it is well established that much later, when Schandauer Straße was completed, everything except lenses and shutters was made “in-house”.

1923 –Karl Nüchterlein appears.

A significant piece of recruitment took place in April 1923. A young man named Karl Nüchterlein, aged 19, joined the Company as a designing mechanic. Born on 14th March 1904 in Dresden, he had received a traditional education. His interests were largely in technical subjects so it was no surprise when he entered into a three year apprenticeship with the Dresden typewriter manufacturers Seidel & Naumann. This he completed successfully in March 1921, but he perceived that his enthusiasms for solving mechanical problems would not really be satisfied in the typewriter industry. He needed a new opening with scope for creative work.

Hummel pointed out that the time was right for Nüchterlein to join Ihagee. Camera construction at Ihagee still emphasized woodwork, and the growing tendency elsewhere to change to metal construction was still of little importance there. As a designing mechanic he was well placed to bring metal construction to the forefront. Nüchterlein had no technical qualifications other than his apprenticeship. But he soon revealed his latent potential and introduced new ideas, developing his abilities in the process.

Even with the space released by moving the offices to Grillparzer Straße, Ihagee continued to grow, and the need for even larger premises soon became inevitable. The factory was surrounded by other buildings, both commercial and

residential, so extension was not practical. Only a new, purpose-built factory could now be the answer.

Right across the city, to the east of the centre, is the district of Striesen, where there was already a concentration of photographic manufacturers. Here a piece of land was acquired by Steenbergen in 1922, interestingly from a Dutch company, Schaap & Co. of Amsterdam. It was about 100m deep, on the south side of Schandauer Straße, (a main road and tram route from the city centre), at the corner of Bergmannstraße. Off Bergmannstraße to the rear of the site was, and still is, Glasshütter Straße, a minor road which was little more than a service road.

This was an area of mixed uses, with local shops, residential properties and commercial premises. About ½ mile further to the east, on the same side of Schandauer Straße, was the large factory that once housed Ernemann, later Zeiss Ikon, and most recently, Pentacon. Today it houses the Dresden Technical Museum.

Ihagee built the first phase of their new factory in 1923. It amounted to 5000 square metres. Fronting onto and numbered 24 Schandauer Straße, the building had five full floors above a semi-basement. Illustrations in the Yearbook for 1927/28 are, alas, in my copies, not really good enough to reproduce here, but show overhead mechanical shafting in many parts of the building, driving machinery by means of flat belts. It is not clear what motive power was used; descriptions of the factory are silent on this point. The cellars were heated for the drying of wood, and it might be thought that steam power was more likely, although illustrations do not reveal any chimney, and descriptions of the use of various floors do not mention either boilers or engine rooms.



Ihagee-Kamerawerk Steenbergen & Co, Dresden-Striesen

Ihagee catalogue 1926

Woodworking machinery was on the ground floor, camera carpentry on the first, together with the storage of raw materials. The second floor was used for metal processes: tool making, turning, milling, grinding, the mass production of all components. Here also was the press shop.

On the third floor was the storage of raw metal, of metal components produced downstairs, and the montage department. After the components had been processed in the mechanical workshops they were sent in boxes to the wing of this building (i.e. facing Bergmannstraße) where they were ground, polished, painted and stored. The montage department then assembled the various cameras, which were sent to the warehouse without optical components. The setting service dealt with that stage, according to incoming orders, and also did any required engraving.

The fourth floor was the home of bellows making, bookbinding and associated machines. The kitchen and lunchroom for staff was on the top floor.

More suited to our interests may have been the exhibition room adjoining reception, where all the company products were on show.

At the rear of the building was a sawdust cyclone, and all woodworking machinery was fitted with dust extractors.

In 1924 an independent Ihagee company was registered in The Hague. Even at this early stage in Ihagee history, could there have been underlying reasons for this, apart from marketing and export factors?

Whilst we are considering the early 1920s, it is also interesting that Hugo Ruys mentioned this period in an article in *Photohistorisch Tijdschrift* (the Dutch Collectors' Club magazine) in 1984. His researches had been assisted by the late J.M.H. Heynderickx, the former Ihagee importer in Holland, who would have known Steenbergens well, and also by the Steenbergens family. Speaking of the Gottfried-Keller-Straße days, he says that Steenbergens worked very hard under difficult financial circumstances; sometimes his only decent meals were with his clients. It is recorded by Neill Wright that Radnik paid for the meal at Weisser Hirsch. Inflation in Germany then was colossal, and when Radnik visited, the mark was falling from 400 to 1000 to the £. The cost of the meal to Radnik was about 3 shillings! Inflation continued, and Ruys mentions that in November 1923, the postage on a postcard to Holland was 2,400 million marks. Happily for us, Steenbergens survived all these traumas.

1925

The next catalogue in my collection is that for 1925. Ihagee had by now moved to their new factory at 24 Schandauer Straße in the Striesen district of Dresden. The frontispiece of this catalogue was an artist's impression of this imposing building from the north-east. There was a pillared portico on the front (north) elevation. The building was five floors above a semi-basement, and the roof space was used, lit by several small Dresden-type dormer windows. It was faced in Elbe sandstone.

The Paff range had now been expanded. Plan Paff could be had in two sizes – 4.5 x 6cm as before, plus a larger version, giving pictures 6 x 9cm (film packs) or 6.5 x 9cm. (plates). The smaller one still has a fixed focus lens. either an achromatic lens or a Trioplan anastigmat. The larger version was similarly equipped, but the Trioplan could, as an extra, be fitted with a focusing mount. The catalogue illustration shows, additionally, a rear focusing screen in folding hood. Quite why this was provided when the camera could use the reflex screen for the same purpose is not clear. An Ihagee idiosyncrasy, perhaps.

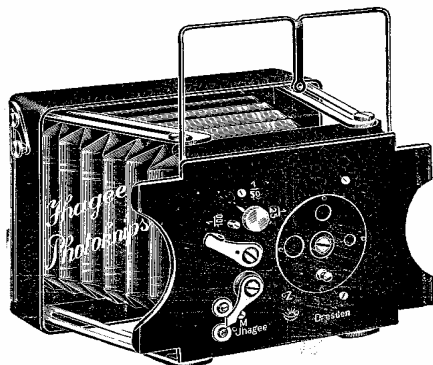
The Roll Paff also has a version with a focusing lens, but being a roll film camera, the user had to be satisfied with the reflex focusing screen!

The 4.5 x 6cm Photoknips now reappears, but with a redesigned front plate to facilitate opening the camera. There is no leather covering, instead both

body and lens plate are black enameled in a crackle finish. There are two models, both for plate and film pack use. The simpler version has an achromatic lens in a more refined basic shutter giving three instantaneous speeds, 1/25th; 1/50th and 1/100th sec. plus the brief time facility. The speeds are set by a rotating nickelled knob on the lens plate, together with a lever to select instantaneous or brief time, and the shutter release. Aperture control is effected by having a rotating disk in front of the lens, with three holes of appropriate size. The better version differs in that the lens is a Trioplan f6.8, and the Pronto shutter, in its conventional housing, is recessed into the lens panel. The speeds are similar to those of the simpler model, but are dial-set. A lever moving across the bottom of the shutter housing is used to set the aperture. The viewfinder is a wire frame rectangle as before, folding down across the lens panel when not in use.

Ihagee „Photoknips I“

Für Platten und Filmpacks 4,5×6 cm



Gewicht 120 Gr. Maße 9×2×6,6 cm

Bequem

in der Westentasche zu tragen!

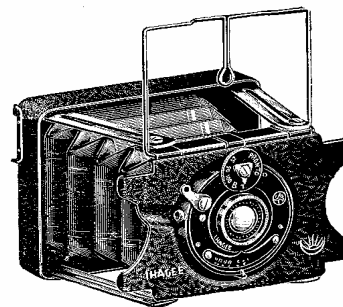
Ausstattung: Gehäuse und Objektivteil aus Aluminium gearbeitet und schwarz lackiert. Beschläge, Spreizen und Rahmensucher vernickelt. Schwarzer Lederbalgen. Verschluss für Zeit und Moment von 1/25 bis 1/100 Sekunde. Prima achromatische Linse. Revolverblende mit 3 Öffnungen. Visierscheibe mit Lichtschutz. Eine Metallkassette.

| Bildgröße 4,5×6 cm | Nr. | Preis: RM | Tel.-Wort |
|------------------------------|-----------------|-----------|-----------|
| Kamera mit einer Kassette | 1 | 15.— | Zelt |
| Extrakassette | 1000 a | —,90 | Fuß |
| Drei Metallkassetten in Etui | 1000 a/3 | 3 60 | Dreifuß |
| Filmpackkassette | 1023 a | 3.50 | Fibel |
| Wildlederbeutel | 1730 | 2.50 | Wildleder |
| Drahtauslöser | 2152 | 1.30 | Draht |

Ihagee „Photoknips II“

Dieser Apparat kann geschlossen bequem in der Westentasche getragen werden.

Ausstattung: Gehäuse und Objektivteil aus Aluminium und schwarz emailliert. Alle übrigen Metallteile vernickelt. Lederbalgen. Drahtauslöser. Prontoverschluss für Zeit und Moment 1/25 bis 1/100 Sekunde. Anastigmat Trioplan 1:6,8. Drahtsucher. Iris-diaphragma. Visierscheibe mit Lichtschutz. Drei Metallkassetten.



Gewicht 150 Gr. Maße 9×2,2×6,6 cm

| Bildgröße 4,5×6 cm | Nr. | Preis: RM | Tel.-Wort |
|---|-----------------|-----------|-----------|
| Kamera mit Ihagee-Anastigmat 1:6,8 6,5 cm | 2 | 37.— | Zelle |
| Extrakassette | 1000 a | —,90 | Fuß |
| Drei Kassetten in Etui | 1000 a/3 | 3.60 | Dreifuß |
| Filmpackkassette | 1023 a | 3.50 | Fibel |
| Portrait-Vorsatzlinse im Halter | 1279 | 2.— | Anzug |
| Wildlederbeutel | 1730 | 2.50 | Wildleder |

Ihagee (img alt="Ihagee logo: a stylized sun or flower symbol") Dresden

5

Ihagee catalogue 1926

The range of folding plate cameras for 1925 started with Mikrobie at 4.5 x 6cm with a choice of intermediate Pronto or advanced Compur shutters; and Venus in landscape format at 6.5 x 9cm, with the same choice of lenses and shutters as previously. Derby as the basic entry level 9 x 12cm model is now joined by Ama. These two models are very similar in lens and shutter provision, but Ama has a very slight advantage in quality.

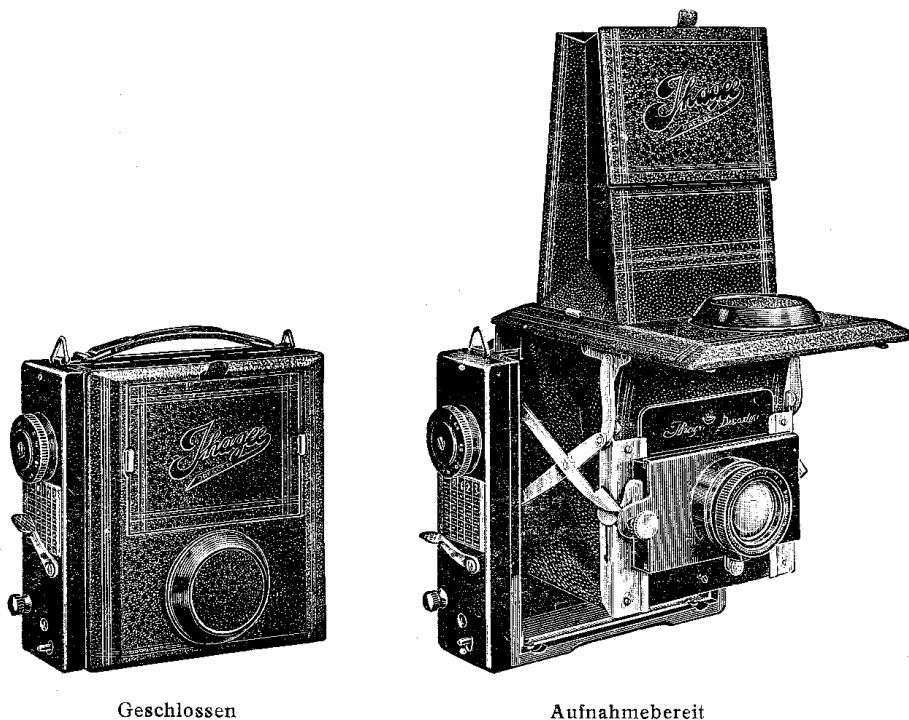
Viktor with the radial focusing lever continues in the three sizes that had been supplied previously, with the choice of Ihagee-Anastigmat or Meyer Veraplan lenses in a choice of two shutters, giving the ubiquitous 1/25th to 1/100th sec speeds (plus brief time) in a basic version or an Ibso (in the two larger sizes) 1 to 1/100th sec.

Patent Duplex could now be had in four sizes. A smaller version giving pictures 6.5 x 9 cm. was added to the catalogue. The three smaller models have three shutters, the unnamed basic one, the Ibso and the Compur. Lens choice narrows to an Ihagee Anastigmat, f6.8, three Veraplans and the Goertz Ihagee Doppel-anastigmat. The largest format model narrows the choice of lenses to two Veraplans – f6.8 or f5.4.

New in 1925 is the Luxus Duplex. In essence, this is the Patent Duplex in its four sizes, but with the lens standard and other metal parts in a highly polished nickel finish. The plate holders are finished in "German Silver". The shutter was a Compur, and lenses an f4.5 Veraplan or an f4.5 Dogmar.

The Tropen Neugold, hitherto only available in one size, 9 x 12cm, now appears in three sizes, with 6.5 x 9cm and 10 x 15cm being added to the range. Shutter choice is reduced to one – the Compur. Lenses are mainly the three Veraplans (f6.8, f5.4 or f4.5) or Dagor/Dogmar.

1925 now saw the introduction of a new and unique camera – the Patent Klapp Reflex (or Folding Reflex), lovingly referred to as PFR in English:



Geschlossen

Aufnahmebereit

Ihagee catalogue 1926

This camera is so unusual in its structure that it is rather difficult to describe. In the 1978 book, *Camera Collecting* by Jason Schneider, the author describes the PFR as "an unfolding enigma" and continues thus:

"Our patent folding reflex is a 6.5 x 9cm (approximately 2¼ x 3¼ in.) constructed of hardwood (probably mahogany) clad with real tooled leather. From here on in, its specifications get more and more curious. In its folded position, you are greeted by a 5¾ x 5¾ x 2½in. box with a strange looking protruberance on what looks like the front. It resembles the so-called Continental tire enclosure found on some 40's American cars.

The right side looks fairly conventional with a large circular wind-up shutter speed dial above, a smaller nickel-chrome counter-clockwise turning spring tension knob below and a long chromed shutter release lever in the middle. The "spring tension and slit width" table common to the large focal plane shutter breed (here labeled Federspannung und Schlitzbreite) sits between shutter release and speed dial. Two smaller levers down at the bottom control "T" and "B" and allow you to release spring tension respectively, completing the right side array.

Okay, you've got this fascinating thing that looks like a camera, and you can tell the back is the back by noting that a slide in".."(plate holder)..."lives there. Now what? Now you look for a hinge on one side and a button to press on the other, a tripod socket suggesting what might be the bottom. Yup, that's right, the hinge is now on top and when you press the button on the lower left side, you lift the top until it clicks into position. In the process it unfolds the strangest looking square bellows you've ever seen. Sure enough, there's the lens hanging from underneath, supported by two hefty nickel-chromed scissors struts on the sides. Two smaller struts support the roof you just folded upward, lending stability to the whole camera in shooting position.

All of a sudden the thrill of discovery fades. How the blazes do you view and focus the contraption? Examining the newly erected top, you notice a funny looking rectangle that says "lhagee" on it, held in place by spring clips on either end. Lift it out and you've got your standard large-SLR chimney-type focusing hood. The focusing image is large and bright, aided no end by a well-silvered front surface mirror.

Finally, you ask yourself the 64 Deutschmark question, "to what end all this mechanical legerdemain?" True, the lhagee Patent 6 x 9 is portable, has a top shutter speed of 1 1/000 (and down to 1/1/15th sec) and focuses to a not-too-close 5ft, but it's also got something no Graflex ever had - a blistering ½in.lateral movement of the front standard, available by unscrewing a knurled lock to the right of the lens and shifting the lensboard. One wonders whether all that trouble was worth it, especially since the lhagee's preset single helical mount, 120mm f/4.5 Zeiss Tessar lens is essentially non-interchangeable. Still, the lhagee Patent is a genuinely antique, rare, functional camera...."

(Schneider J. 1978)

Of course, Schneider was looking at one model of a camera first produced some 63 years earlier. In fact, in 1925 there were two sizes of this camera available, in the 6.5 x 9cm model (as reviewed by Jason Schneider) and a larger variation at 9 x 12cm. Both were supplied with the f/4.5 Zeiss Tessar, but also the Meyer Veraplan, Schneider Xenar and Goertz Dogmar. (the latter having an aperture of f3.5 in the larger format camera) Also provided, and built in to the

folding focusing hood was a wire frame viewfinder. Would such a finder really increase the versatility of such a sophisticated camera? Similarly, a rear focusing screen is fitted, with hood. Given the facility of the reflex focusing screen, who would be likely to use a rear screen, with its upside-down image?

But whose design was the Patent Klapp Reflex? Richard Hummel regarded Karl Nüchterlein as its creator, but Werner Wurst thought otherwise. In a letter to Dave Wodinski, an American collector in December 1978, Wurst says:

"A very decisive step in this development (of the SLR) came when Ihagee bought the manufacturing rights to the Patent-Klapp-Reflex from the Dutchman Willem Brandsma of Amsterdam. (My recollection is that the design of the focal plane shutter was also bought, but the designer's name is not known to me). The Ihagee Patent-Klapp-Reflex was made in different sizes.....and became one of the best models on the world market."

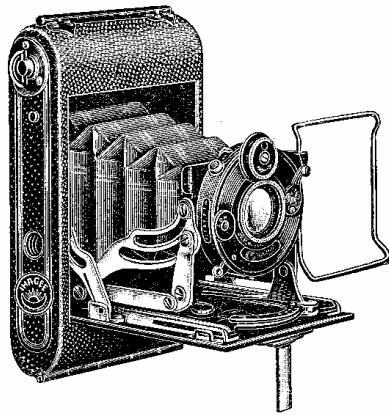
(Wurst, 1978)

According to Stein Falchenberg, the basic design of the focal plane shutter was the work of one Bernhard Sommer, to be developed further by Ihagee.

This subject was debated further in an article by Peter Heimbach, (Exakta Times, December 1996). He revealed that Brandsma possessed two German Patents: 236 867, Zusammenlegbare Reflexkamera (Folding Reflex Camera) 15th March 1909, and 237 219, Zusammenlegbare Reflexkamera 6th October 1909. The second was an extension to the first. But neither design linked the raising of the mirror-flap with the release of the shutter. Three later patents, dating from 27th February 1924, 25th July 1924 and 8th January 1925 are in the name of Ihagee Kamerawerk, without the name of the inventor. The two later patents now involve the shutter regulating the mirror-flap, closing it up automatically before exposure.

Heimbach points out that Nüchterlein was nineteen years old when he started at Ihagee in April 1923. The camera was patented ten months after he joined, and considering the time likely to be taken to prepare a new camera for the Leipzig Spring Fair in 1924, there was probably insufficient time for Nüchterlein to be deeply involved in the development. But there is no real evidence that he did not play a part in the realization of the design and in the additional development of the patent.

A novel miniature camera was introduced in 1925. Continuing the newly created tradition of naming folding rollfilm cameras Ultrix, a 4.5 x 6cm Ultrix-Automat appears, which as the name implies, is self-erecting upon opening. Aluminium bodied, with leather bellows, it utilizes a different set of struts to support the lens standard. The folding bed was supported on side struts similar to all the plate cameras and the Ultrix cameras, but a more complicated set of nickel plated struts operated just inside them, automatically erecting the lens panel.



Ultrix Automat

Ihagee catalogue 1926

A radial lever is used for focusing, by scale, and it is not dissimilar to that used on the Viktor cameras, except that it operates across the front of the bed, rather than at the side. Pronto or Compur shutters were available, as were a range of four lenses – Ihagee Anastigmat, f/6.8, Veraplans at f/5.4 or F/4.5 or Zeiss Triotar at f/6.3. This size of camera would have utilized the roll film later standardized as 127. It is very rare.

The Ultrix range now began to grow. A basic model - Ultrix Simplex - was introduced in two sizes – 6 x 9 and 6.5 x 11cm. Facilities are at a bare minimum, with a Periscop lens in a basic Perko shutter (presumably just instantaneous and time), or a Luxaraplanat in a basic Vario shutter 1/25th to 1/100th. Apertures were not specified, and the wooden body is covered in artificial leather. Focusing is by scale.

The Ultrix continues with a wooden bodied version in three sizes. 6 x 9cm, 6.5 x 11cm and 7.25 x 12.5cm. The metal back carrying the pressure plate is removable, using the two finger catches referred to in the 1922 version. Three shutter choices were offered, Vario, Ibsco and Compur, and lenses started with an Ihagee Anastigmat f/6.8, Veraplan f/6.8 and a Goertz-Ihagee-Doppel-Anastigmat at f/6.3. A Brilliant viewfinder is mounted to the left at the top of the lens standard. As mentioned previously, the radial focusing lever, like that in the Viktor range of plate cameras, is mounted on the right side of the bed.

In the 6 x 9cm size, a better quality Ultrix was introduced, with an aluminium body, which allows the back to be more easily opened. The range of lenses is slightly better than the preceding model, with Veraplans f6.8, f/5.4 and f/4.5. A Goertz Ihagee f/6.3 and a Goertz Dogmar at f/4.5 complete the range.

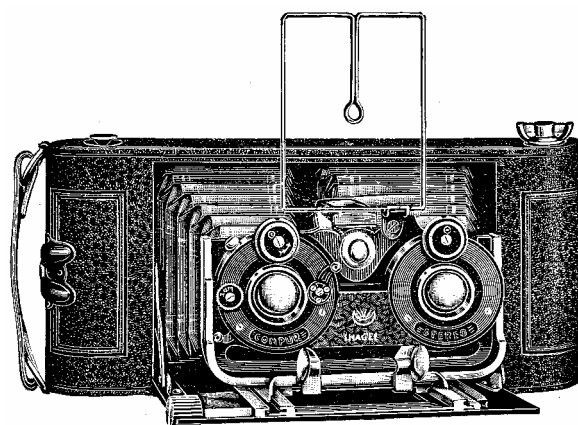
A new variation to the Ultrix family was introduced in 1925 with the Ultrix-Duplex. (opposite) As the name implies, this camera was provided with double extension, as in the Patent-Duplex plate camera range: body no. 268241



(PML)

In this version however, the wooden body is fitted with a special metal back suitable for use with conventional roll film, but also equipped with a removable centre section, carrying the pressure plate, removal of which enables the use of dark slides for glass plates, or a film pack holder. The use of glass plates also makes possible the use of a hooded focusing screen, instead of focusing by scale when using roll film. The choice of shutters and lenses was the same as the preceding Ultrix.

The use of the Corona camera continued, now constructed in Mahogany. Four sizes were offered, 10x15, 12x16.5, 13x18 and 18x24cm. It could be had in a bare form, without lens or shutter, or using the Compur shutter, three grades of Veraplan – f/6.8, f/5.4 or f/4.5. I am always amused at the use of "Travelling" camera as a description of Corona. It must have been quite a burden, with all its accessories. But I am regarding this from many years later with the greater sophistication and miniaturisation of the 21st century!



Ultrix Stereo

Ihagee Catalogue 1926

1925 saw the introduction of two stereo cameras. Ultrix – Stereo seems in effect to be a stretched version of the Ultrix roll film camera, providing a double width lens panel with two shutters and lenses side-by-side. The picture aperture is 7.25

x 31.5cm, although this will supply two stereo images. Four 8cm lenses were provided – Ihagee Anastigmat f.6.8; two Veraplans at f5.4 and f4.5; or a Zeiss Triotar of 9cm focal length and f.6.3 aperture. A basic Pronto shutter giving 1/25th to 1/100th sec. or the advanced Compur shutter were options.

This roll film model was shown alongside a plate camera, Photoklapp Stereo-Automat using plates or film packs 6 x 13cm. Instead of the rounded ends of the rollfilm version, this camera had the square ends of a typical plate camera body, but the double lens panel was supported by the automatic feature just described for Ultrix Automat. Lenses and shutters were the same as the Ultrix-Stereo. I have never been able to understand why the roll film and plate versions of what is essentially the same camera had to be so different.



Photoklapp Stereo-Automat

Ihagee Catalogue 1930

Lumimax enlargers again appeared before the last page of the catalogue. In addition to the light box type of structure, using a plate camera for lens and focusing, the Simplex-Lumimax appeared. More resembling the later type of vertical enlarger, a wooden frame was to be affixed to the darkroom wall, to which the lamphouse/plate camera was attached. A range of movement was possible, determining the size of enlargement (or even reduction), with focusing provided by the mounted camera. The illumination provided to the negative was direct rather than the reflected indirect lighting of the earlier types. There was no mention of opal glass diffuser or condenser lens in this model.

The normal range of accessories was omitted from this catalogue, apart from the Ihagee-Satz. Note the change of name from Vera-Satz.

Even though the new building is claimed to have had space for 500 employees, a branch factory at the nearby 79 Augsburger Straße was opened in September 1927. The author's recollection is that this was yet another "backyard" building, behind flats which carry the same postal number. As with Marcolini Straße, redevelopment has replaced the rear buildings. Here about ten people were employed to do the crude cutting of wood and metal, delivered straight from suppliers. This was only a temporary arrangement, because an large extension was planned to the main building, which would be started in 1928.

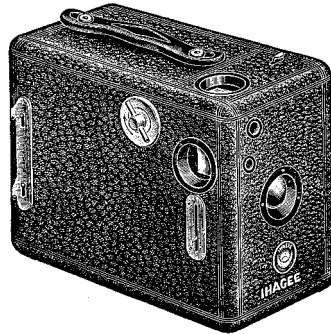
1925/6

There was little change in the 1925/26 catalogue from the preceding year. Tropen-Neugold was now constructed of Teak rather than the Mahogany used hitherto.

In most instances, the use of the Ihagee-Anastigmat as a fairly basic lens is now replaced by the phrase Anastigmat Trioplan.

The Patent Klapp (Folding) Reflex, which in the previous year had appeared in two sizes, 6.5 x 9 and 9 x 12cm, was only being offered in the smaller size in an English language edition in 1926, but other editions for the same period were offering three sizes, 6.5x9cm, 9x12cm and also 10x15cm. The choice of lenses was reduced to the Veraplan and the Tessar.

Another catalogue issued for 1926 contained a number of changes. Hitherto, Ihagee had not made one of the ubiquitous box cameras. Now, a box camera titled Roll Paff appeared – a basic box camera for roll film 6 x 9cm.



Roll Paff

Ihagee Catalogue 1926

A non-focusing achromatic lens with a basic instantaneous + time shutter was supplied. In order to avoid confusion, the previously entitled Roll-Paff and Plan-Paff were renamed Roll Paff Reflex and Plan Paff Reflex respectively.

The opinion has been expressed that Ihagee sometimes launched a model in the catalogue to test the market. There may well have been a prototype or two of Roll-Paff prepared, but there is no record of anyone actually owning one, or indeed, having seen one! Ihagee Historiker Gesellschaft did however acknowledge that one was known to have been listed somewhere, and even quoted a body number.

The two versions of the Photoknips were renamed Photoknips I and Photoknips II.

Two versions of Ama, the 9 x 12cm plate camera appear. The previous model is joined by a very slightly different model with a limited range of lens panel movement and a spirit level on the brilliant viewfinder. Focusing by scale or hooded ground glass screen could be used.

This catalogue re-introduced a range of accessories, in addition to Lumimax enlargers and the Ihagee-Satz. Tripods were shown, as were a stereo viewer, Stereolux, and a stereo sized contact printing frame.

This was the year when Karl Nüchterlein was promoted to "Works Master Mechanic", a position above foreman, and under the Chief Mechanic. He had pioneering ideas and the courage to implement them. He played a large part in helping Ihagee to gain a world-wide reputation.

Dresden - Striesen

Now, let me correct a widely held misconception. Advertising in 1925 and subsequent years referred to the location of Ihagee as Dresden-Striesen, usually with a number as suffix. In various publications, different numbers were used, and this led to their misinterpretation as giving postal addresses in a street called 'Striesen'. Indeed, both Dr. Neill Wright and Aguila and Rouah mentioned this in their writings, and, as a result, A&R referred to Ihagee having five factories in

Dresden in the 1930s. This was not so. Striesen is of course the district of Dresden where Schandauer Straße is located. 'Dresden – Striesen' is normal usage as a location, but not a specific address. The numbers quoted were codes, and varied according to the publications in which the relevant advertising appeared. Hence, for example "Ihagee-Striesen 176" referred not to an address, but to advertising in *Photographische Rundschau und Mitteilungen* in the 1920s and 30s. Clearly now, with hindsight, we see that the codes were intended to show which advertising was most effective! (This technique is still in use today!)

1927

The catalogue dated 27th February 1927 seems, at first glance, to contain few changes from the previous edition. The Paff range is the same as before, and the box camera, Roll Paff, is now advertised in three sizes – 4 x 6.5cm., 6 x 9cm., and 6.5 x 11cm.

The two Photoknips, I and II, and Mikrobie appear unchanged. A new version of the simple Derby plate camera now appears in 6.5 x 9cm size with basic shutter and lenses as well as the 9 x 12cm. version. The 9 x 12cm. Ama is now listed alone as the slightly better one that was listed in the last catalogue.

Viktor continues in three sizes as before, and Patent Duplex in four, the Luxus version similarly having four choices of size. Neugold is also as before.

The Patent Klapp Reflex has grown in size – there are now three sizes listed: 6.5 x 9cm., 9 x 12cm. and a new 10 x 15cm. model is added. Rather a large camera, this one!

A new arrival appeared in 1927 in the form of the beautifully named Zweiverschluss-Duplex. Available in two sizes, 6.5 x 9cm. and 9 x 12cm., this plate camera in Querformat (landscape) has, basically, all the features of a Patent-Duplex, but with one significant difference – it has two shutters; hence the name Zweiverschluss, which means just that.



Ihagee Zweiverschluss-Duplex 1020 – body no. 171361

(PML)

The vertically running focal plane shutter makes the camera body larger and heavier. It is the same shutter that appears in the Patent Klapp Reflex, with

speeds from 1/15th -1/1000th sec. The other shutter is in the conventional place for an Ihagee plate camera, between the lens elements, and available with either the intermediate Ibsor or advanced Compur shutters. Clearly, to use either shutter, the other must be open on Time. Greater versatility was offered with shutter speeds, between the two mechanisms, of 1 sec. through to 1/1000th sec. Contemporary advertising by Ihagee suggested its usefulness for sport, travel and portraiture.

The range of Ultrix cameras was not altered, nor were the stereo models. The great significance of this 1927 catalogue was the introduction of a new reference numbering system for all the Ihagee products. There had been a numbering system for ordering purposes before, but the significance of the new system was that it enabled instant identification of model and size in a simple three or four digit number.

The system omitted the Paff cameras for some reason, Plan Paff Reflex 4.5 x 6cm. was no.3 or 4, depending on lens; the 6 x 9cm. version similarly was 7 or 9. The 6 x 6cm. Roll Paff Reflex was numbered 20 or 21, again depending on lens, whilst the model with focusing facilities was no. 22.

The small 4 x 6.5cm Roll Paff box was no.50; the two larger ones were nos. 60 and 70.

Peculiar, this, because for every other camera produced, the last two digits of the model number indicated the size of the image produced. The first one or two digits indicated the particular model. Thus the simpler version of Photoknips was no. 100, with 1-- indicating the model and -00 indicating that it was a 4.5 x 6cm. camera for plates or film packs. The second version of Photoknips was no. 200

Derby was numbered 310, the -10 indicating a picture size of 6.5 x 9cm. for plates or film packs. The larger Derby at 9 x 12cm. was numbered 320, -20 indicating a picture size of 9 x 12cm, for plates and packs. Ama at 9 x 12cm. was 420.

Mikrobie, available only in 4.5 x 6cm, was no. 500, and this identified it as the smallest of the Viktor models. Other Viktors were 510, 520 and 530, i.e.6.5 x 9; 9 x 12 and 10 x 15cm respectively. Although Venus is basically one of the Viktor family, having the same features, it counts as a different model because of its landscape format. Thus it is numbered 610.

The Patent-Duplex group is numbered 710, 720, 730 and 740. This is the first time -40 has been recorded, and this suffix refers to a picture size of 13 x 18cm for plates and packs. The Luxus – Duplex is similarly numbered 810, 820, 830 and 840.

The Tropen Neugold continues the theme with models 910, 920 and 930.
(see over)



Tropen Neugold 920 - body no. 29692
This version lacks the golden shutter housing

(PML)

The new Zweiverschluss-Duplex carries on the number sequence with 1010 and 1020. The Patent Klapp Reflex is next, with 1110, 1120 and 1130.

Thus far the two-digit suffixes have referred to the use of plates or film packs. But when we come to the little Ultrix-Automat 1250 which uses roll film in a 4 x 6.5cm format, the suffix -50 is used to indicate just that. Ultrix-Simplex uses the number 1360, where the -60 indicates roll film or plates in the format 6 x 9cm (6.5 x 9cm in the model giving choice of plate or film).

The range of three Ultrix models are now identified as 1460, (6 x 9cm.; 1470 (6.5 x 11cm.) and 1490 (7.25 x 12.5cm.). Ultrix-Duplex, the model with double extension and the film/plate option, is numbered 1560.

The Ultrix-Stereo, the roll film version, is number 1690, where the -90 refers to an image (actually two images as it's stereo) of 7.25 x 12.5cm. The Stereo-Automat, the plate/film pack alternative, gives an image of 6 x 13cm. (double 6x6cm.) and is numbered 1715.

Lastly (at this stage) is the Corona in four sizes. 2030 indicates a picture size of 10 x 15cm. (plate or film pack), 2035 gives a picture size of 12 x 16.5cm. (plates only), 2040 refers to 13 x 18cm.(plate or film pack), and 2045 to the largest size, 18 x 24 cm.(plates only).

Ihagee-Satz, previously called Vera Satz, is in three sizes, but the numbering sequence changes, because the 70—digits indicate the range, whereas the last two digits refer to a range of variations of fittings and lenses/filters. Many other accessories also use the 70—system.

The four varieties of Lumimax enlargers, the first of which, Starkstrom Lumimax, operates by hooking the plate camera body onto the light housing, logically follows the standard sequence - 5000, 5010, 5020, 5030 and 5040 using camera bodies of corresponding sizes. The second, Berufs - Lumimax, using four bulbs in the housing, only requires use of the camera lens, and 5140 leads us to a negative size of 13 x 18cm., and 5145 to 18 x 24 cm.

Simplex Lumimax, which can be wall mounted, together with a sliding frame to adjust the size of the projected image, follows a standard sequence: 5200, 5210, 5220 and 5230, using the appropriate plate camera.

The top of the range, a wall-mounted Universal Lumimax, which did not require the use of a camera, and could be had with or without an Ihagee-

Anastigmat f.6.8, had a range of eight sizes from 4.5 x 6cm, (5300) to 13 x 18cm. (5340).

To summarise these size codes, *Ihagee Historiker Gesellschaft* produced this table. Remember that the first one or two digits refer to the model concerned:

| | | |
|------|-----------------|-----------------------|
| --00 | 4.5 x 6cm | plates/packs |
| --10 | 6.5 x 9cm | plates/packs |
| --13 | 9 x 9cm | plates |
| --15 | 6 x 13cm | plates/packs (2x 6x6) |
| --20 | 9 x 12cm | plates/packs |
| --30 | 10 x 15cm | plates/packs |
| --35 | 12 x 16.5cm | ½ plate |
| --40 | 13 x 18cm | plates/packs |
| --45 | 18 x 24cm | plates |
| --46 | 24 x 30cm | plates (Corona) |
| --50 | 4 x 6.5cm | rollfilm |
| --60 | 6 x 9/6.5 x 9cm | rollfilm |
| --70 | 6.5 x 11cm | rollfilm |
| --75 | 8 x 10.5cm | rollfilm |
| --85 | 8 x 14cm | rollfilm |
| --90 | 7.25 x 12.5cm | rollfilm. |

Simplex = single extension; Duplex = double extension
Triplex = triple extension.

This is probably a convenient point to mention a couple of Ihagee features that have not previously been referred to.

The first is the Ihagee badge that appears on most of the cameras current at this stage in Ihagee history. A small circular disk, bearing the Steenbergen logo was to be found in various locations on the camera bodies. For example, on folding plate camera, it is to be found inside the main body of the camera, at the top right side looking in from the front. On some folding models, the mechanism makes this impractical, but in other cases, such as the Paff cameras, it appears on the front face, just below the lens. The following illustrations show the disk on the outside of the body of a Parvola camera, and the second shows the position inside the body of a Zwieverschluss. The design is a constant wherever it is found, although the metal used may be brass or aluminium.



PML



PML

The second feature is the design of the side struts that support the folding bed on both plate and roll film cameras. It may be a bit subtle, this, but the distinctive shape has enabled the author (or his wife) at many camera fairs to spot an Ihagee camera! These nickel plated struts have a distinct "shoulder" on their top edge. I am not illustrating this here, but there are sufficient pictures throughout these pages to make the point.

1927/28

In May 1927 Ihagee published, in addition to a small 16 page catalogue, a totally new style of catalogue, calling it a Jahrbuch, or Yearbook, printed by Johannes Passler, of Dresden. The text was in German, the page size 170 x 240mm.

Following an introduction, the first phase of 24 Schandauer Straße is illustrated, using a drawing that has been used previously. This was followed by a 10 page article, with illustrations, entitled "A walk through the Ihagee Camera Factory". It was written by Mr. Karl Weiss, and had been published in the specialist newspaper "The Photographic Industry". It is I think appropriate to set out the text here:

"One of the younger companies of the Dresden Camera Industry which have gained so much more importance in the last decade is foremost: Ihagee-Kamerawerke Steenberg & Co, Dresden. This company has moved up to the leading camera manufacturers of Dresden in a relatively short period of time. The Ihagee-Kamerawerk was founded in 1912 as the Industrie- und Handelsgesellschaft. As this very general name was the cause of considerable confusion with other companies' names, the company was registered later as Ihagee Kamerawerk Steenberg & Co Having originally manufactured cameras in small volumes, the company soon altered its production to consumer products and cheaper cameras.

The production volume increased further when the company merged with the older company Emil Englisch. Another result of the merger was

the addition of several competent camera technicians who are still shareholders of the company. Due to this increase in production the company had to move from the Gottfried-Keller-Straße to larger newly constructed premises. The new factory was built in the Schandauer Straße, number 24, in the area where there was already a concentration of manufacturers of photographic equipment. The 5,000 square meters of the new premises provided the opportunity for future expansion, the large factory building is expected to take up to 500 full time staff at present. The company also has a sales office in Holland. As regards the production in the Ihagee-Kamerawerke, the emphasis is placed on the manufacture of good amateur cameras for international demand, including cameras especially suitable for use in the tropics. We will expand on production details towards the end of our discourse; to begin with we will paint a picture of the various production places in our readers' minds.

The first areas we get to look at are the heated and aired cellars of the factory, in which finest grade wood is stored and dried. We notice in particular the practically positioned transmission installation. This sets in motion the operating machines in the floors above by shaft transmission. The dust free work atmosphere is provided by the clever placement of the dust extractors. We move on to the drying room. This is where the wood prepared for further processing is dried in temperatures of 60 to 70 degrees Celsius for a fortnight. Seven days of drying at normal temperature follows this process.

Above the cellars is the engine room which is very large, well aired and clean. The woodwork machines are all driven from the cellar, as explained earlier, and this type of transmission avoids accidents for the operators. The workers prepare the wood in lengths, widths and thicknesses required by means of band saws and circular saws. They then smooth, mill, plane and adjust the wood before it is glued in the carpentry and upon its return to the engine room smoothed and polished on double and single vertical grinding machines. These machines can produce extremely thin pieces of wood. In addition to these preparations, drills are used for the required mortices.

We continue our walk from the ground floor into the camera carpentry on the first floor. The gluing ovens get their heat from steam heaters. The processed wood is now glued and put into raw camera shapes. Those parts that will be put under considerable strain during use, or because of their size, are glued twice, three or even more times. The gluing of the wooden parts whilst they are heated is particularly important for cameras for tropical use. The heating is achieved by special ovens in which hot steam maintains an equal temperature for the iron plates on which the wooden parts are placed. The tropical cameras are simultaneously reinforced with brass corners. Afterwards the camera bodies are polished. This takes place for groups of cameras strapped in large frames to achieve an effective and even polish. The polishing process is made up of basic polishing, pre-polishing, and re-touching. At this stage the wooden cameras and tropical cameras are stored in the warehouse awaiting their completion.

Continuing our walk past the storage of raw materials, we get to the second floor where the metal processes take place in the mechanics department, followed by the tool manufacture, the metal stamping and winding department. The metal is cut for the stamping and punching

process and tools are produced for the work on wood and metal parts. This is also where all components are mass produced. This part of the factory features all modern machinery required such as cold saws, shaping machines, grinding machines, turning lathes, fretsaw machines and milling machines. Around the mechanical equipment there are work places for the mechanics themselves.

Everywhere we look the factory seems well organized with the main emphasis being placed on rational work processes for the camera components. The tools are also checked thoroughly and regularly to enable the mechanics to work with well maintained equipment at all times.

Further on we can see the cam presses, crank presses, hand balances as well as the manufacture of various components by means of stamping, perforating, bending, pressing and pulling and finally the finishing and quality control. The components are then put together following mechanical drawings or instructions to those workers unable to interpret these drawings. The metals used are aluminium, brass and nickel silver as well as sheet metal in various degrees of thickness.

On the third floor of the factory are the metal and raw metal storage, the montage department, and the component storage. After the components have been processed in the mechanical workshops they are sent in boxes to the wing of this building where they pass through the grinding operation, polishing and coating sections. Following these processes they are stored in the component warehouse.

Workers in the montage department put the components together for the various types of cameras. They are again checked for quality and sent to the warehouse without optical equipment. They are then sent on to the setting service according to the incoming orders. The setting service adds the optical equipment and sets it precisely to customer requirements. The main quality control checks them once again before they reach the dispatch department. In the setting service department there are also the engravers and other machinery.

Before we come to the end of our stroll through the works we find our way to the fourth floor, home of the bellows construction, book binding, or casing and fastening devices. The extensive warehouse for all kinds of leathers, calico linen and other materials shows the wide range of possibilities for the outsides of Ihagee cameras and additional equipment such as cases etc. The machines used on this floor are lever presses, machines for leather sharpening and dyeing machines, folding presses and others.

The kitchen and lunchroom for the staff are on the fifth floor. On our way back we come past the transformer station. This is also the room where roll film camera bodies are produced in five work stages. Owing to the large capacity presses, 1,000 pieces can be produced each day.

Our walk continues through the dispatch department, the administration and the reception. In an exhibition room we can see a display of the wide range of products of this factory. Instantly recognizable amongst the various models is the new Ihagee-Patent-folding-Reflex camera for plates and film packs, which when shut is only slightly larger than folding cameras in general. It is furthermore very sturdy and handy. Other models exhibited are the Ultrix roll film cameras. The solidly made tropical folding camera Neugold is interesting because of its double extension and hidden gear drive.

The folding camera Luxus-Duplex is manufactured in formats ranging from 6.5 x 9 up to 13 x 18cm. Other simpler models include Ama, Viktor, Venus, Derby and others. We also saw the smaller models such as Mikrobie (4.5 x 6cm) made to pocket size and the cheaper version Photoknips. We should also mention the well known best sellers of this house, Plan Paff (for film packs) and Roll Paff (for roll film) ranging from simple to top models in this series.

In addition to these popular models Ihagee have exhibited the solid travel camera Corona, as well as the stereo models such as Ultrix Stereo for roll film 7.25 x 12.5cm and Stereo Automat for plates and film packs 6 x 13cm.

Also worth mentioning is the popular Lumimax enlarger, which can also be used as a photo copier.

Our walk through this well organized, efficiently run company which is obviously enjoying an upward trend, demonstrated that Ihagee is well equipped to supply for the national and international demand for solid and photographic equipment."

(Karl Weiss, from Ihagee Year Book 1927. Translated by Suzanne Jennings.)

Another new feature of this year book, to be repeated regularly in the future by Ihagee, is a page devoted to the shutters and lenses being used in their cameras. As we have already seen, the shutters have developed in their specifications and names have changed. The front faces of four different basic shutters were shown, all offering time exposures plus speeds from 1/25th sec to 1/100th sec. All carried the name Ihagee, but in this complicated field, they must surely have been bought in from one of the specialist makers. Only in the intermediate (speeds from 1 sec through to 1/125th sec) and advanced versions (1 sec to 1/300th sec, plus delayed action) are the names of the maker given as Ibsor and Compur, respectively.

Ihagee

Objektiv-Verschlüsse der Ihagee-Kameras

Nachstehend lassen wir eine kurze Beschreibung der für unsere Kamera gebräuchlichsten Verschlüsse folgen:

Verschlüsse V für Zeit und Moment

$\frac{1}{25}$ — $\frac{1}{100}$ Sekunde

Modell V



Die vorstehend abgebildeten Verschlüsse sind Automatverschlüsse, d.h. sie sind stets gebrauchsfertig und brauchen nicht gespannt zu werden. Die Aufnahme wird gemacht, indem man auf den Fingerauslöser drückt oder, falls man dies vorziehen sollte, auf den Drahtauslöser. Diese Automatverschlüsse sind eingerichtet für kurze und lange Zeitaufnahmen und für Momentaufnahmen von $\frac{1}{25}$, $\frac{1}{50}$ und $\frac{1}{100}$ Sekunde.



Ibsor-Verschuß Modell I



Der Ibsorverschuß ist ebenfalls ein Automatverschuß. — Die Aufnahme wird gemacht, indem man auf den Fingerauslöser oder auf den Drahtauslöser drückt. Der Ibsorverschuß ist eingerichtet für kurze und lange Zeitaufnahmen und für Momentgeschwindigkeiten von 1 bis $\frac{1}{125}$ Sekunde, je nach Größe des Verschlusses. Bei kleineren reicht sie bis $\frac{1}{125}$, bei größeren bis $\frac{1}{100}$ Sekunde.

Compur-Verschuß Modell C



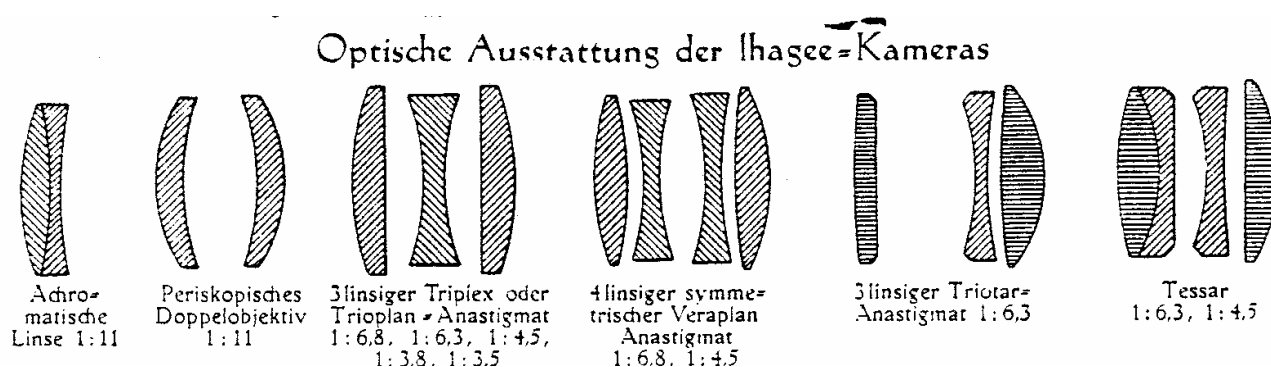
Der Compurverschuß (auch wohl Compoundverschuß genannt) ist ein sehr sinnreich ausgedachtes Uhrwerk. Die Aufnahme wird gemacht, indem man auf den Fingerauslöser oder auf den Drahtauslöser drückt. Der Compurverschuß ist eingerichtet für kurze und lange Zeitaufnahmen und für Momentgeschwindigkeiten von 1, $\frac{1}{2}$, $\frac{1}{5}$, $\frac{1}{10}$, $\frac{1}{25}$, $\frac{1}{50}$, $\frac{1}{100}$, $\frac{1}{200}$, $\frac{1}{250}$ und $\frac{1}{300}$ Sekunde, je nach Größe des Verschlusses. Bei kleineren reicht die... bis $\frac{1}{300}$ Sekunde, bei größeren ist sie entsprechend geringer.

Ihagee Yearbook 1927

49

Lens construction is revealed in cross sections of the lenses used, and the text comments thus:

"The optical equipment of our cameras is chosen in the most careful way. In accordance with the desires of the customers we are equipping our cameras both with an achromatic lens and periscopic double objectives and with large aperture anastigmats. The aplanats which were formerly frequently used have entirely been replaced by the anastigmats having three lenses, since the efficiency and the speed of the anastigmats are considerably greater. It is a matter of course that one may not claim the same efficiency from the three-lens anastigmat as from the anastigmat consisting of four lenses. The three lens anastigmats cannot be corrected to the same extent as the four-lensed, and this is the advantage of the Veraplans and the Tessars. Any of our objectives represents in its sphere of price the best that can be offered.



Ihagee Yearbook 1927

Lenses illustrated were: Achromatisches (2-lenses in one group) f.11; Periscopisches Doppelobjektiv f.11 (2-lenses); Triplex or Trioplan-Anastigmat 3-lenses, at apertures ranging from f.6.6 through to f.3.5; (often described as Ihagee-Anastigmat); the 4-lens symmetrical Meyer Veraplan anastigmat at f.6.3 or f.4.5; the 3-glass Zeiss Triotar-anastigmat at f.6.3 and the ubiquitous Zeiss Tessar (4-lenses in three groups) at f.6.3 and f.4.5. For the time being, this represented the full range of lenses then being used by Ihagee.

However, it is believed that matters were not always thus! Stories abound that when stocks of a particular lens were running out, and could not be replaced in an acceptable time, alternatives were sought. I have in my collection an Ultrix 1460 (6 x 9cm.) fitted with a non listed lens - a Rodenstock-Trinar f.6.3, 10.5cm. Contrary to what is said above about shutter names, this camera has a basic shutter, as illustrated in the year book, but additionally it carries the name Vero. When such anomalies arise, the first consideration is whether the lens is a retrofit. In a fairly basic camera like this, would the cost of making alterations be worth the expense? Who knows?

The remarkable difference between the earlier catalogues and this first yearbook is that every model of every camera now seems to have its own page. Thus Ihagee-Roll-Paff No. 50, Ihagee-Roll-Paff No.60, and Ihagee-Roll-Paff No.70 each have their own page, as do Ihagee-Plan-Paff-Reflex No 3 and 4, 7 and 9 and Roll-Paff Reflex 20 and 21, followed by Luxus-Roll-Paff-Reflex No.22.

Now we move into the realm of the newly numbered models, and start with Photoknips 100, followed by Photoknips 200, and Mikrobie 500, and Derby 310 are next, with Viktor 510, Venus 610 and Patent-Duplex 710, Luxus-

Duplex 810 and Tropen-Neugold 910 – all 6.5 x 9cm. plate cameras, and appearing in an improving numeric sequence.

Moving up to the next size, we go back to Derby 320, Ama 420, Viktor 520, Patent-Duplex 720, Luxus-Duplex 820, and Tropen-Neugold 920.

We are following basic model numbers, and then repeating them for the next size up. So we find next 530, 730, 830 and 930. Not all models were made in the 13 x 18 cm. format, apart from 740 and 840, which follow. Fairly logically, and following the same principle, Zweiverschluss-Duplex 1010 is next, followed by 1020.

Patent Folding Reflex 1110 is the next listed, followed by the next size up, 1120. The cameras have been appearing on two pages each since 740, but revert to one page for accessory lenses for the PFR, whereby tele lenses are available from Meyer and Zeiss, as is an extender, fitting between camera and lens, increasing focal length.

Going up the model numbers, Ultrix-Automat 1250 comes next, followed by Ultrix-Simplex 1360, Ultrix 1460 and Ultrix-Duplex 1560. An Ultrix-Simplex 1370 ends the (current) Ultrix sequence.

The pair of Stereo cameras follow – 1690 and 1715. Back to two pages for the Corona models, but here they all appear in one table (just to break the sequence!). 2030, 2035, 2040 and 2045.

Enlargers are dealt with in model sequence, as 5000, 5010, 5020, 5030, 5040, followed by 5140 and 5145, and the 5300s and 5400s

Thus the individual camera model – eg. Patent-Duplex – appears four times because it was available in four sizes, 710, 720, 730 and 740. It is not surprising that this 1927/28 yearbook, including another eight pages of accessories, has 80 pages to read!

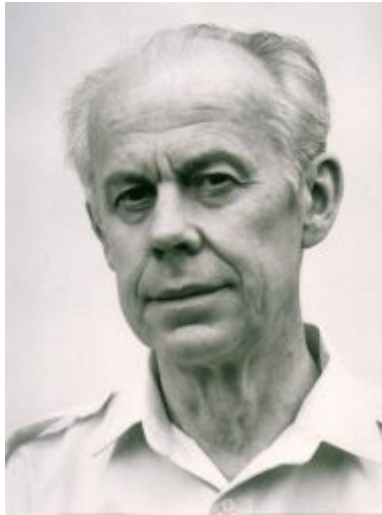
A large proportion of camera collectors augment their collections with literature that is relevant to the cameras they collect. Manufacturer's catalogues, in particular, were well produced and illustrated, some using colour – eg. for decorative borders. They can be a wonderful source of information and are thus much desired, to the extent that some have been reprinted, perhaps 50 years since publication – particularly those from Zeiss-Ikon or Leitz. This has not happened in the case of Ihagee, and original catalogues are extremely rare and the price asked for them can reflect this. After all, some can be over 90 years old! As a result of scarcity, photocopies abound, and the quality of many is unsatisfactory, for they can be copies of copies, and the image degrades each time the item is copied. But we carry on with our research, and very occasionally get excited when an original appears, or even a first generation photocopy!

Werner Wurst joins Ihagee

In April 1928 Werner Wurst (1912-1986), the author of the world famous Exakta books and other technical titles, became a business trainee at Ihagee. Peter Heimbach tells (ET 33) how Wurst found trading to be less than an ideal career. He had an asthmatic condition, and there seemed to be no immediate alternatives open to him at that time. This chronic illness remained an impediment to him throughout his life.

During the period of training he became associated with Ihagee's advertising department, owing to his abilities in both the literary and graphic design fields. After finishing his apprenticeship in 1931 he had to place himself on a waiting list for a permanent job, due to the difficult economic situation. He made the best use of the wait, however, and with Steenbergen's agreement, he

attended a course at the German Photographic Trade School in Dresden, then under the direction of Professor Dr. August Klughardt. This was followed by a course at the National Trade School in Berlin. He was re-employed by Ihagee in 1932, and all printed matter about Ihagee products is believed to have been written by him from this time on. In the mid thirties he was appointed Advertising Director. In 1937 he became "Prokurist" with specific powers to act on behalf of the Company. (The dictionary translates Prokurist as Attorney, not in the American legal sense as a lawyer, but one "having the power of Attorney" – i.e. having the power to act on behalf of.....).



Werner Wurst in later life

Exakta Circle Archive

CHAPTER FIVE 1929-1932

Years of growth.

In 1929 Steenbergen was appointed Honorary Dutch Consul in Dresden. The tiny but prestigious offices were on the ground floor of the Ihagee factory, and added distinction to the Company's reputation. Steenbergen now adopted the title of 'Herr Konsul', but maintained a simple, modest life style. He was probably the only manufacturer in Dresden, according to Hummel, who never rode in an official car! His journeys to and from work were usually made on a typical Dutch bicycle, with a fully enclosed chain. Occasionally, he might indulge himself in a unique DKW three-wheeler as company transport.

This consular status led to a Royal Visit in 1930, when Prince Hendrik of Holland, husband of Queen Wilhelmina, visited both the Consulate and the factory. The Prince was presented with a camera as a gift for his daughter, Princess Juliana. What follows may be a total coincidence, but both John Richardson and the author were offered an Auto Ultrix camera, (finished in brown leather, and embossed with the name Ihagee in gold leaf), at camera fairs in the early 1990s. It was alleged that this special camera was originally presented by Johan Steenbergen to a prominent person. We both asked for details of its provenance which, it was claimed, was available. Alas, nothing was forthcoming. We were told only that there was an elderly lady somewhere in England who had disposed of the camera, who could verify the story, and who apparently knew Johan Steenbergen well. Who, we wondered, was the original recipient of that camera? After all, the Dutch Royal Family did spend part of the Second World War in England.....!

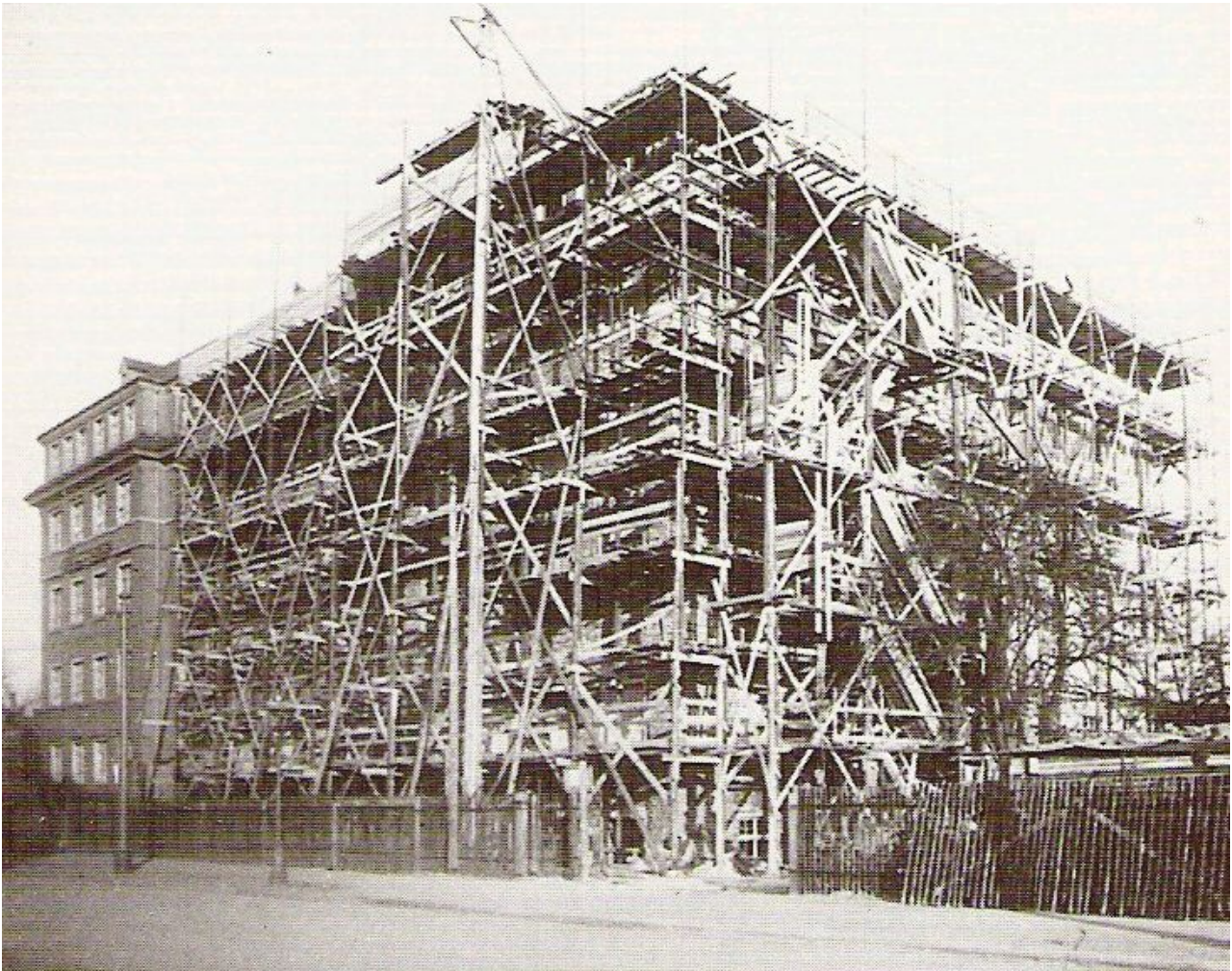
The production of such a comprehensive yearbook for 1927/28 must have been quite beneficial to Ihagee, and the next one to be produced appeared in May 1929, intended to cover the period until May 1930.

This comprised 104 pages, mainly because several new models appeared, and as before, there was a page for each size of each camera model. As with the first Yearbook, the text was in German, and the page size remained the same.

Whereas the earlier Yearbook showed the familiar illustration of the Schandauer Straße building, which was repeated, the facing page contained a picture taken from the south-west corner of Bergmannstraße and Glashütter Straße, which showed the building works in progress for the second stage of the factory.

Although the extension is shrouded in scaffolding, it is possible to see that the rear wing, connected to the original building by a recessed section, is of similar proportions to the front wing. and also that the whole factory did not reach all the way back to the Glashütter Straße boundary, leaving a yard area. The only copy of this picture currently available is of poor quality, but does illustrate the position.

Appearing in advertisements at the time, the picture reproduced on the next page was entitled "Wir Bauen" – "we are building":



Wir Bauen

Ihagee Yearbook 1929/30

The camera pages are interspersed with reproductions of photographs, at various sizes, relating to camera sizes. They do not reveal, however, which cameras were used to take them!

Most of the instruments covered in this yearbook are the same as in the previous one, although illustrations show that an increasing number of them are now equipped with folding wire frame viewfinders.

A word here about wire frame viewfinders. They are hinged on either the top or the side of the lens standard/mount, and observed through a metal eye piece which can fold flat to the body when not in use. The rectangle of nickel plated wire is never truly rectangular or flat. There is remarkable ingenuity in designing the frame, in three dimensions, which folds over the lens mount when not in use, fitting snugly around the various shapes, and yet not getting in the way when the camera closes.

As the years have gone by, many models were now being made with metal bodies instead of wood, although still covered in leather. The previous chapter refers to the large capacity presses used for shaping the metal bodies from sheet metal.

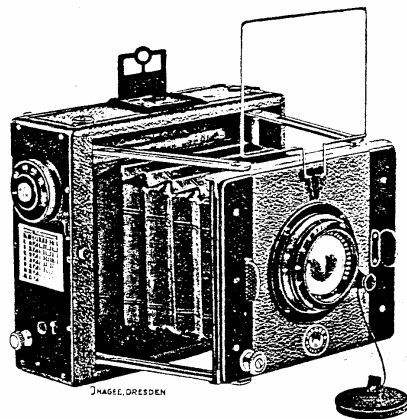
New additions include a 1030 version of Zweiverschluss (ie. 10 x 15cm), which also offers the possibility of replacing the lens panel with one fitted with two lenses/shutters for stereo work, or single lenses of differing focal length. Presumably for those who did not wish to venture into the world of interchangeability, Zweiverschluss-Stereo 2430 now appears, which is a stereo camera in its own right. Curiously, however, this stereo lens panel is

interchangeable – for one permitting panoramic pictures to be taken! The lenses on offer seem to revert this model to a 1030. Complicated or what!

Sport-Kamera 1820 is totally new to Ihagee, yet seems familiar. It is the Ihagee version of the ubiquitous press type of plate camera, and is equipped with a focal plane shutter, and a wire frame viewfinder. The lens panel has a rise/fall facility, and the standard range of lenses has an additional option – the Meyer Plasmot f.4.5:

Ihagee=»Sport=Kamera« Nr. 1820

Für Platten und Filmpacks 9 × 12 cm
Die beste Kamera für Sport- und Pressephotographie!

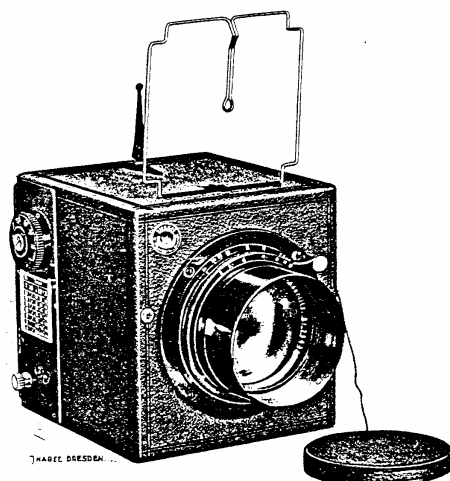


Ihagee Yearbook 1929/30

Ihagee-Nachtkamera 2500 and 2510 now appears. Usable with plates or film packs, this is basically a box camera with a focal plane shutter and a wide aperture lens. The lens choice was either a Meyer Plasmot f1.5 or f2 in the small model, or the f2 Plasmot in the larger one. A wire frame viewfinder sits on top of the body. The camera was devised for available light photography by night:

Ihagee=Nachtkamera Nr. 2510

Für Platten und Filmpacks 6½ × 9 cm



Ihagee yearbook 1929/30

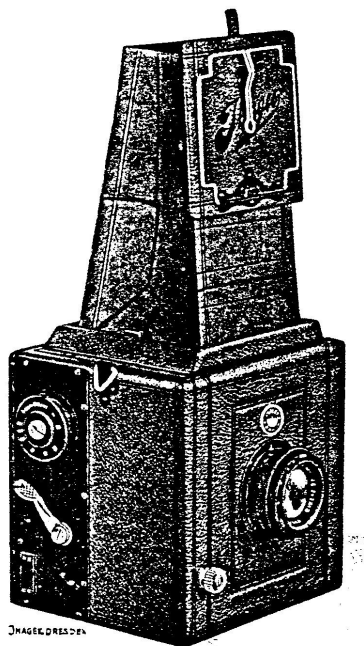
It is questionable whether this camera was ever made. It was superseded by a reflex version using the same numbers in the next yearbook, and Ihagee Historiker Gesellschaft did not list it as a separate model, nor did they record any serial numbers. Perhaps it only existed as a prototype in the Ihagee factory, and

was not produced because that which was to follow it the following year was almost ready.

In the Paff range, the simple box cameras have now disappeared. It was suggested earlier that the first appearance of this box camera may have been, in a sense, "sounding the market" to see if there would have been a demand for it.

The Ultrix range of roll film cameras had a new member when Ultrix mit Plattenruckwand (plate back) 2960 was introduced. This camera was for use with rollfilm 6x9cm (120) but part of the back, carrying the film pressure plate could be removed and replaced by a 6.5x9cm. glass plate holder or a hooded focusing screen.

Another totally new camera appears for the first time – the Serien-Reflex 2110, 2113 and 2120:



Ihagee Yearbook 1929/30

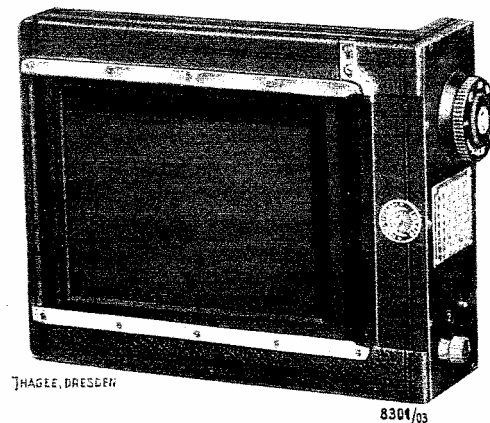
This is a box form reflex camera, with the Ihagee focal plane shutter, and a focusing hood atop the box, similar to that used on the Patent Klapp Reflex. Indeed, the Serien is, if anything, an economy version of the PFR. However, the lens range has also the Meyer Plasmat f4.5. The wire frame finder fitted to the hood of the PFR appears here also. 2110 and 2120 have revolving backs, which enable the use of landscape or portrait format; 2113 having a square 9 x 9cm image, does not need this facility. If the PFR was designed for a degree of compactness, the Serien is a bulky lump of a camera!

The range of Patent Klapp Reflex cameras increases. 1110 and 1120 are now joined by 1910, a square format camera with a revolving back for landscape or portrait pictures, and a 9 x 9cm top focusing screen, so that either format can be viewed without altering the position of the camera. 2610, is a similar square format model with a revolving back, but to aid compactness, the focusing screen is smaller, covering only the landscape picture. Users wanting to see both formats on the top screen were recommended to use 1910. 1913 is a wholly quadratic camera – both plate size and top focusing screen are 9 x 9cm. 1920, moving up the scale of picture size, is similar to 1910, but with a "landscape only" screen. 1130 is getting rather large at 10 x 15cm., but the makers still extolled its suitability for sports and press purposes, as well as portraiture.

All the PFR cameras were now available with the Meyer Plasmat lens at f4.5, as well as the Veraplans and Tessars as previously. A set of Telephoto lenses

became available for the PFR cameras. Tele-Megors and Tele-Tessars were provided, but somewhat strangely, the Yearbook does not specify the focal lengths of these lenses. An additional accessory was made by Meyer, which fitted between lens and camera, extending the focal length of the original lens - an accessory which major manufacturers provided for many cameras throughout the later years of the 20th century.

Now that there were cameras like Zwieverschluss, owners of conventional plate cameras might possibly feel disadvantaged. An interesting and very useful accessory became available, in three sizes, which was an independent Ihagee focal plane shutter to be fitted between camera and plate holder.



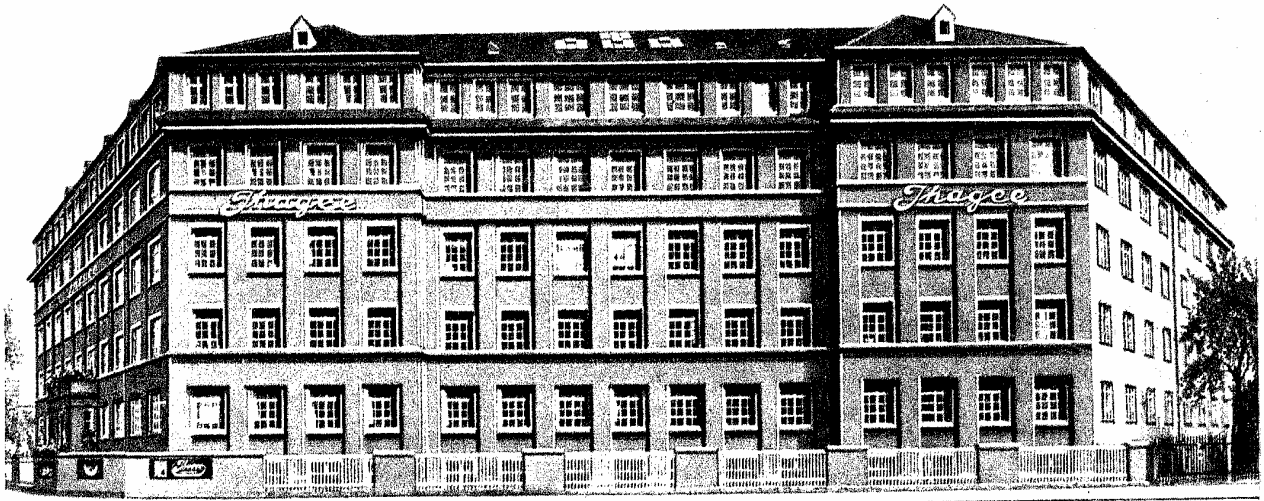
Ihagee Schlitzverschluss-Ansätze – note the Ihagee badge

Ihagee Yearbook 1929/30

In November 1929 the new building had been completed. With frontages to Schandauer Straße (where the main entrance was retained), Bergmanstraße, and the rear road, Glashütter Straße, the following illustration shows a strange double-perspective view of the Bergmanstraße elevation, with oblique views of the main front and the rear elevations. Schandauer Straße is on the left, and Glashütter Straße is on the right. Of course, such a view could never be achieved in real life, as the building was rectangular!

It does confirm, however, that the main and flank frontages were quite ornate, whilst the rear elevation, as befits the service side of the building, was much plainer. The 1929/30 Yearbook showed building works in progress, shrouded in scaffolding. It confirms that the building did not reach all the way back to Glashütter Straße. There was a yard area in this vicinity. The 1930/31 edition used the distorted but now familiar illustration of the whole building. But even this is spurious, because it is believed that the famous picture has been stretched, so far as the central, recessed, section is concerned, with possibly two vertical rows of windows being added to make the building, as illustrated, seem bigger than it really was. In fact, another version of this picture, owned by Sir Kenneth Corfield, confirms this. Advertising at the time was prone to a little artistic licence, and it could well be that Werner Wurst had a hand in this.

The building had, it was claimed, a capacity for 1,000 workspaces. But the world economy took its toll, and work was short. Redundancies resulted, and the workforce fell to about 300.



IHAGEE-KAMERAWERK, STEENBERGEN & CO., DRESDEN-STRIESEN

Ihagee Yearbook 1930/31



Exakta Circle Archive

The above extract from an aerial photograph of July 1944 shows, albeit not very clearly, that the building did, in fact, extend rather less than 2/3rds of the plot depth from Schandauer Straße, which is arrowed. Glashütter Straße is below it. Bergmanstraße runs vertically across them. The Ihagee building is at the centre of the picture. The round feature just visible in the internal angle of the building is the sawdust cyclone. The rear wing appears to be slightly shorter than the front one.

1930 – Steenbergen marries.

In 1930, Steenbergen was living modestly in a rented apartment. Then he met Elizabeth Louisa Nussbaum, and they married in 1931. The couple moved into a spacious house on Justinenstraße, in Blasewitz, near the Blaues Wunder bridge. It was to be tastefully furnished by the new Mrs. Steenbergen. It is still standing today, having avoided the events of 1945.

A milestone in Ihagee history occurred in 1930 when Karl Nüchterlein presented new ideas to Steenbergen. In particular, he envisaged a miniature single-lens reflex camera which could re-establish the name of Ihagee. The plan

was approved, and detailed research and design began. Nüchterlein set up a project team for this venture, because his earlier principles of "design, build and develop" by himself, could no longer apply to a venture of this potential. His team comprised Otto Helfricht, an Ihagee man since 1925; Rudolph Groschupf (1927); Willy Teubner (1928) and Hans Loose. Together, they were to produce the first models of the Exakta 4 x 6.5cm in October 1932, a camera using 127 (VP) size rollfilm.

There are at least two versions of the story about the genesis of the Exakta. One suggests that Steenbergen, as the sales expert, had studied the marketing opportunities for a new groundbreaking camera, and briefed Karl Nüchterlein accordingly. The other version involves the Dresden biologist, Dr. Werner Faasch. Dr. Faasch used an Ihagee plate camera for taking pictures of insects. The process involved in using a plate camera took so long (focusing on the ground glass, setting the exposure, replacing the ground glass with a plate holder etc.) that at the moment of exposure, the insect had usually disappeared! He outlined his problem to Steenbergen, and asked for a new type of camera to make the process much quicker. Whichever way it happened, there is no doubt that Nüchterlein and his team created the Exakta.

The end of 1930 brought some relief to Steenbergen's business problems with production recovering to previous levels. Another independent Ihagee company was registered in 1930 in Italy.

1931

An even larger Yearbook was issued for 1930/31. It provided 160 pages of cameras, accessories and data. There was a touch of colour on each page, with a green vertical bar on the right margin, and the name "Ihagee Dresden" appeared in green at the foot of each page. The layout was similar to the previous edition. This yearbook is intended for international circulation – it contains texts in German, English, French and Spanish.

"Through quality to success!" was the motto when the first works was founded in Marcolinistraße in 1912, says the introduction, and it has been faithfully observed since then. It goes on to say:

".....our chief aim is quality, the price is a secondary consideration. In the camera industry, a tendency towards standard prices is noticeable of late. There we are not able to follow suit, since anyone limiting his prices will necessarily have to impose limits on himself in point of the quality. And that we decline to do! The quality of Ihagee productions must at all times remain the highest attainable. Even if the employment of cheaper raw materials should not be outwardly apparent, we should be doing our clients an ill service, if we, for the sake of saving a few marks, used materials less suitable, in our opinion, for the manufacture of high quality goods. We should be acting like an architect giving a house a freestone façade and economizing in the foundations. The name of Ihagee is to be the epitome of the highest excellence and to retain that distinction! There are Ihagee cameras in every range of price, equipped for the purpose for which they are to be employed, but even for the lowest priced models the best materials are used. Thus, for instance, in all cameras with metal bodies and baseboards, these are exclusively made of aluminium. Sheet iron is barred by us on account of the danger of rusting. The bellows of every one of the rollfilm-, folding- and reflex-cameras are made of leather. That is why

Ihagee cameras have an unlimited life. For the amateur photographer it means a single, non-recurring expense, for an Ihagee camera lasts a lifetime. The construction and value of Ihagee cameras guarantee success in photography. The judicious amateur will, therefore, give the preference to them, even if the price such a high-quality apparatus should be a trifle beyond that of nameless manufacturers.

The steady increase in our turnover proves that our clients know how to appreciate our endeavours. We, therefore, take this opportunity for thanking the great number of our business friends for the goodwill shown to us which has enabled us to achieve striking results and to realize a six-fold increase in our turnover within the space of four years. This notable advance in our turnover has, on the other hand, enabled us to offer advantages in the prices which, on comparison with other makes, will prove that we can defy competition not alone in quality, but likewise in price.

Owing to the increased demand the available space in our chief works at 24 Schandauer Straße and in our branch establishment at 79 Augsburger Straße, proved insufficient in the past year so that a large extension-building providing room for 500 additional workers was erected. This will place us in a position to do justice to the desires of our valued customers in every respect."

Editorial-Ihagee Yearbook 1930/31

The description of the shutters used in Ihagee cameras has by now been refined thus:

"Objective shutters of the Ihagee cameras – in the following we give a short description of the most usual shutters used for our cameras: Shutters for time exposures and snapshots 1/25th to 1/100th second series V. The(se)... shutters are automatic shutters, i.e., they are always ready for use and need no setting. The exposure is made by pressing the finger-release or, if preferred, the wire-release which can be screwed into the small socket. These automatic shutters are arranged for bulb and time exposures and for snapshots of 1/25th, 1/50th and 1/100th second.

Shutters for time exposures and snapshots 1/25th to 1/100th second series V. The above shown shutters are automatic shutters, i.e., they are always ready for use and need no setting. The exposure is made by pressing the finger-release or, if preferred, the wire-release which can be screwed into the small socket. These automatic shutters are arranged for bulb and time exposures and for snapshots of 1/25th, 1/50th and 1/100th second.

Ibsor-shutter series I. The Ibsor-shutter is likewise an automatic shutter, i.e., it is always ready for use and needs no setting. The exposure is made by pressing the finger-release or, if preferred, the wire-release which can be screwed into the small socket. The Ibsor shutter is arranged for bulb and time exposures and snapshots of 1, 1/2, 1/5th, 1/10th, 1/25th, 1/50th, 1/100th and 1/125th second as per size of the shutter. With smaller shutters the speed reaches as far as 1/125th second, but with larger ones as far as 1/100th second.

Compur-shutter series C. The Compur-shutter is a most ingeniously constructed clockwork. The exposure is made by pressing the finger-

release or, if preferred, the wire-release which can be screwed into the small socket. The Compur-shutter is arranged for bulb and time exposures and snapshots of 1, ½, 1/5th, 1/10th, 1/25th, 1/50th, 1/100th, 1/200th, 1/250th and 1/300th second as per size of the shutter. With smaller shutters the speed reaches as far as 1/300th second, with larger ones it is correspondently (sic) less.

The Compur shutter series CC. The Compur Shutter of series CC is similar in execution and effect to the Compur Shutter of series C, only that the former is provided with a built-in automatic release, which, when the tension lever is in a corresponding position, releases the shutter after about 12 seconds and makes an exposure for the time set. After the release delaying device has run down the shutter is again available for ordinary exposures. The various time exposure and instantaneous exposure speeds correspond to those of Compur C. The self acting exposure is available for all snapshot speeds with the exception of the maximum speeds. (1/250th – 1/200th sec.)."

Ihagee Yearbook 1930/31

Once again, the contents of this yearbook remain the same – the bulk of the cameras shown have not changed to any material extent over the last two or three years. The Ultrix range remains the same, as do the two Photoknips models. Mikrobie is still wooden bodied, whilst Derby at 310 and 320 and Ama at 420 are metal bodied, as are Venus, Viktor, Patent Duplex, Luxus Duplex, in all sizes.

There are two new additions in the range of plate cameras. Auto-Photoklapp 2220, (9 x 12cm) whilst conventional in shape, closed and open, has moved away from the usual folding bed supporting focusing rails, lens standard



Auto-Photoklapp 2220; body no. 278428

(PML)

and infinity catch etc. The distinctive side stays have gone. The lens standard is supported on spring-loaded crossed struts, such that the camera, on opening, is self-erecting. The nickel plated lens standard carries a large helical focusing mount, operated by a lever beneath lens and shutter, both of which move back and forth when focusing is carried out. The description in the yearbook claims that on opening out the camera, the lens is automatically sharply focused for

infinity. This is only true to the extent that the camera will not close until the lens assembly is manually returned to the infinity position! So of course it is focused on infinity when it is next opened! The full range of four shutters and lens options are listed, with the better lenses generally being available with the better shutters i.e the Ihagee-Anastigmats at f6.8 and f6.3 and the Veraplan f6.8 are paired with the series V shutters or the Ibsor, whilst the f4.5 versions and the Tessars come with the Compur shutters. A Brilliant viewfinder is mounted in the usual position to the side on the lens standard, and a wire frame finder is also supplied, although this is missing on my specimen. I have never seen one of these in Britain; I bought mine in Prague.

A curious plate camera is the Photoklapp-Duplex 2320. In all respects, this appears to be a normal 9 x 12cm Patent Duplex, with Tessar lenses in either Ibsor or Compur shutters. The curiosity is that there is a missing item - the patent infinity catch release! One cannot help wondering why such a camera, complete with its own model number, was thought to be necessary in any way. On occasions, the ways of Ihagee are rather strange! This model did not appear the following year. But another curiosity, not mentioned in any yearbook or catalogue, is a 6 x 9cm version of this camera, which I have in my collection! It could be allocated the number 2310 in the Ihagee system - but has never been listed as such.

The Sport-Kamera range is extended, and now this press type camera is available in 1810, 1820 and 1830.

In the last yearbook, Ihagee had introduced the Nachtkamera 2500 and 2510, box type cameras with focal plane shutter and wide aperture Plasmal lenses. These two cameras are now upgraded, using the same model numbers, into full reflex cameras: Nachtreflex 2500 and 2510. The distinctive style of reflex hood used on the PFR and Serien appears again on Nachtreflex, combining a similar wire frame viewfinder to be used when the hood is closed.

In either model, these are extremely rare cameras.



Ihagee Nachtreflex 2500

Ihagee Yearbook 1930/31

I have mentioned previously that Ihagee have used the back page of a catalogue to introduce a new model. This yearbook is no exception and page 160 introduces the Auto-Ultrix 2860 (the model illustrated opposite is body no. 318462) :



1930 version (PML)

This 6 x 9cm rollfilm camera is unlike any previous models in the Ultrix family, apart from its bellows, because it uses a similar principle, but different design, to the Auto-Photoklapp, in erecting the lens standard automatically as the camera is opened. The same comment about being automatically focused on infinity when opened applies here also – it will not close unless the focusing lever has been set on infinity. Focusing utilizes a helical thread, and the whole shutter/lens assembly moves. For the first time, the V version of the shutter is dropped, and a similar shutter called Zenith is supplied instead. Ihagee Anastigmats f6.3 and f4.5 are available, together with Zeiss Tessar f4.5, in Zenith, Ibsor or both levels of Compur shutters. The body is made of aluminium, leather covered, and uses the Brilliant type of view finder. This camera is to undergo several levels of development in the years to come.

So much for the big yearbooks. From 1932 until 1939 a smaller catalogue, in varying formats, is to appear.

1932

The 1932 edition (June 1932, export) has 20 pages 15 x 23cm. in portrait format. A more compact presentation now replaces the yearbooks. Although the latter were of undoubted quality, it was not always easy to find what you wanted. Now it became much easier, and a change in advertising control is apparent. In the main, there was little change to the range of cameras, subject to what follows here.

The page describing the lenses and shutters in use was retained. Shutter model V was probably the Zenith, but a new category SP was added, which was similar, but had a delayed action facility. Both had instantaneous speeds from 1/25th to 1/100th sec. Model I was the Ibsor, giving speeds from 1 sec. to 1/125th (or 1/100th in the largest version). C is the Compur, with speeds up to 1/250th sec or 1/300th sec. in certain cases. SC was the Compur with the delayed action facility.

The lens diagrams were as before, and some lenses to be found later in the catalogue were not yet shown.

Ihagee were now having to face the increasing popularity of miniature cameras using 35mm film. In 1925 Ernst Leitz had introduced the Leica, a wonderfully compact camera, at the Leipzig Spring Fair.

Zeiss Ikon introduced the Contax at the 1932 Fair. It was brilliantly miniaturised and with a new metal roller-blind shutter. Richard Hummel wrote, many years later, (and rather poetically):

"These innovations mobilized some stylish ideas in Nüchterlein's head. While he was concentrating on the development of the VP Exakta, he ruminated. Out of the whirling variety of idiosyncrasies and patent applications, the Exakta later became the basis for a new miniature mirror-reflex camera"

(Hummel 1994)

At the same Spring Fair the AGFA factory in Wolfen showed the first light-tight film cartridge for 35mm perforated film, the basis of the modern cassette.

Ihagee miniatures were old fashioned by comparison – the little plate camera Mikrobie and the two Photoknips, again plate (or film pack) cameras. Ultrix Automat 1250 had already disappeared by 1928. There was nothing for use with 35mm film.

Ihagee's reaction to all this had already started in 1931. Two cameras were introduced after the 1932 catalogue had been prepared. They used 127 (VP) size rollfilm, small enough in itself to qualify for the description miniature. The Klein-Ultrix 1350 and 1450 were compact, aluminium bodied cameras (covered in leather) giving, respectively, 16 exposures at 3 x 4cm, or 8 exposures at 4 x 6.5cm. (Note the anomaly in the numbering system – both were given the suffix – 50). There was no bellows or lens standard; the shutter/lens was carried on the front of a tubular mount with a large external helical thread, which provided the focusing movement. This was fitted to the camera body via a nickel plated ring, which controlled the focusing movement and provided a focusing scale. The ring was rotated first to bring the lens out to the infinity position, and then, by releasing a small lever, rotated further for closer focusing. A folding optical viewfinder is fitted to the body. Nestling under the shutter housing is a nifty little arc-shaped lever, which, when folded out, offers the opportunity to stand the camera on a flat surface for a delayed-action exposure. The better Compur shutter by this stage was provided with this facility.

A full range of lens/shutter options were on offer, ranging from Ihagee Anastigmats at f6.3; f4.5; and f3.5; Xenars at f4.5; f3.5 and f2.9; a Xenon at f2; and Tessars at f4.5; f3.5; f2.8 and a Biotar at f2.

Although the camera is described as being aluminium bodied, this is probably the first example of an Ihagee camera having a die-cast (or pressure cast) body. Ihagee do not appear to have had die-casting facilities in their factory, and it is thought that the body component may well have been provided by a company called Druckguss at nearby Heidenau. They will be referred to later.

The name given to the Klein-Ultrix was corrupted when it was listed in other countries – Weeny Ultrix and Cameo Ultrix come to mind, and Ihagee responded by holding a competition to give this camera a new name. A leaflet (ref: 525) was issued in June 1931 inviting suggestions; a range of 50 Ihagee cameras was offered as prizes, the top one being a 9 x 12cm. Patent Klapp Reflex. The winning name was Parvola, and thus it appeared in all later catalogues.



(1) Klein Ultrix (Parvola) 1450 with f3.5 Tessar in Compur (C) on the left, and (2) Westentaschen-Auto-Ultrix 2850 with f4.5 Ihagee Anastigmat in Pronto (SP). Body nos. (1) 1067147 and (2) 439102. (PML)

Additional to the Klein-Ultrix was the Westentaschen-Auto-Ultrix (Vest-pocket Auto-Ultrix) 2850 and 4850. These two models were similar in body size to the Klein-Ultrix, taking 127 size roll film for eight exposures 4 x 6.5cm. Here the resemblance ends, for this is a scaled down version of the larger Auto-Ultrix 2860 described previously. 2850 had similar helical focusing, and lenses from Ihagee Anastigmat f4.5 and f3.5; Xenar f4.5 and f3.5, and Tessar f3.5. in SP or C shutters. The viewfinder is of a folding optical type. Rather ingeniously, the action of opening the camera trips a catch to open the viewfinder simultaneously. The cheaper economy version 4850 is focused by turning the front element of its f6.3 Ihagee Anastigmat, set in a V shutter. It has a non-optical frame viewfinder fitted on the body. The self erecting components are most precise in their action, opening and closing the camera, tilting and fitting the lens mount and bellows into the body aperture. As the camera gets older and the joints get worn, the movement is not quite so precise, and components do tend to rub together somewhat.

Auto- Ultrix was also undergoing some development. From the basic model 2860, introduced at the back of the 1930/31 yearbook, an Auto - Ultrix mit Plattenrückwand (plate back) 3860 appeared. As with the Ultrix 2960, this camera was for use with rollfilm 6 x 9cm. (120), but part of the back, carrying the film pressure plate, could be removed and replaced by a 6.5 x 9cm. glass plate holder or a hooded focusing screen.

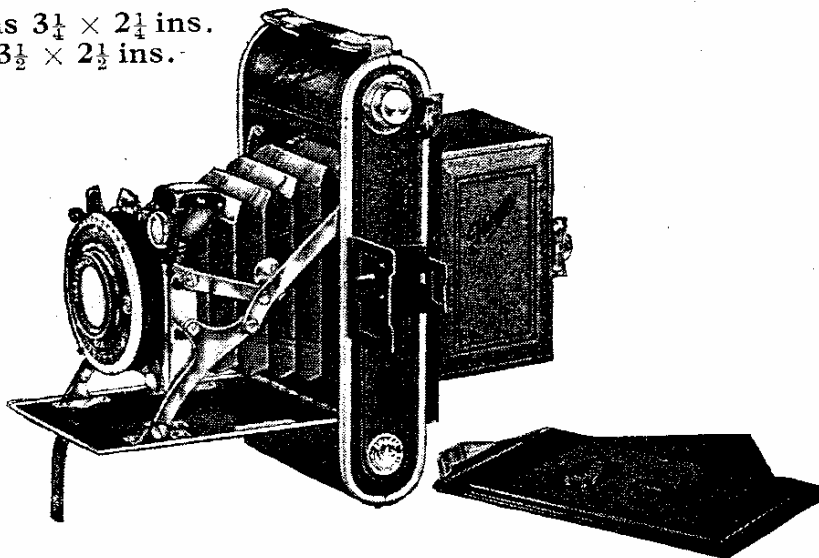
Auto. Ultrix No. 3860 – Plate Back

For Roll Films $3\frac{1}{4} \times 2\frac{1}{4}$ ins.
or Plates $3\frac{1}{2} \times 2\frac{1}{2}$ ins.

This camera is similar to No. 2860 described above but is designed to take either roll films or plates.

It is supplied with removable panel when using plates.

Complete with 3 single metal slides and focussing screen, and cable release.



| No. | | £ | s. | d. |
|----------|--|----|----|----|
| 3860 KV | Ihagee Anastigmat F/6.3, Zenith 3-speed Shutter | 5 | 10 | 0 |
| 3860 MV | Ihagee Anastigmat F/4.5, Zenith 3-speed Shutter | 6 | 6 | 0 |
| 3860 MI | Ihagee Anastigmat F/4.5, Ibsor 7-speed Shutter | 7 | 12 | 6 |
| 3860 ZSC | Zeiss Tessar Anastigmat F/4.5 in Compur Shutter, with delayed action release | 11 | 7 | 6 |
| — | Leather Case, velvet lined, with lock and key | 0 | 12 | 6 |

Ihagee catalogue 1932

At the back of the catalogue – surprise! – was another innovation. Ihagee introduced a 16mm cine film projector. They had announced in 1929 that they would produce a 16mm projector under licence from the Bolex Corporation of Geneva. The impending production was announced at the Leipzig Spring Fair of 1931, and manufacture started soon thereafter.

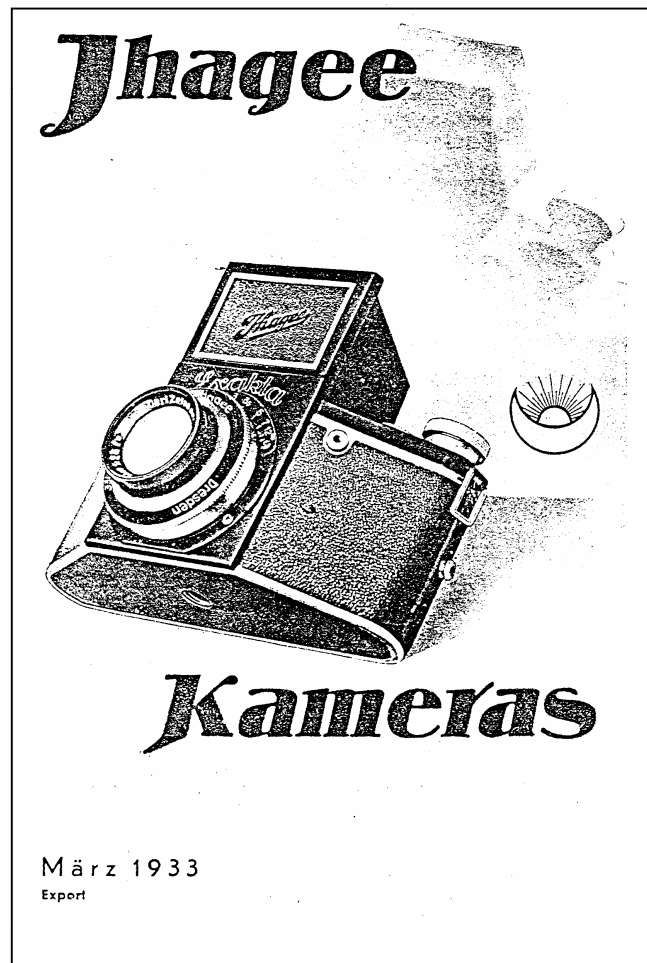
What brought this about is not known. There was never a matching cine camera. Listed at the time at 600 to 660RM, this was one of the most expensive items in the catalogue, and was matched in cost only by the f2 version of the larger Nachtreflex, and the Plasmat version of the 9 x 12 PFR. An improved model was shown at the 1932 Fair, but it was not profitable, and it was withdrawn in 1933.

CHAPTER SIX 1933-38

The birth of a legendary camera.

1933 – EXAKTA!

A very similar catalogue was issued in March 1933. The cover illustration was of the new Exakta, and the introduction paved the way for what was to come, by describing the various forms of miniature photography currently available. Mainly, however, the contents were similar to the previous year, but for the great announcement.



Ihagee Catalogue 1933-cover

On page three there appeared, for the first time, the Exakta - No. 8150, a VP sized reflex camera, and

"the first single lens reflex of an entirely new compact form which is so familiar in today's SLR cameras"

(Aguila and Rouah, 1987).

It was the precursor of great things in the future, and which would raise the company to the forefront of the German Camera Industry. Nevertheless, at this stage in its life, the Exakta merited only one page in this catalogue! The camera was presented to the world at the 1933 Leipzig Spring Fair, and despite some scepticism, particularly from the supporters of other makes of miniature cameras, it was an instant success.

Again quoting Aguila and Rouah:

“its trapezoidal shape provided practical and easy handling. Its small size still causes surprise; it had the dimensions and weight of the 35mm cameras of the sixties. It is indeed the ancestor of the modern single lens reflex: nowadays 50 years later, it still does not seem too old fashioned”

(Aguila and Rouah, 1987)

The trapezoidal body, die cast in a light alloy, covered with leather, carries a lens on its front, and a focusing screen and hood, film wind and shutter dial on the top, which is black enameled, The body casting measures 15 x 6.5 x 5cm. Whereas the depth of the body in so many cameras was governed by the size of the film rolls – sometimes as little as 25mm.- the added depth of the Exakta is caused by the need to accommodate the reflex mirror. With lens, the depth is 7.5cm when closed, and 9cm. when focused on infinity. Control knobs on the top plate give a height of 7.5cm, and with the hood erected, another 4cm. can be added. It feels quite solid – weighing-in at 750g with lens. Controls and focusing mount are nickel plated.



The first Exakta – model A (A&R v.1 *)

The camera uses 127 or VP roll film, (VP=vest pocket, a name devised by Eastman Kodak) giving eight pictures 4 x 6.5cm and exposure is controlled by a focal plane shutter. Film winding is by knob, which simultaneously winds the shutter, but exposure spacing is not yet automatic, and a red window on the back of the camera provided the control for spacing, as in so many roll film cameras of the era. The shutter has horizontally running self capping cloth blinds, and the speeds provided were 1/25th; 1/50th; 1/100th; 1/200th; 1/300th; 1/600th; and 1/1000th sec., together with B and T. Shutter speed setting is by a dial on top, between the winding knob and the focusing hood. The shutter release is on the front left of the body.

Focusing is provided by a helical threaded tube, about 40mm in diameter, controlled by a focusing ring on the front of the body, surrounding the tube. This is part of the camera body. The available focusing range is from 0.9m to infinity. Lenses, which were not interchangeable at this stage, screw into the outer end of the focusing tube. As with the Klein Ultrix, the lens is wound out to an infinity

*) The Exakta for roll film is called VP (for vest pocket) Exakta, Standard Exakta in German, after the appearance of the 35mm Kine-Exakta in 1936. Version numbers are based on the version number system introduced in the book Exakta Collection by Clément Aguila & Michel Rouah.

stop, and when this is released, wound out further for close-up work. The focusing ring also carries the body number.

The focusing screen shows an image reversed left to right. It is shielded by a folding hood which offers a magnifier (which enlarges only part of the field) and also a panel on the front which, when folded in, leaves an aperture that can be used as a frame finder for e.g. sports events. The back of the panel is polished so that when it is clipped at 45° it acts as a mirror, enabling part of the screen image to be seen at eye level. Of course it is then upside down! The panel is adorned externally by the Ihagee logo embossed into the leather covering.

Lenses available for this early model were all 75mm focal length, and comprised Ihagee Exaktar f3.5, Meyer Primotar f3.5, Schneider Xenar f3.5 or f2.9, and Zeiss Tessar f3.5 or f2.9.

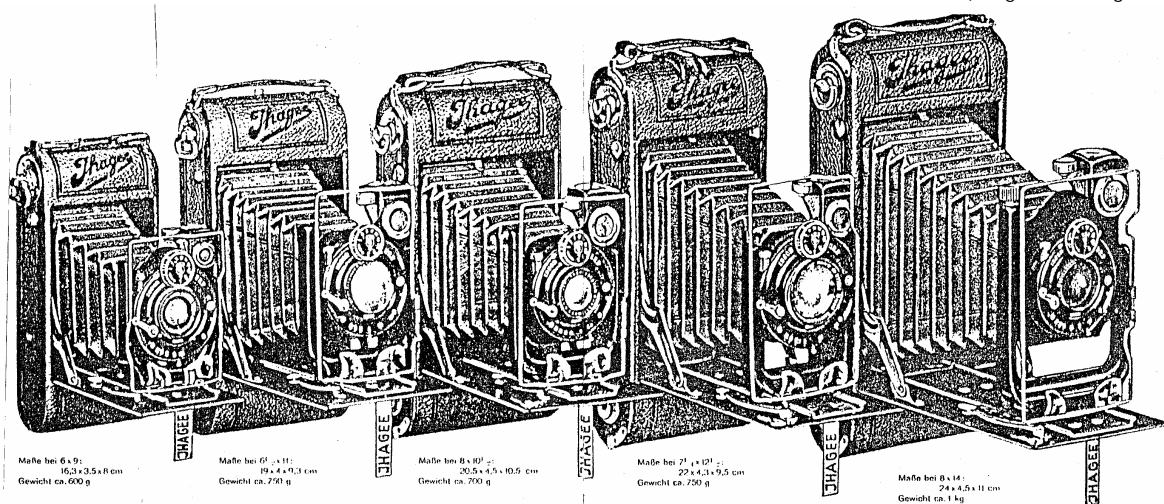
Other changes to the cameras available include an addition to the Parvola 1350 and 1450. Described as the final word in the field of miniature photography in the Ihagee catalogue, 1933, this is a dual format Parvola, no. 1550. which gives not only the choice of the two picture sizes from the earlier models, by the use of an internal baffle, but additionally, a camera back which can accommodate glass plates 4.5 x 6cm., and which naturally, gives a small hooded focusing screen as well. Today's photographer may well think that the use of small glass plates was a strange choice in a newly developing field of miniature cameras, but individual exposures could be processed without waiting for the whole of a 127 film to be finished. This philosophy was to be developed in the next two or three years.

The Paff reflex cameras were finally dropped from the listings.

1934

The next three catalogues, 1934, 1935 and 1936 were very similar, all with the original Exakta on the cover. The format switched to landscape, with pages 15.5 x 23 cm, but the Exakta still occupied only one page. Most of the other Ihagee cameras continued without significant change. The use of the landscape format enabled the publicity people at Ihagee to create another iconic photograph. The roll-film Ultrix had been made for many years in five sizes from 6 x 9cm. (1460) to 8 x 14cm. (1485). Now the whole family was pictured in a row, looking pretty impressive. The picture clearly shows that all have similar features, including the radial lever for focusing, the ubiquitous wire frame finder, and a brilliant finder with spirit level. The largest only has a vernier controlled rise/fall mechanism.

(Ihagee Catalogue 1934)



In 1934 there were three models of the VP Exakta available; all carrying the same catalogue number 8150, with a suffix identifying the variations. Aguila and Rouah gave version numbers to the various Exakta models, which have subsequently come into general use. What is now referred to as model A (A & R v.2) is slightly modified from that first introduced last year (v.1). The pitch of the lens thread is changed from 0.5 to 0.75mm, and a safety mechanism fitted which prevents exposure unless the lens has been wound out to the infinity position. The diameter of the wind-on knob is increased to 26mm.

Model B (v.1) is similar to model A but for the shutter speeds. An escapement mechanism, operated by a knob on the right side of the top plate, gives a range of thirteen slow speeds, engraved in black on the dial, from 1/10th sec. to a full 12 seconds. When the shutter is cocked, it has to be set to T or B. Then the slow speed dial is wound and set to the desired slow speed. If the slow speeds are not required, the knob is not wound, and the principal speed dial is set to whatever the user required.

But that is not all. Additionally, a range of speeds, engraved in red on the slow speed dial, give a delayed action release of about 12 seconds; in this case the range of slow speeds excludes the 12 sec., and is limited to 6sec. However, if the principal dial is set to any speed other than B or T, and the slow speed dial is wound and set to any red speed, then a normal delay is followed by an instantaneous exposure. Even today, this range of possibilities causes lots of misunderstandings, and I am regularly asked for copies of instruction manuals to clarify the correct usage of this shutter.

Complicated though it might be, this truly versatile shutter mechanism is found in use on Exakta cameras, including the 35mm and 6 x 6cm models yet to come, through until the late 1960s.



Exakta Model B (A&R v.1)

What was in 1934 called the Volks-Exakta became the third model. This relatively low priced Exakta has the fast speeds only, the upper one being limited to 1/500th sec. The lens mount is a simple pull-out chromed tube, instead of the helical mount, and focusing is achieved by rotating the front element of the Ihagee-Anastigmat lens (f4.5). It was recorded in the Ihagee catalogues as Volks-

Exakta until 1937, when it became known as the Exakta Junior. A very small number (probably no more than a few dozen) appeared as 'Ihagee' without the name Exakta.

The change in diameter of the lens mount thread was followed by the availability of interchangeable lenses. Models A and B were offered with the same range of lenses as last year, with the addition of an f2 Biotar, and surprisingly, perhaps, f3.5 and f2.9 Cassar lenses which, I seem to recall, were not particularly highly regarded in later years. Additional longer focus lenses were also on offer: Tele-Tessar f6.3, at 12cm focal length, and Tele-Megor f5.5, at 15cm. and an Ihagee-Anastigmat f4.5 at 10.5cm. There was also a wide-angle Weitwinkel-Tessar f8, 5.5cm.

In years to come, many lens manufacturers, both in Germany and abroad, made lenses to fit the Exakta. These are reviewed in some depth by Aguila and Rouah, and other authors, but do not come within the scope of this book.



This 1934 photograph shows the system of overhead shafts driving machinery by belts at 24 Schandauer Straße

Ihagee photograph

The same group in Ihagee led by Karl Nüchterlein, that had been (and still were) so busy in designing and developing the VP Exakta, were desirous of turning their attention to a 35mm "Kine" version, intended to bring the company into full competition with Leitz and Zeiss Ikon. It should be able to employ the new Agfa film cassette for miniature film, have technical features on a level with the existing Exakta and yet have a compact construction comparable with the Contax. The team reminded Nüchterlein, however, that even Zeiss Ikon, who were, after all, the leading camera company in Dresden, had not followed the single lens reflex route. "So much the better for us" muttered Nüchterlein! (Hummel)

Johan Steenbergen supported the concepts set before him, subject to further work on the VP Exakta not being interrupted. Karl Nüchterlein had started preliminary work in the middle of 1932, and evaluated how existing

Exakta patents could be used. Real work commenced at the end of 1933. It was a busy time for all the group, but so keen were they to create the Kine model, that they carried out much of the design work in their own time. It is recorded by Hummel, amongst others, that after work, the group would meet in the famous Dresden beer cellar "De Bärenshaenke", where design problems were worked out by drawing on the beer mats! But because Zeiss technicians also used this bar, the drawings were carefully collected up at the end of each session, to avoid the details falling into the hands of the opposition. Hummel also recalls how Nüchterlein, when he had been worried about a technical problem, was known to visit close colleagues in the middle of the night with his solution. The design team probably went to bed, dreading the knock on the door in the early hours!

During 1934 Exakta A became v.3.2 with the replacement of the winding knob by a lever wind. Because of the need to align the film's backing paper numbers in the red window on the camera back, the lever, which required several throws, operates through a slipping clutch so that the film can continue to be wound after the point is reached at which the shutter is fully cocked.

Exakta B meanwhile became v.2 when the moon/sun logo was added to the embossed Ihagee logo on the viewfinder leather cover, and v.3 with the addition of the lever wind. A sliding cover was also added to the red window on the back, and the infinity locking lever was moved from right to left (when using the camera).

1935

Whilst everything else in the 1935 catalogue appeared as before, the development of the VP Exakta continued apace. Version 4.1 of the Exakta B emerged during 1935, too late to feature in that year's edition. This was a significant revision, because flash synchronization contacts were added to the front of the body, on the user's right. This two-pin socket would take either the Vacublitz flash gun, designed to fit on the front of the body at this point, or an extension lead. Vacublitz used large bulbs filled with aluminium foil, which had become quite commonplace since the late 1920s. Even so, Aguila and Rouah claim that this was the first photographic camera to have such a built-in socket.



Exakta Model B (A&R v.4.1) Garner & Jones catalogue 1938 -
with some of the lenses then available
Version 4.2 has an extra hole to fix the flash.

Lens provision for the camera grew; Makro Plasmal f2.7, Xenon f2 and Primoplan f1.9 now appeared. The two last lenses were 8cm. focal length, whereas the remainder already listed were built as 7.5cm lenses. The three larger lenses required an increase in the diameter of the focusing ring to accommodate their larger diameter. They were available in model A and B.

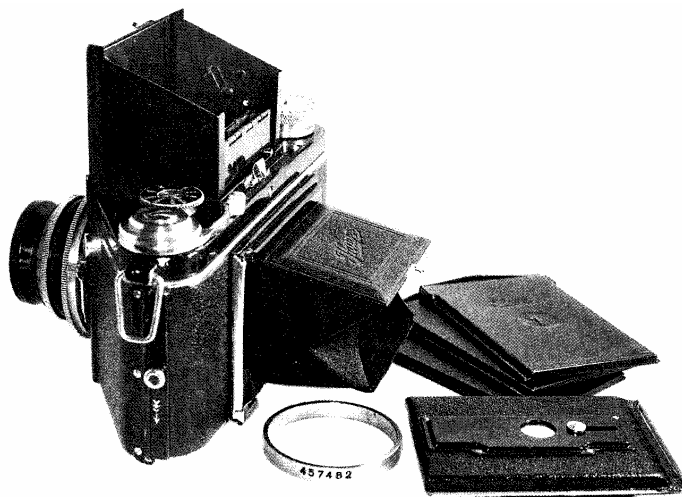
These wide aperture lenses appeared in 1934, and were listed in 1935. They enabled the Exakta to be used in low light conditions. It was not until 1938/9 that the term Nacht-Exakta (Night Exakta) appeared in the catalogue, but the facility for such was already recognized informally with these high performance lenses.

"Model C" is not an Ihagee designation, but one used by dealers for identification; the official name is Exakta Plate Back. This version of the Exakta appeared when a feature, already seen elsewhere in previous years, was fitted to the Exakta. The facility to use 4.5 x 6cm plates was introduced. A section of the camera back, incorporating film pressure plate and red window, with cover slide, can be removed and replaced with either a ground glass screen (with focusing hood) or the dark slide carrying a glass plate. Was this a great idea, or total overkill? In use it becomes very complicated, because the plate (and the focusing screen) are 5.5mm behind the film plane. Reflex focusing can be used with film; but not easily with glass plates, because an intermediate ring has to be fitted to the lens mount to be used with film, and removed when plates are in use, in effect moving the lens back. This is because of the two different positions of film and plate. To use reflex focusing with plates necessitates the removal of the intermediate ring between focusing and exposure! Not very helpful for the impatient!

Why was such a complicated facility needed? A & R point out that in the thirties, the glass plate was still used by professionals, and the availability of emulsions was much greater than that on film, which was probably the reason for their continuing popularity.

A & R record the Exakta Plate Back (on both models A and B) appearing in 1935, but curiously it does not appear in an Ihagee catalogue until 1938/39, although it does appear in a 1936 British catalogue by Garner and Jones, then the Ihagee agents in London,

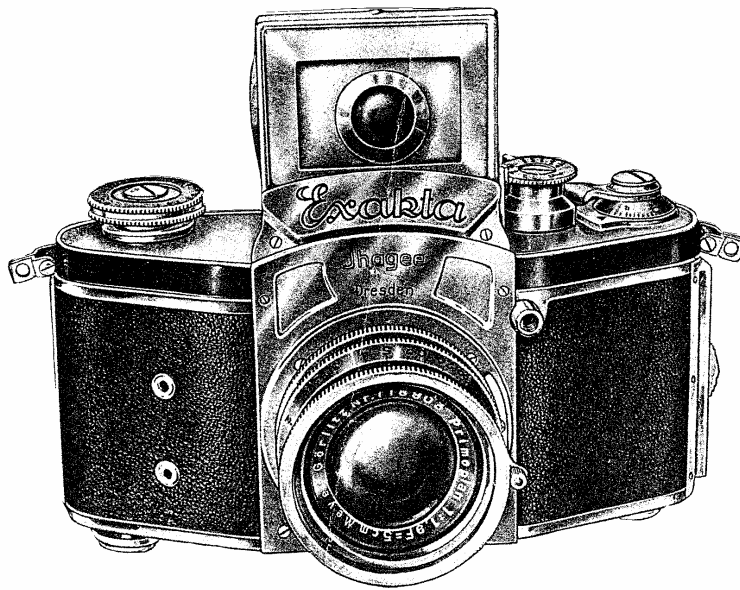
As a consequence of the Exakta development, the earlier Nacht-Reflex 2500, in 4.5 x 6cm format, had now become redundant, and disappeared from the subsequent catalogues.



Exakta B with plate back- the so-called "model C" (A&R no version no) 1935

Illustrations in the Ihagee catalogues did not seem to be keeping up with the rapid development undertaken in the factory. The 1936 catalogue, for instance, did not illustrate a model with the flash synchronization points, and the viewfinder cover was still a couple of years out of date! Vacublitz was not yet listed.

But this trivia pales into insignificance compared with what was actually to occur in 1936. This was the momentous year for Ihagee. In March, Nüchterlein's project had come to fruition, and samples could be exhibited at the Spring Fair in Leipzig. The camera was given the name "Kine-Exakta" because it used perforated cine film. The existing VP Exakta was henceforth given the name "Standard Exakta" to avoid confusion.



The original Kine-Exakta (v.1) with the round magnifier

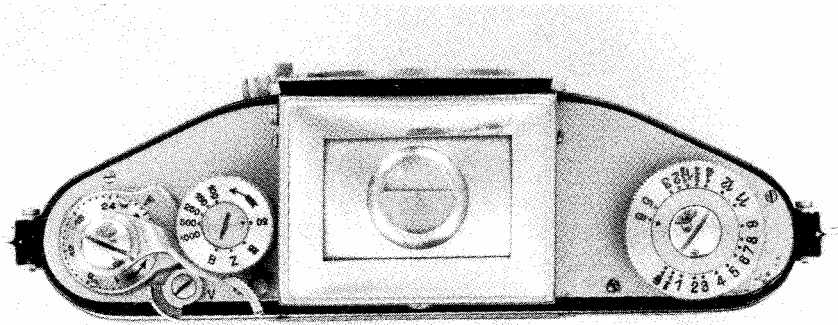
Ihagee leaflet

With five examples of the Kine-Exakta, Nüchterlein exhibited on Sunday the 3rd March 1936. No more cameras were ready at that time, but after high pressure work back in final assembly at Schandauer Straße during the weekend, Rudolph Groschupf performed miracles, and on Sunday evening he delivered another ten Kine-Exaktas to Leipzig.

Hummel wrote:

"The public at the Leipzig Fair admired the Kine-Exakta but were also sceptical. The small dimensions caused concern as to whether they were able to focus properly. Furthermore, it was thought that the reliability would be affected. The Standard Exakta remained the centre of attention at the Ihagee stand.

So it was not a spectacular introduction. It had not been realized that the Kine-Exakta would mark the beginning of a new chapter in camera construction. What was then new about the camera?"



The top plate of the Kine-Exakta (v.1)

(Peter Heimbach)

"In a few words:

First single lens reflex camera to take cassettes of perforated cine film for 36 exposures of 24 x 36mm format.

No parallax between the viewing screen and film.

Bright magnified screen image through field lens and swing magnifier.

Lens changed by bayonet.

Rubberised cloth focal plane shutter giving 12 sec. to 1/1000th, with self timer as well as B and T.

Lever film wind coupled with tensioning of the shutter and film frame counter.

Pair of sockets for connection of Vacublitz flashgun.

Safety catch preventing firing of shutter when viewing hood is closed.

Built in cutting knife to cut off sections of exposed film.

Trapezoidal camera body in die cast light alloy with chrome plate corrosion protection, highly polished edge trim, black enamel, and leather covering.

Dimensions without lens: 150 x 82 x 50mm. Weight without lens: 720 grammes."

(Hummel 1994)

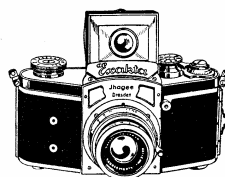
Use of the 35mm film cassette requires the film to be wound back into its cassette after exposure. In theory, a second cassette can be used on the take up side to obviate this, but, in practice, rewinding is more commonly used. To aid this, a winding key is fitted below the camera, engaging with the cassette spool; a small hinged tab adjacent to the main shutter speed dial, is turned, disengaging the film transport system from the shutter winding mechanism. The film can now be wound back into the cassette. If a really urgent need arises to develop a part only of a film, an internal cutting knife can be deployed to sever the exposed piece of film. (Removal in the dark, of course!) Re-connection of the rest of the unexposed film to the take-up spool is then possible, just like the fitting of a new film, except that the unexposed length is shorter.

Instructions for using

the

KINE-EXAKTA

(taking negatives 1X1½"-24X36 mm.)



Ihagee- Instruction booklet

The principal distinguishing feature of the first Kine-Exakta is the round magnifying lens set in the viewfinder hood. Aguila & Rouah referred to this as v.1. Serial production of this camera started in April 1936. User feedback showed that this magnifier, which did not give satisfactory coverage of the whole focusing screen, should be improved. The first change took place in December 1936, and the round magnifier was replaced by a rectangular one, which gave much better coverage of the image. (v.2)

Despite the initial scepticism which had greeted the camera at Leipzig, the market had reacted favourably, realizing that the unique blend of miniature camera and the reflex principle had combined to produce a camera of the highest quality.

Years later, when it appeared to be well established that the Kine-Exakta was the world's first 35mm single lens reflex camera, claims began to emerge that this was not necessarily so. The Russians had contemporaneously developed a rather ungainly looking camera called Sport, and an article in Sowjetskoye-Foto in July 1936 revealed this. Richard Hummel eventually reacted, producing a monograph on the subject. The arguments for and against Sport beating the Kine-Exakta into first place were detailed in Exakta Times no. 14, March 1994. Both cameras were being developed at the same time, but the outcome of Hummel's research showed that the Kine-Exakta went into full production before Sport.

Other things were still happening in Ihagee, and an extensive range of models still appeared in the catalogues. The Standard Exakta was being developed further, and 6 x 9 folding roll film cameras were produced steadily, although it was the Auto-Ultrix series that appeared to be developing most.

Because of high customs duties levied on trade with Czechoslovakia, a small outpost was opened in 1936 in Decin, just over the border from Dresden, where the final assembly of roll-film cameras was carried out. These were mostly Auto-Ultrix models. Groschupf made monthly visits to check on the quality of the cameras built there, prior to their sale locally. This enterprise did not have the status of an independent Ihagee company like those set up in The Hague in 1924 and Turin in 1930.

1937

Export of the Kine-Exakta began in 1937. This was also the year when Richard Hummel joined Ihagee as an apprentice precision tool maker. Together with his parents, he had been interviewed by Karl Nüchterlein, a man he revered for the rest of his life. Although he did not appear to mention this in his writings, he did reveal to Stein Falchenberg, in conversation, that one of his first tasks was to remove the round magnifiers from the stock of focusing hoods, and replace them with the new rectangular version. But there was to be no wastage – the round magnifiers were subsequently sold in stamp loupes!



Kine-Exakta (v.2) with the modified magnifier

(PML)

Hummel records that Karl Nüchterlein was always eager to introduce necessary improvements quickly to ensure that the Kine-Exakta was always ahead of its time. It was Nüchterlein's suggestion that it should be possible to retrofit any improvements to existing models. The Ihagee Customer Service did just that, and older models could be updated. The cost of doing this was very low. Much use was made of this facility, but problems were caused for camera collectors years later, because the number of cameras in original condition has been greatly reduced!

Serial numbers and dates are always a subject of study for serious collectors, and in the case of pre-war Ihagee, subsequent events have greatly reduced the data available across the whole Ihagee range. It was not just the Kine-Exakta that caused confusion, because the principle of updating cameras that came in for repair or modification continued for many years. As a result the date ascribed to various versions is often found to be apparently quite wrong in regard to body numbers. There have even been examples where a whole camera body has been replaced by the latest available version, complete with the original serial number! Some anomalies are thus explained.

In 1937 the Kine-Exakta v.3.1 with extra flash hole appeared. Aguila and Rouah reserve version number v.3.2 for cameras where the name was spelled with a "c" – Exacta. Before the end of the Communist Regime in East Germany in 1989 there had been differing opinions about the need for, or even the existence of this alternative spelling. In fact, the Exakta B and Night Exakta also contained examples of the "c" spelling. Richard Hummel answered a query in 1993 from the Exakta Circle, confirming that "c" spelling Exaktas did exist – having been produced for France, Portugal and the USA. About 500 Kine-Exactas were produced, but the exact number of Standard Exactas is not known. Some publicity material for France and Portugal using the "c" spelling for both cameras has subsequently emerged.

When the Kine-Exakta went into full production, the organization at Ihagee needed some modern management. Rudolph Adamek was a well known expert, and his abilities were recognised in April 1937, when he, too, joined Werner Wurst as Prokurist.

From time to time, the workforce were gathered to hear Nazi propaganda, and such a gathering is illustrated in the Steenberg Biography. According to Herr Seifert of Ihagee, virtually the whole factory workforce, against their will, were made to get in line with Nazi policies. Ingebord Unger, apprenticed between 1934 and 1937, described working conditions as pleasant; the bosses were kind. Happy days of Company outings on the Elbe steamers, enjoyed by all, however, gave way to days of suffering, under the surface. Young Wolfgang Sayffarth asked Johan Steenberg for help when his parents were detained by the Gestapo. Steenberg drafted a petition for Wolfgang, but to no avail. His parents were not released until 1945.

Ingebord Unger referred to continuing compulsory assemblies of staff to hear speeches – one broadcast by Adolf Hitler on the occasion of a visit by Benito Mussolini, the Italian Dictator, to Berlin. “We had to be “correct” and sing Nazi songs” which she and her colleagues did not like. “It was all very difficult for us.”

Ingebord Unger, interviewed on film in “Exakta” by Gunter Eiselt

The numbers of people working for Ihagee is not recorded very clearly. Management had announced in 1933 that the workforce had reached 500. It seems certain that although the building completed in 1929 became known later as the “House of a Thousand”, the numbers employed there were never so great. The expression is thought to derive from Werner Wurst:

“when a thousand hands are no longer enough”.

Werner Wurst - advertising slogan

If every worker has two hands.....perhaps that gives us 500 workers! In 1932 and 1933 there were only 180 employees, an all time low. Management statements show that in 1938 there were 436 employees; in 1939, 448; in 1940, 344 and in 1941, 322.

1938

By 1938, against a background of growing Nazism, Steenberg had already sensed that he might eventually lose control of his capital and be made to leave Germany. Power of Attorney to act for him and his wife in such an eventuality was given to his accountant and friend, Dr. Erich Glier. To safeguard his future income, the pension provisions of the company were modified so that entitlement to a pension was not restricted to ownership of shares in the company.

Despite this difficult background, Ihagee continued to carry out development work on both the Exakta cameras. In April 1938, the Vacublitz sockets were modified on both the standard Exakta and the Kine-Exakta. Use of the two contacts alone to support the weight of the Vacublitz had proved to be inadequate. A threaded bush was added just above the contacts; a screw in the body of the flash unit mated with this and the flash was now supported safely. Thus the Exakta B became v.4.2, and the Kine-Exakta became v.3.



Vacublitz flashgun fitted to a Standard Exakta.
It was supported solely on two contact pins until a third,
screw pin, was added for security.

Ihagee illustration

The Exakta B, which had been almost entirely finished in black enamel, appeared in 1938 with a new, brighter look. The top plate, the front name plate, the lens mount and the frame of the viewfinder were all finished in matt chrome, thus giving rise to v.5. The top edge of the name plate had a slight curve to the top edge. This was deemed sufficient by A & R to create v.6 when the same curved plate appeared on black Exakta B.



A "C" spelling Standard Exakta in the new chrome finish

Exakta Circle archive

By the end of 1938 the full range of Exakta A, B, Plate Back, Night and Junior was available with the chrome finish. The Night Exakta was at last recognized by name, available based on Exakta A and B bodies, with the larger diameter mount to accommodate the larger lenses, and the serial number on the hood.



The Exakta Junior

Exakta Circle archive

Lenses for the Kine-Exakta cameras – and accessories.

So far in this chapter, descriptions of the development of the Kine-Exakta cameras have not made any reference to the lenses that were supplied for them. Ihagee did not produce lenses themselves, although some of their cameras had used lenses bearing the Ihagee name in the past, although made by others. For the Exakta, Ihagee had arranged for three German manufacturers, Zeiss, Meyer and Schneider to make lenses for them, and they have, of course, already been mentioned in preceding chapters, supplying lenses for earlier Ihagee cameras. One of the first lenses for the Kine-Exakta was an Ihagee Anastigmat Exaktar 54mm f/3.5, which may well have been a Meyer product.

In 1936, the first Exakta was available with a 50mm Zeiss Tessar lens, as shown on the front cover of the instruction manual for that model.

Inside the manual, a 75mm f/1.9 Meyer Primoplan lens can be seen, and the text refers to interchangeable lenses:

"....available to suit the special needs of the portrait photographer, the pressman, the sporting photographer, the scientist and the technical photographer, as well as the all the multifarious sides of amateur photography. This range of lenses increases the field of work of the camera to that of a universal miniature instrument. In particular, a considerable number of first-class branded lenses are available for the camera, from telephoto types of very long focus to the latest short-focus anastigmats with apertures of f/1.9. So far as the lenses are concerned, therefore, the entire field of photography is covered, from long-distance scientific work to night snapshots for the illustrated press. More important still, the Exakta camera requires no special range of view-finders, since the image on the ground-glass screen is identical with that given by the lens on the negative. Focusing and composition are equally simple with any lens in the range provided."

Ihagee instruction manual for Kine-Exakta

Over the next couple of years, the range of standard lenses available for the Kine-Exakta comprised:

| | | | |
|----------|------|-------|----------------|
| Exaktar | 54mm | f/3.5 | probably Meyer |
| Primotar | 54mm | f/3.5 | Meyer |
| Xenar | 50mm | f/3.5 | Schneider |
| Xenar | 50mm | f/2.8 | Schneider |
| Tessar | 50mm | f/3.5 | Zeiss |
| Tessar | 50mm | f/2.8 | Zeiss |

Although the name was never widely used for the Kine-Exakta, the use of three wide aperture lenses gave the camera the catalogue name Nacht-Kine-Exakta. They were:

| | | | |
|-----------|------|-------|-----------|
| Xenon | 50mm | f/2 | Schneider |
| Biotar | 58mm | f/2 | Zeiss |
| Primoplan | 58mm | f/1.9 | Meyer |

All these Kine-Exaktas were allocated the model number 8140 – the significance of the last two digits seems to have been abandoned!

Listed as accessories in Ihagee leaflets of the period, other lenses were also available. Starting with the wide angle lenses first, these were:

| | | | |
|------------------------------|-------|-------|-------|
| Weitwinkel-Doppel-Anastigmat | | | |
| | 40mm | f/4.5 | Meyer |
| Tessar | 40mm | f/4.5 | Zeiss |
| Primoplan | 75mm | f/1.9 | Meyer |
| Triotar | 85mm | f/4 | Meyer |
| Trioplan | 105mm | f/2.8 | Meyer |
| Trioplan | 120mm | f/4.5 | Meyer |
| Triotar | 135mm | f/4 | Meyer |
| Tele-Megor | 150mm | f/5.5 | Meyer |
| Tele-Megor | 180mm | f/5.5 | Meyer |
| Tele-Megor | 180mm | f/6.3 | Meyer |
| Tele-Megor | 250mm | f/5.5 | Meyer |
| Tele-Tessar | 250mm | f/6.3 | Zeiss |
| Fern-Objektiv | 500mm | f/8 | Zeiss |

Quite quickly after the initial appearance of the Kine-Exakta, a wide range of accessories was appearing. Supplementary lenses for close-up work; extension tubes; lens hoods; coloured filters; polarization filters; a large shutter button for use when wearing gloves; a leather covered extension for the viewfinder hood, with its own lupe; tripods; two sizes of Vacublitz sets; a reproduction stand; a bakelite refillable film cassette; enlargers (with or without lenses) and a slide projector. More details are listed in the next chapter.

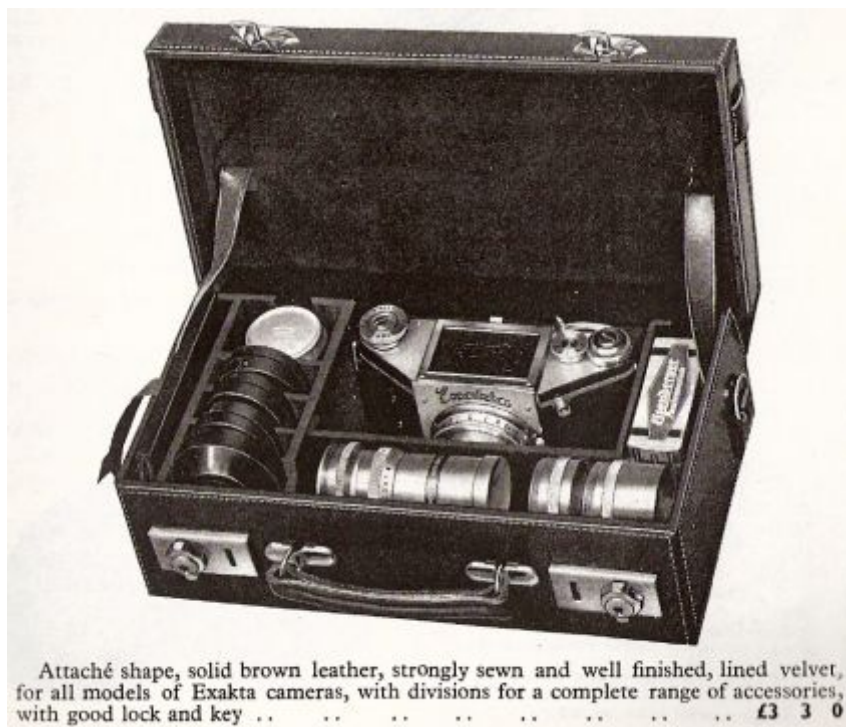
In addition to the camera instruction manuals, books were beginning to appear – notably from Gerhard Isert, who produced fully illustrated manuals both for the Standard Exakta and the Kine-Exakta. There were English versions, translated by Philip Smethurst. Exakta-Spiegel was a quarterly magazine (referred to as the Ihagee House magazine) and could be ordered on a subscription basis.

Colour brochures also appeared extolling the virtues of the Exakta reflex cameras. 18 large pages, folded for compactness, with the main colour varying according to the language in which the brochure was issued. This must have been Werner Wurst at his most expansive!



Viewfinder extension hood fitted to a Standard Exakta.

(PML)



Outfit case shown in Garner and Jones catalogue for 1939

Looking back over the years since production recommenced after World War I, it has been explained how production varied from year to year. Michael Charlier, a member of Ihagee Historiker Gesellschaft, produced the following table, which illustrates the annual production.

| Annual Production of Ihagee Cameras | | | | | |
|-------------------------------------|--------|------|--------|-------|--------|
| 1920 | 3,500 | 1927 | 43,000 | 1934 | 20,000 |
| 1921 | 5,000 | 1928 | 47,000 | 1935 | 25,000 |
| 1922 | 7,000 | 1929 | 48,000 | 1936 | 35,000 |
| 1923 | 10,000 | 1930 | 49,000 | 1937 | 35,000 |
| 1924 | 15,000 | 1931 | 48,000 | 1938 | 35,000 |
| 1925 | 24,000 | 1932 | 30,000 | 1939 | 35,000 |
| 1926 | 35,000 | 1933 | 25,000 | (1940 | 8,000) |

The serial numbers of the cameras produced during these years started with number 15,500 in 1920 and ended with number 598,000 when production ceased as World War II took effect.

CHAPTER SEVEN 1939-1945

1939 – and turmoil

Times were becoming increasingly difficult in Germany with the growth of Nazism, and its regime of terror, and for Steenbergen in particular, there were fears because Elizabeth had Jewish ancestry. To the rest of the world, however, work appeared to be progressing normally at the Ihagee factory. The 1939 catalogue revealed a product range that was still considerable, although rationalization meant that many older models had now been dropped. The Serien Reflex 2110, 2120 and 2113 had gone, as had the Nachtreflex 2510. The range of folding plate cameras had lost Derby 310 and 320, Ama 420, Photoknips 200, Mikrobie 500, Auto-Photoklapp 2220, Luxus Duplex 820, 830 and 840 and Tropen Neugold 910 and 920. The stereo version of Zweiverschluss was dropped also.

Viktor 510, 520 and 530, together with Photoklapp Duplex 710, 720 and 730 (a renamed Patent Duplex), plus Zweiverschluss Duplex 1010, 1020 and 1030 were all that remained from such a long and distinguished list of folding plate cameras that seemed to have been around for ever! The two stereo cameras, Ultrix-Stereo 1690 and Stereo-Automat 1715 still appeared, as did Sportkamera 1810, 1820 and 1830, and the former Corona, now called simply Ihagee-Reisekamera 2030, 2040, 2045 and 2046.

The Patent-Klappreflex (PFR) was retained in all its previous models, but the range of Ultrix folding rollfilm cameras had been severely culled, and was represented now by the Auto-Ultrix 2860, 3860 (the one with the plate back option), 4860, Westentaschen-Auto-Ultrix 2850, and the Parvola with three models, as previously described. Parvola 1550 now used a lever wind instead of a knob – the part in use looked very similar to that in use on the Standard Exakta. Auto-Ultrix 2860 and 4860 were now dual format cameras, basically the expected 6 x 9cm picture, and by using an internal mask 4.5 x 6cm pictures could be obtained, giving a greater number of exposures on the same film size.

Just how many of these older models would have been sold in 1939 is open to conjecture. That they were still notionally available is surely confirmed by their presence in the catalogue, but in the face of all the modern technology now on offer in the range of Exaktas and their accessories, who would now be buying them?

A new venture in 1939 was the introduction of a 6 x 6cm Exakta, 8160:
(below)



Ihagee illustration

The photographic profession was enjoying using 6x6cm, which solved at a stroke the problems of landscape versus portrait formats, and offered about 38% more picture area than the Standard Exakta. Management at Ihagee had started thinking about such a project in 1937, but now it was Karl Nüchterlein's turn to be sceptical about it. In many respects this was an enlargement of the previous Exaktas – the shutter was similar, as was the trapezoidal body shape. The film transport and shutter winding lever was underneath; the top plate was chromed like the Kine-Exakta. The mechanism in the Kine-Exakta depended on the perforations of the film, and Nüchterlein felt that this new type of lever wind mechanism would not be able to cope with the transport of unperforated paper-backed roll film. (Strangely enough, other makers achieved this, and Ihagee themselves had already done something similar with the smaller Standard Exakta).

However, development of the Exakta 6 x 6 began in the middle of 1937, led by Willy Teubner. He had been at Ihagee since 1928, as an engineer and later as a manager. He had been one of the original Exakta design team. Hummel described how a small drawing office and workshop was available to him, where the production of experimental parts was undertaken. A prototype workshop was set up in 1938. Second-year apprentices, including Richard Hummel, produced the detailed drawings, often for parts with very complicated curves. They faced many technical challenges, but the company was behind them, and Teubner's experience and ingenuity led them to produce the majority of the prototype components.

The first model was shown at the Leipzig Spring Fair in 1939. Ihagee were not the first in the field with this camera however, and the Beier-Flex II (also a 6x6cm SLR) was also shown. Beier had shown their first 6x6 SLR the year before. Although the Exakta 6x6 was of a higher technical standard, it did not compete with the more favourable price of the Beier-Flex. Reports from the Fair were not at all effusive.

Also offered at the Fair was a Night-Exakta 6x6, which was the same camera with a very fast lens – either an f/2 Biotar or an f/1.9 Primoplan.

Series production was delayed because faults in the film transport system had not been sorted out satisfactorily. *So Nüchterlein was proved right!* In fact, production did not begin until August 1939. 1500 bodies later, production had stopped by November 1939. But this was not the end of the Exakta 6x6 – yet.

Taking into account the Parvola, there were now four Ihagee cameras with die-cast aluminium bodies instead of complicated sheet metal pressings. Peter Heimbach wrote in Exakta Times No.25 (Dec 1996) about the provision of these parts by Druckguss Heidenau. (See Appendix v.)

It was the range of Exakta cameras now available that led to the demise of so many older cameras that Ihagee had now stopped listing. Particularly the Serien-Reflex would not, in theory, have competed with the new Exakta 6x6, nor would the Nacht-Reflex have competed with the technically brilliant Nacht-Exaktas. The decreasing use of plate cameras similarly led Ihagee to reduce the models supplied to the Viktor and Patent-Duplex ranges. In any event, the floor space in Schandauer Straße was now needed for the production of the new cameras launched onto the market in the last few years.

Let it not be thought that the output was solely the new cameras. There was a large range of accessories produced to enhance the use of these cameras. Leather ever-ready cases were made for all three sizes of Exaktas; alternative interchangeable lenses, both wide angle and longer focus, were available, as were leather cases for such lenses. Auxiliary lenses could be supplied to change the

focal length of the basic lenses, which were an inexpensive way of making minor adjustments, rather than incurring the costs of complete lenses. Extension tubes were supplied in a range of lengths for the Kine- and Standard-Exaktas for close up photography. Used with the extension tubes were microscope adaptors, fitting directly onto the instrument and enabling either Exakta to take direct photographs of the microscopic image. For use in bright lighting conditions, the hood of the focusing screen on the two smaller models could be extended by a card and leather covered rectangular tube about 5" deep, including its own loupe for focusing.

A large knob could be fitted to the shutter release button, for use in cold weather when gloves were worn (referred to in the Garner and Jones catalogue as an "Aviator's Shutter release"); similarly a larger knob could be fitted to the rewinding key for ease of use. Lens hoods were provided for all the lenses listed, and a lever could be fitted to the focusing ring of a Standard Exakta, again for greater ease in use when wearing gloves.

A range of filters were supplied; yellow, green and ultraviolet; soft focus attachments and polarization filters, all available in a range of sizes. There was a small tripod for copying work, and a microscope adapter for both the Standard Exakta and the Kine-Exakta. The Vacublitz flashgun was suitable for use with all three sizes of Exakta – and a second option included accessories to use two flashes simultaneously. Vacublitzes were supplied in very nattily striped boxes.

A copying stand with a vertical column used a friction drive to adjust the camera position. The use of extension tubes enabled the operator to match the size of the object to be copied. An extension to the vertical column could be used for greater versatility. Alternatively, a much larger wooden, horizontal reproduction stand could be used for copying, for example, drawings pinned to the copy board, up to 54 x 68cm (about 21½ x 27 inches).

Although the use of 35mm film had been originated by Leitz, it was the introduction of the Agfa cartridge in 1932 which had led to the inspiration for, and the subsequent development of the Kine-Exakta. Ihagee now supplied their own version of a reloadable cassette, made in a form of bakelite (kunstharz). These bore the name Ihagee on one end. Being a relatively cheap item of equipment, it is not surprising that only a few of these cassettes seem to have survived, although today they would be a desirable small item for the Ihagee collector.

What was not evident to the outside observer was the pioneering research work being undertaken by Nüchterlein. Richard Hummel described how

"Karl Nüchterlein had no few plans for the perfection of the single lens reflex, especially concerning the problem of the built-in exposure meter. He was not looking for mere incorporation of the light-meter into the camera body, but rather for measurement of incoming light through the objective lens. In Patent number 722135 of 28 July 1939, *Mirror-reflex camera with Light-meter*, he described the detailed function and method of light measurement through the objective, what is today called through-the-lens-metering, with readings in the viewfinder. With this patent he made a further advance in technique. It was in 1962, 23 years later, that built-in TTL metering in a single-lens reflex was first realized in practice, in the Topcon RE-Super made by the Tokyo Optical Company. This camera used the Exakta bayonet fitting for the lens mount. It could be argued that this represented a belated recognition of Nüchterlein's Kine-Exakta". Hummel 1994

Nüchterlein knew very well that there were still problems with single lens reflex cameras that needed to be dealt with. He knew that there were problems with light metering when using interchangeable lenses and extension tubes for close up photography, and that proper results could only be achieved if the metering took place through the camera lens.

The need for improved focusing led him in 1939 to make contact with Dahl & Peithmann in Bunde, in order to improve the focusing further with the Dapei Measuring Grid. He worked on the development of clockwork motor drive for the Kine-Exakta in order to be able to take series shots.

Close-up photography posed problems of uneven lighting. Nüchterlein was close to producing a lamp-ring with 12 radially disposed 6 volt lightbulbs which could be screwed into the filter thread of the lens. In all, he participated in the registration of more than twenty patents – some current to the work he was then doing, and some for the future.

But for Ihagee all this remarkable work was to come, quite quickly, to a crunching halt after 3rd September 1939: "Following the takeover of the (German) government by the Nazis, Steenbergen had travelled less and less, because his wife was of Jewish origin, and anti-Semitism was growing rapidly in Germany. This naturally increased his dislike of the Nazis. Fortunately Elizabeth had American nationality, which protected her to some degree from persecution."

Steenbergen Biography

The reduction in the number of workers after the beginning of the Second World War is explained partly by the call-up of men liable for military service, and partly by the caution of the Nazi government in its Enemy Power movement, in allowing arms production to supersede everything else. The supply industry was turned to making equipment for navigation. Civil camera production was brought to a stop by 1940, and full war production began in all Dresden camera factories. Cameras were only made in small numbers for special uses in the war effort, such as photographic interpretation, and then, only until 1943.

"On May 10th 1940 German troops invaded the neutral Netherlands. As Consul of what was now an enemy nation, Steenbergen was arrested on May 11th. During his captivity, he was visited by a Rustungscommissar (Commissioner for arms procurement) and two senior officers, who wished to ensure his cooperation in making his factory available for war production. Steenbergen refused; he and his wife were then interned.

After a short imprisonment they were allowed to return to Dresden, but forbidden to leave the city, and Steenbergen lost the full control of his assets. He was not allowed to enter the production areas of his factory, which were now under the direction of the Air Ministry. In August 1941 the properties of both Steenbergen and his wife were completely confiscated. Curiously, this did not mean that Johan was not allowed into his office at the factory: he was able to continue to work there.

In August 1941 the managers and directors of the company were dismissed, and a member of the Nazi party was appointed as managing director. Steenbergen was afraid that this man could so mismanage the company that he might lose his entire property. In order to reduce that risk and to protect the name and enterprise, the name and structure of the company were changed. Ihagee Kamerawerk was split up on 8th October 1941; land, buildings and machines remained the property of the original company but under the name of Steenbergen & Co."

Steenbergen Biography

Blumtritt records that Diebel, Englisch and Frauenstein were board members. In the event of the mismanagement feared by Steenbergen, the liquid capital might

be lost, but not the buildings and machines. After his return, Steenbergen reasoned that he would be able to start again with them. "Moreover, Steenbergen & Co acted as a holding company for a part of the shares in a new firm entitled Ihagee Kamerawerk AG. The remaining shares were left in the hands of the original partners; Steenbergen's share in both companies remained at 61%.

Steenbergen attempted to leave Germany by arranging an exchange with German diplomatic personnel abroad, even though he knew that he would not be allowed to export his capital. Eventually, in 1942, Elisabeth, as an American citizen, managed to obtain an exit permit and Johan was allowed to accompany her. On 15th May of that year, and with the help of neutral Sweden and Switzerland, Johan and Elisabeth left Dresden – never to return.

After a short farewell visit to relatives in the Netherlands the couple traveled via Lisbon to the United States. They stayed, firstly, in New York, before moving to San Francisco, where Elisabeth had relatives and some property."

Steenbergen Biography

They had minimal funds, but managed somehow to take ten cases of possessions with them, although the Nazi imposed limit should have been one!

Before leaving Dresden, "Steenbergen had agreed with his partners to try to promote the interests of Ihagee in the USA. He contacted various photographic companies in order to have the Exakta produced under licence, but this initiative failed, mainly because the allies had taken trade rights and patents into custody.

Late in 1943 Steenbergen started work in the Netherlands consulate in San Francisco; in March 1944 he was promoted to Consul."

Steenbergen Biography

Meanwhile, in Dresden, Karl Nüchterlein had been exempted from military service because of his technical skills. He was granted a U.K. status, meaning that his function and activities were indispensable, and he was spared from serving in the military forces. However, in 1942 a campaign was started against him because he had a tendency to react fiercely when confronted with criticism by people not knowledgeable in the subject, irrespective of their status. Having upset a few people in the Nazi-imposed management, his U.K. status was annulled, and he was called up for war service in 1942. After a brief fourteen day training, he had to serve as a soldier in the infantry, and take part in the so-called Balkan Campaign. His last message to his wife was received in April 1944, and subsequently he was reported to be missing in action.

Because of his health, Werner Wurst was not called up for military service during the war, but when camera production was stopped, and all productive machinery was adapted to armaments manufacturing, he worked in a technical division of the German National Defence. In 1945, like so many others, he had to train in hand grenade throwing, being enlisted compulsorily as "Volkssturmman" – a member of the Peoples Assault Party (Germany's last line of defence).

Richard Hummel had suffered from Polio as a child, and had to use a caliper to support his leg. This meant that through disability he also was not eligible for military service. At the end of his apprenticeship he got a job at Zeiss Ikon, and stayed there until the end of the war. After further engineering studies, he rejoined Ihagee in 1950.

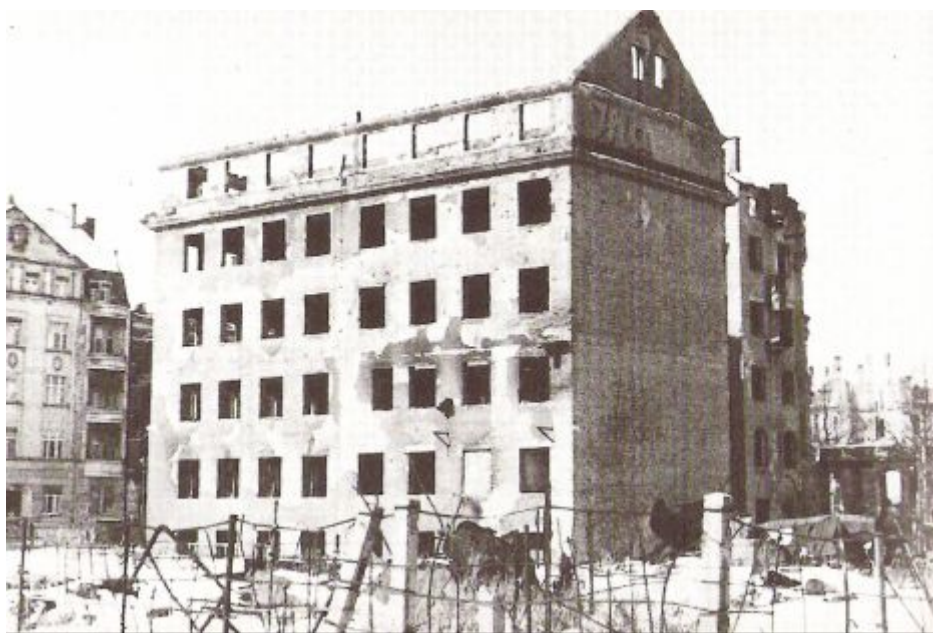
Nevertheless, he was later able to record how the establishment of Ihagee Kamerawerke A.G. created the need for a new board of directors, and a committee of management. The Nazi administration soon stopped that. Using the Dresden High Court, the Reichskommissar for Enemy Property appointed Hans Manicke as the Administrator of the firm, who took over the functions of the boards, and appointed his own representatives. Rudolph Adamek became Technical Director,

Gerhard Richter became General Manager, Jan Siewers became Sales Director and Kurt Einer, Accounts Director. Curiously, Adamek and Richter were Ihagee men, having been deputy members of the board. Obviously Manicke still needed the expertise of experienced managers to run the company. It is recorded that relationships were strained, to put it mildly!

In 1943 the workforce, still between 500 and 600, and mostly women, was engaged on arms production. There was now a security consideration, and foreign workers and prisoners of war were not used. There is no detailed account available, so far as the author is aware, of what the factory was making, other than a vague reference to optical bomb-sights, by Stein Falchenberg in conversation.

13th February 1945 – Devastation

On 13th/14th February 1945 the Allies bombed Dresden, and completely devastated the city centre. Outlying parts of the city were also damaged, including 24 Schandauer Straße. Contemporary photographs show that the front of the building was ruined; the frontage to Glashütter Straße (below) appears to be burned out, but the walls were still standing. Internally, the entire building was burnt out. When the cellars were opened “they contained nothing but ash”. Ironically, nearby buildings to the west, on the opposite side of Bergmannstraße, appeared to have largely survived, and can still be seen today.



The remains – as seen from Glashütter Straße. To the right, the staircase tower seems to be the only part of the north wing standing; the rest is largely collapsed. The buildings to the left are on the west side of Bergmannstraße, and are still there today.

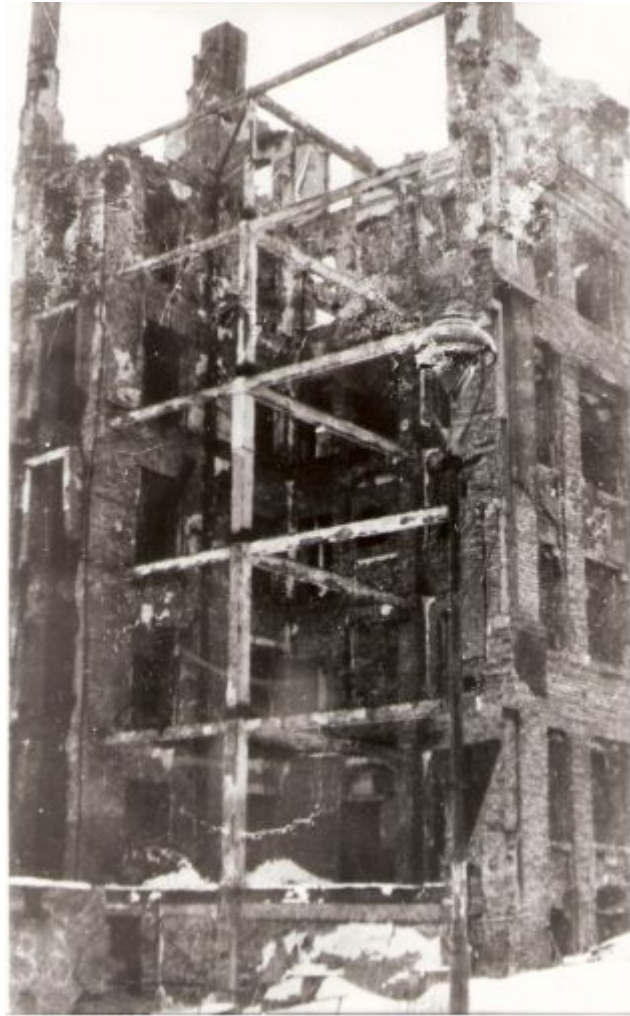
Exakta Circle Archive

570 workers, including 380 women, lost their jobs that night.

Werner Wurst lost all of his belongings, including all his photographic material.

Hummel records that rescue operations, and salvaging of usable machinery and equipment began the day after the destruction, at great danger to life from falling floors and walls. The disturbing nature of fire on the integrity of building structures was borne out in the city centre where the mighty Frauenkirche, built

of sandstone, had apparently survived the firestorm of that dreadful night, only to collapse the following day, because all the metal, bonding and reinforcing the stonework, had melted in the fire.



The ruins, seen from Bergmannstraße.

Exakta Circle Archive

Quite soon a few repairable machines and usable tools were collected, and a limited programme of arms production was set up in the Certo factory in Zschachwitz, a little way to the south-east of Striesen. It made little contribution to the dying war effort, and so some capable employees turned their attention to refurbishing usable camera parts. One can imagine that members of the crumbling Nazi administration were, by then, more concerned in attempting to secure their own futures than bothering with what Ihagee employees were doing..

The management of Ihagee, led by Rudolph Adamek, tried to find an answer to their needs for floorspace, and in April 1945 received permission to use the old Delta works of Zeiss-Ikon AG at 41/43 Blasewitzer Straße. The Properties Commission of the City of Dresden was dealing with the allocation and disposal of this burnt out and partially destroyed building. It had originally been the Reemstra cigarette factory, but during the war it had been used by Zeiss-Ikon AG. The first leases were due to become effective on 22 May 1945, but were delayed when, on the 8th May, the Russians arrived in Dresden.

The war ended in Europe on 8th May 1945.

CHAPTER EIGHT 1945-1949

The Restart.

Blasewitzer Straße, the Russians, and the German Democratic Republic.

What happens to a defeated country when a war is lost? The towns are in ruins, the population (or what remains of it) is dispirited, probably desperate, hungry and largely without income. Nazism, which had governed German lives for some twelve years was now totally discredited, to be replaced, on the one hand, in the west, by a gradual, controlled transition into democracy, and on the other hand, in the east, by a substitution of one form of totalitarian control by another.

The conquering forces now faced a major change in their own role, and became bodies to oversee reconstruction. Infantry were still needed for security and control; but were augmented by engineer regiments, to help rebuild, to feed the population and recreate their lives – all, of course, within a political agenda. And that agenda was clear enough in the region overrun by the Russian forces - the imposition of Communist rule. This the Western Allies had dreaded, and whilst some might naively have expected that joint rule of some idealized sort could have been imposed on the whole of the conquered territories, the reality was far from the truth. In general, those parts of Germany that had been overrun by the Western Allies, continued to be occupied by them, and similarly, the Russians maintained their position in the east. Special provisions came into force so far as Berlin was concerned, which was surrounded by Russian controlled eastern Germany. The Western zones of the city, occupied by British, American and French forces, became isolated within Soviet East Germany.

Countless historians have recorded the relationship between East and West, the division of most of Europe into two political entities with Communism ruling in the East, not only in eastern Germany, but all countries east thereof. Only Austria emerged eventually under a banner of neutrality, and Switzerland of course had always been neutral. As the years passed by, the division hardened, and the so called Cold War between East and West existed for more than four decades. West Berlin only managed to exist independently with the aid of a great air-lift of supplies, replaced eventually with very restricted road corridors to the west. Eventually a wall was to separate East and West Berlin physically, and a substantial, defended frontier was built between East and West Germany. They were to become worlds apart.

However, this account is not intended to be a historical or political record of international relations, but is written simply to paint the background against which the Ihagee story continued, against all the odds.

"In view of Johan Steenbergen's experience as a director and proprietor of a major company in Germany, the Netherlands government asked him to go to Germany after the war on the staff of the Allied occupation authorities. In 1946 he was commissioned straight into the rank of Colonel, a source of some amusement to him, having had no previous military experience. He was attached to the Netherlands military in occupied Germany until 1949 and stationed successively in Baden-Baden, Munich and Berlin, representing the Dutch government with the authorities of the occupation forces in the various cities. He had hoped to return to Dresden and start reconstruction of his factory, and that with the support of the Military Mission he could obtain an entry permit for the Russian zone including Dresden. Despite numerous formal attempts, the Soviet authorities refused to allow this. Postal traffic was badly obstructed and

telephone communications were either bad or forbidden. But eventually he managed to contact his former partners, after which he was allowed to send them food parcels regularly".

Steenbergen Biography



Johan Steenbergen as a Colonel in the Netherlands army.

Steenbergen Biography 2000

What of the population of Dresden in 1945? The natural urge of people to survive was a tremendous motivation. Attention turned, almost within hours of the air raid, to opening the streets that had been blocked by rubble, clearing ruined buildings, restarting the public utilities and so on. The survivors of Ihagee's workforce had a particular perspective – to get their industry up and running again, as soon as possible. Even the day after the bombing, rescue operations had begun, as described in the previous chapter.

The Dresden camera industry lay in ruins. Hummel estimated that 80% of the workspace in the inner city was so affected that it was impossible to use it immediately. However, in the photo-quarter of Striesen, things were a little different. Here the air raid had been largely incendiary, and the streets were intact. Even though many factories suffered fire damage, fire fighters had prevented the worst damage, especially at the ICA works of Zeiss-Ikon (the former Ernemann works) further along Schandauer Straße at number 76.

Workforces had also suffered great losses; some missing or fallen in the war, some killed in the bombing raids, some taken as prisoners of war or evacuated from the city. Prisoners of war would have to wait months or even years for repatriation.

The surviving Ihagee workforce had, as already mentioned, succeeded in salvaging some machines and materials from the ruins of Schandauer Straße, and surprisingly soon after the bombing, had set up production again in the rented building in Blasewitzer Straße.

Inge Bahr was a niece of Rudolph Adamek, and was employed by the Russians as part of a huge workforce clearing rubble when she became the first apprentice, appointed by her uncle, to the post-war Ihagee. She has recounted when interviewed on film in "Exakta" by Gunter Eiselt, seeing a figure, in an old army greatcoat, hanging around at Blasewitzer Strasse, looking for a job. He was Max Rockstroh. He had learned to speak excellent Russian at university before

the war. He was hired in 1945 and revealed a fantastic organizational talent, being quickly promoted to a managerial position.

Rockstroh spoke of his negotiations with the Soviet Military Authority (SMA). Most people feared the Russians, needlessly, he thought. He got on with them well, and negotiated with them, quite successfully.

Ihagee was operating independently under the Russian occupation, and the key point that distinguished them from the other Dresden companies was that they were still owned by a Dutch firm, and the Netherlands had been a wartime ally at that! In a nutshell, the Russians and the Saxony Regional Government had to handle them in a sensitive manner. Although the manufacture of simple household articles was begun in this relocated Ihagee factory in June 1945, the team soon turned to the Kine-Exakta. Parts had been recovered from stores, and other parts were made. Clearly the die-casting company at Heidenau was eventually in a position to renew supplies of body castings. Up to the end of 1945, 320 Kine-Exaktas were made. The work force needed some income and thus the newly made cameras were traded for ration coupons, and some (50 is estimated) went to the buying co-operative of the Red Army, for cash. Rockstroh told of the "diversion" of some cameras to Russian gentlemen, who paid a proper price. Erika Maukshe was an Accountant at this time (later Chief Accountant), and knew of these diverted cameras.

"There was a need to make the Russian officers more appreciative of our problems and this helped – but I wasn't supposed to know about it."

Erika Maukshe, interviewed on film in "Exakta" by Gunter Eiselt

Hummel records that with the destruction of the entire factory building on Schandauer Straße, all records and archive materials were lost. There were no longer any specifications or technical drawings of the earlier Ihagee products, without which the Restart could not begin. By the middle of May 1945 the creation of basic drawings for the Kine-Exakta was started, and Inge Bahr was part of the team doing this. This laborious task was led by Otto Helfricht, who already knew a lot about this camera, having been an original member of Karl Nüchterlein's design team in 1930. He had been an Ihagee man from July 1925. The new drawings were completed by the end of 1945. There was no redrafting of drawings or technical data for other non-Exakta Ihagee products, both because of manpower problems and because the technology was, by now, obsolete. But the future of the Kine-Exakta was seen to be important and promising.

Not all the other Dresden camera factories fared so well as Ihagee. Most of them were controlled by the Red Army, normally by a group of officers. Both Hummel and Blumtritt describe what went on in those early days. Selected camera factories and other industries were dismantled – all machines, fitments and tools were demounted and packed for transshipment. This even included office furniture, so that usable buildings became empty shells. However, the goods were not yet transported out of Dresden, but were held in railway wagons in the marshalling yards. (Hummel 1994, Blumtritt 2001)

Everything was regulated by the Supreme Command of the Soviet Military Authority (SMA). Order No. 124 of 30th October 1945 announced the seizure and provisional take-over of some types of property in Germany, essentially on the pretext of preventing looting and misuse of property which had earlier belonged to The Hitler State, the military authorities, and to defunct companies, clubs and associations now prohibited. This limited severely the role of the Saxony Regional government, which at the time had control of all Dresden camera factories. Trustees were appointed to the undertakings which had been seized.

The delivery of cameras and accessories formed part of the reparations demanded by the military government. Hummel thought that this was not unreasonable for the companies concerned, because they now had to be re-supplied with machines, equipment and materials! Regional governments had to bear the cost, but the goods had to be delivered free to the USSR. The irony of this was, of course, that the stored machines, equipment et al, had to be returned to those from whom it had been originally seized, in order that they could fulfil that which was now required! The return of all this proved to be mostly disorganized, with totally wrong and unsuitable machines being offered to some undertakings. But things eventually got sorted out. The supply of materials became possible through the military authorities.

These reparations, supplied to the Soviet Union, began in 1946, and are believed to have continued until 1949. In most instances these deliveries were only part of the total output of the enterprises, and as the factories became more and more efficient, bonus "payments" were made in the form of groceries.

This was not confined to the Dresden situation; Soviet military authorities in Saxony and Thuringia made identical demands on Zeiss Ikon in Dresden and Jena, to remove the entire Contax production to Kiev – bodies and lenses, construction and technical drawings, tools etc. Everything was to go, so that a new production could start in Kiev. A pilot production in Jena was to be followed by the transfer of the German and Russian specialists to undertake training of skilled workers in Kiev. This process was well nigh impossible at the time, because so much had been destroyed in Dresden, and the necessary machines had already been packed up for transshipment to Kiev!. But it all got sorted out in time, and some 600 to 800 Contax cameras were manufactured, before production moved.

Once Ihagee were able to implement the lease of 41/43 Blasewitzer Straße on 22 May 1945, this date became the "Restart". There were 42 employees, and they were mainly used, at first, on clearing-up operations and rebuilding. The firm traded under the name Ihagee Kamerawerke AG. Hans Manicke remained as Works Manager, a role he had filled since the AG was established in 1942. Later in 1945 he was to join the Saxony Regional Government, and was replaced by Rudolf Adamek as Works Manager and Trustee. Adamek had been a deputy board member for many years, and, it will be recalled, had joined Ihagee in 1937.

The workforce grew slowly, and at the end of 1945 there were 86, now producing the Kine-Exakta to make some money. As Hummel puts it – "The quick restart of camera production showed results". (Hummel 1994)

Negotiations were taking place in the autumn of 1945 with the Soviet Military Authority in Berlin regarding the quantity of Kine-Exaktas to be made available as war reparations. As with other enterprises, the necessary tools and materials would be supplied with the assistance of the Russians, and the costs of production would be borne by the Regional Government of Saxony. Max Rockstrohe was later to claim that he had the Russians working in his – and of course – Ihagee's interests. On 3 January 1946, Ihagee received a firm order to produce 20,000 Kine-Exaktas as part of the overall reparations programme. Quoting from a contemporary Company Report: - *"This creates a sounder basis for the reconstruction of the firm and its finances"*. (Ihagee Company Report)

Reparations of the Kine-Exakta continued until 1949, and alongside this quota, a growing number of cameras was exported to the USSR, and a few to the west, while some were sold to Soviet buyers in Germany, and German buyers.

The annual production, in terms of its growth, seems quite remarkable, given the circumstances. By the end of 1946 the workforce had grown to some 400 personnel.

| | 1945 | 1946 | 1947 | 1948 | 1949 |
|---------------------------------------|------|------|-------|-------|-------|
| Reparations: | | 3866 | 6738 | 6313 | 2664 |
| Export to USSR | | 400 | 4705 | 8776 | 10963 |
| Export to West | | | 44 | | 2207 |
| Available to Soviet buyers in Germany | 50 | 264 | 833 | 1049 | 1592 |
| Available to German Buyers | 270 | 6 | 62 | 45 | 647 |
| Totals | 320 | 4536 | 12382 | 16183 | 18073 |

In April 1946 Rudolf Adamek resigned as a Trustee of the firm, in order to concentrate on his position as Works Engineer. A former Prokurist, Georg Weisner, replaced him as a Trustee.

Werner Wurst also left the firm, although for very different reasons. He established himself as an independent photographer and publicity expert. His first darkroom was situated in a rebuilt ruin close to Sachsenplatz, just east of the city centre, and close to the river. Writing in 1985, he revealed that from 1946 he had, independently, been writing practically all the Ihagee publicity, from operating instructions, specialist literature and pamphlets to exhibition stands. He went on to become a world renowned author and photographer, with his written output totaling over a million copies. His master work, *Exakta Kleinbild Fotografie*, was printed in English as *Exakta Manual*, and was translated into many other languages. Various editions of this work matched the issue by Ihagee of successive models of the Exakta.

Recalling that Order No. 124 had given notice of sequestration on 30th October 1945, the Dutch Military Commission in Berlin forcefully reacted, but only some eight months later:

"These premises are Netherlands property and consequently under the protection of the Royal Netherlands Government, represented by the Netherlands Military Mission to the Allied Control Council in Germany

Berlin. 22nd June 1946

F.W.Graandijk, Head of the Military Mission..."

Steenbergen Biography

One can only wonder whether Colonel Steenbergen had a hand in drawing up this response?

Not, perhaps, as a direct result of this, but both the Soviet authorities and the Saxon regional government had been contemplating the nationalization of the firms that had been confiscated. A referendum was taken on 30th June 1946, as a result of which more than two-thirds of the Saxon people are alleged to have voted for the conversion of those firms into "volkseigene Betriebe" – "people's enterprises", more familiarly known to us as VEB. The processes of putting this into effect dragged on for some years with various supervisory organizations being set up, revised and expanded as they developed. Full details of the processes involved, both in Eastern Germany and in Dresden are to be found in the books of Richard Hummel and of Herbert Blumtritt.

In this period of great bureaucracy, when the whole structure of the German camera industry, and indeed all other manufacturing industry, was being reconstructed on the lines of State ownership, the management of Ihagee seemed to be relatively (and remarkably) untouched. Erika Maukshe revealed how the other camera makers wanted to know how Ihagee could make good cameras

so cheaply – it was really Ihagee organization and efficiency, without the layers of communist bureaucracy that did it, coupled with teamwork and independence. Production was running well, and exports were good. Indeed, the GDR, she said, in view of his Russian influences, were treating Max Rockstroh with caution. The firm retained its status as administrators of foreign property. Someone, somewhere, in the joint Soviet and Saxon administrations had heeded the Dutch Military Commissions statement of 22 June 1946. But how long would this last?

Some assurances were given that Ihagee would not be nationalized as a result of the Saxon referendum. Just to push their position a little further, as it were, the Soviet authorities forced an Ihagee-Plebiscite in the autumn of 1946. Ihagee employees were being consulted as to whether the company should be taken over by the Regional government. Like it or not, the result was overwhelming – over 98% of the employees voted against the proposal. This was accepted by both the Russians and the Regional Government. The temporary management arrangements were confirmed; on 28th November 1946 Otto Helfricht became the Works Manager and Trustee. This was fortunate in many ways. Helfricht was a long standing Ihagee man, having served since 1925; he had been a friend of Nüchterlein, and a member of the design team that had created both the Standard and the Kine-Exaktas. There probably couldn't have been a better choice to drive Ihagee forward. He was an experienced engineer with a creative talent.

His first concern was to satisfy the reparation demands, and beyond this, to produce cameras to meet the company's export contracts with the USSR. This was not all. Ihagee exhibited at the Leipzig Spring Fair the next year, with a stand of 120 square feet.

In May 1947 the Minister of Economic Planning of the Saxon Regional Government withdrew the threat of seizure in a remarkably worded letter (reproduced at Appendix iv). But the formal agreement of the Soviets was not yet given, although the Saxony letter clearly stated that they had been given the authority to make this decision. Order No.124 was apparently still in force, it would seem. In fact, it took another fourteen months until, on 1st July 1948, the Minister of the Interior of the Saxon Government conveyed the Soviet decision that the seizure of Ihagee assets was rescinded. (This too is reproduced at Appendix iv.)

The previous trustee-management was confirmed and Helfricht became General Manager. The Company could now operate as such, and hold General Meetings. Thus a new Board was appointed. Indeed, the General Meeting was able to play catch-up. It approved the annual accounts and reports from 1943 to 1946, and confirmed the existing lease of Blasewitzer Straße, at a rent of 12,000 Reichsmarks annually.

But more change was to come, when, on 3rd November 1947 Helfricht resigned as Chairman and Manager, and the Board appointed Willy Teubner and Werner Siegemund to take the company forward. They became joint Chairmen. Teubner seems to have been the last of the old Nüchterlein team. (Hummel refers to him as "the last of the old triumvirate that had included Helfricht and Nüchterlein" but seems to have forgotten the contribution made by Groschupf. There had, of course been four in the team).

(Hummel 1994)

Teubner took over technical direction, whilst Siegemund, who had, hitherto, been the Accounts Director, now took over the general sales direction. Ihagee had not been doing at all badly, so far. The table of Reparations and other production shows this. From 370 Kine-Exaktas in 1945, output had grown to 4500 in 1946 and over 12,000 in 1947. This figure could have been considerably

better had the works not had to close down for three weeks during the severe winter weather of 1946/47, as a result of coal shortages.

New arrangements for trade between East and West had a beneficial effect on Ihagee, and claims under Order No. 52, referred to as the 'Zhukov Credit', for something in excess of 500,000 marks, had enabled the 1947 production levels to be attained without any increase in the number of employees. Methods instituted by Adamek clearly had an effect.

By mid 1948, Siegemund asked to be relieved, and Willy Teubner took over the whole management on his own. This must have been difficult for him, because he had been concentrating on technical developments, and this was where his ambitions were still focused. 1948 also saw the improvement of working conditions, with the opening of a medical centre and a small, but good quality restaurant. At last came the long awaited withdrawal of the threat of seizure under Order No. 124 that had been only partially lifted in May 1947. Now Order No. 64 of the Soviet High Command, in three lines, rescinded that threat.

1949 saw further changes, which were generally helpful to Ihagee. Max Rockstroh came from the supervisory board to join the main board and was appointed Works Director. He was highly educated and spoke several languages. He soon settled into the leadership, familiarizing himself with the important aspects of the business. As a result, Willy Teubner could devote his time entirely to the further development of the products.

What of the cameras produced during this period? Only the Kine-Exakta was in production, and whilst this was basically the continuation of the pre-war model, there were a number of relatively minor amendments to details. Body trim was polished metal, but not chrome. The slow speed mechanism showed a substitution of 1/5th sec on the slow speed dial for the previously used 1/10th sec, and the slow speed dial was lacking a machined groove on its milled edge. The strap eyelets showed a change too. Other minor changes included the omission of the Ihagee logo, which had previously been stamped on the leather at the back of the camera. Some cameras, presumably for export to the West, had 'Made in Germany' stamped on the base leather.

Significant for camera collectors, the models produced for reparations had the name 'Exakta' engraved on the escutcheon. The existence of these 'c' spelling Exaktas caused much mystery in the West until the full facts were revealed, many years later. It enabled Ihagee to keep an eye on where the reparation models eventually went.

In total, during this period, 35,821 cameras were made, of which about 16,920 were supplied for reparations purposes (presumably all spelt with a "c").

Research and development work was proceeding during the later part of this period. Two interesting prototypes are known from 1948; the Exakta Diamant and a Kine-Exakta with TTL metering.

The Exakta Diamant was the result of a suggestion made by a member of the mountain training school at Freiburg in Saxony, that the Exakta should be equipped with a direct vision viewfinder using a fixed built-in mirror system, giving a correctly oriented image. This idea was fine, but in practice the image obtained was marred by the reflection of mirror edges. The prototype subsequently received a roof prism. The viewfinder body and its engraving were totally unconventional and made no reference to Ihagee Dresden on the front plate. There were no flash connections. This camera was not thought suitable for production.



The Exakta Diamant now lives in the Dresden Technical Museum

Exakta Circle Archive

It will be recalled that Karl Nüchterlein had patented a system of TTL (through-the-lens) metering in July 1939 – patent No. 722135. Willy Teubner now wished to progress this concept – hence the prototype of the Kine-Exakta with TTL metering model. A selenium cell fitted on the underside of the ground-glass screen obscured the area available for focusing, and a small roof prism provided the necessary focusing image to be seen. But the whole image could not be seen, and thus an optical direct vision viewfinder was supplied. This of course could cause complications should the camera lens be changed. So the objective lens had to be fixed. The metering system had a pointer in the top plate. This concept was not thought fit for production at this time.

In February 1949 came the Kine-Exakta II. There were revisions to the appearance of the front plate, now in one piece, with 'II' engraved under the name Exakta, and above Ihagee Dresden. The bayonet ring to carry the lens was in black, and the magnifying lens in the viewfinder hood was now adjusted so as to cover the whole field of view. It was protected by a hinged cover on the front of the hood, which still enabled the use of the opening as a direct frame finder. The frame counter was now enclosed, and there was a small hinged lever for disengaging the mechanism for rewinding the film.



Kine-Exakta II, 1949, body no. 653045. Bottom embossed: "Made in Germany". Fitted with 5.8cm f/2 Carl Zeiss Jena Biotar. Note the curious little accessory bridging the flash points on the left, providing a concentric contact (PML)

Accessories available included a Zeiss roof prism, which fitted on top of the focusing hood, a supplementary rewinding knob which made the rewinding key

on the bottom of the camera more comfortable to use, and a screw-on giant release button, of use when wearing gloves. The last two were not actually all that new, because they had been listed in 1939, but nevertheless were probably among the first accessories listed in this post-war era.

A change was made to the Kine-Exakta II in July 1949, when the appearance of the front plate was softened as a result of a rim being impressed on the top edge, and the threaded bush above the flash connection was omitted. The flash unit was now to be fitted to the base of the camera, using a bar and offset accessory shoe; a cable connected the camera flash points to the flash gun.

A prototype was made in 1949 of a Kine-Exakta II with a fixed prismatic viewfinder. The concept of an Exakta camera with a roof prism was very much in the mind of Willy Teubner and his team, but it was not quite ready yet. It is nevertheless interesting to note that Ihagee were introducing very minor changes or revisions during production runs, without waiting for the next model to be announced.

In April 1987 Stein Falchenberg wrote an article in the Exakta Club Collectors' Circle newsletter about this. He said that:

"those who are familiar with the Exakta serial number list will know that there are certain overlaps in numbers between the different models. One striking overlap is the one between the lowest factory stated number for the beginning of the Varex (667000) and the highest known number of the Kine-Exakta II (672046). Some readers may also have discovered that the majority if not all post war cameras up to and including the II have semi detachable waist level finders showing clearly the preparation for interchangeable finders....."

Falchenberg 1987

He goes on to describe how model II, body number 672599, has beneath the front plate, the full provision for removable viewfinders, apart from the actual release button. (See the Varex details in the next section.)

In all there had been nine production models of the Kine-Exakta I and II. Between April 1936 and February 1950, 91,995 were built, including three prototypes. Richard Hummel listed these as:

| ref: | Model | Production dates | Quantity built |
|------|---|------------------|----------------|
| 001 | Kine-Exakta | Apr 36 to Dec 36 | 1400 |
| 002 | Kine-Exakta – 1 st change | Dec 36 to Mar 38 | 13,200 |
| 003 | Kine-Exakta – Export | during 37 | (incl. in 002) |
| 004 | Kine-Exakta – 2 nd change | Mar 38 to Jan 40 | 21,000 |
| 005 | Kine-Exakta – 3 rd change | Feb 40 to Nov 43 | 2,400 |
| 006 | Kine-Exakta – 4 th change | Aug 45 to Feb 49 | 35,821 |
| 007 | Kine-Exakta – reparations | 46 to 48 | (incl. in 006) |
| 008 | Exakta Diamant | 48 | prototype |
| 009 | Kine-Exakta TTL | 48 | prototype |
| 010 | Kine-Exakta II | Feb 49 to Jun 49 | 6100 |
| 011 | Kine-Exakta II – fixed prism | 49 | prototype |
| 012 | Kine-Exakta II – 1 st change | Jul 49 to Feb 50 | 12,074 |

The designers were: Karl Nüchterlein, Otto Helfricht (from May 1945) and Willy Teubner (from November 1947)

Hummel 1994

CHAPTER NINE 1950-1959

EXAKTA VAREX- The legend continues.

1950 – the birth of a system

A great step forward was made in February 1950 with the introduction of the Exakta Varex. (Hummel ref: 013) Aguila and Rouah described this as “a sensational innovation”, and the beginning of the “Mature System”. The viewfinder was interchangeable, with the choice of using a waist-level screen, (as before) for an eye-level pentaprism. Thus arrived the first miniature SLR in the world to have interchangeable viewfinders.



The Exakta Varex. This is actually the version made for the American market, hence it carries the letter “V.” instead of the word “Varex” (see below)

Peter Heimbach

As with other Ihagee models in years gone by, the Exakta was becoming a family of cameras. Not in the sense, for example, of the Ultrix cameras, made in several formats and sizes, but rather in the sense that here was a basic model that had been around for some fourteen years already, and which now, having developed into the Varex, formed the basis for further development for another seventeen years. In all there were to be seventeen models of the Varex, of which three would be prototypes, not to be pursued. From February 1950 to August 1967, 441,820 were to be built.

The Exakta Varex was released to the public at the Leipzig Spring Fair in 1950. An advertising leaflet at the time described the Exakta Varex thus:

“Exakta Varex 24x36 mm, the dual-system camera. A further development of our well-tried small-format models, with the advantaged of single-lens parallex-free reflex construction: viewfinder image and taking image are one and the same! All the features of a top-class camera: convenient in use, elegant shape: latest design of roller-blind shutter with speeds from 1/1000th to 12 sec. Time exposure of each kind (B and T), delayed action release on speeds from 1/1000th to 6 sec. Accessories for all purposes, especially macrophotography and close-ups.

The "dual-system" of the Exakta Varex, something of a ground-breaking innovation! For the first time in a miniature-format camera two separate systems for observing and composing the picture:

1. the well known waist-level viewfinder hood, for viewing from above; and
2. a prismatic viewfinder for direct vision of the subject.

The Exakta Varex is to be held at eye-level and the viewfinder image, always the right way round, is seen in the direction of the subject. Viewfinder hood and prismatic viewfinder are interchangeable and whichever is best suited to the application can be put to use. There is no longer any conflict between the reflex camera and the camera with a direct-vision viewfinder. The Exakta Varex utilizes both systems, each when it is most appropriate.

The viewfinder hood is for exposures with the camera below eye-level (people, animals, children, plants, the tiniest subjects: macro- or close-ups), and for work on the tripod outside or in the studio (copying, still-life, portraiture, photography at the microscope etc.). The bright upright image can be fully and very easily seen with both eyes.

The prismatic viewfinder is for unrepeatable exposures (snapshots, sport reporting, stage and music-hall pictures, etc.). Camera at eye level. Viewfinder image always the right way round (also true in portrait format). Viewfinder image and exposure image are the same. Image in the finder remains true even if the lens is moved: this makes panning possible.

A further innovation with the Exakta Varex – the double flash system.

1. On one side of the front, the well known flashbulb connection (V)
2. On the other side of the front, the new connections for electronic flash (E)

With this the most modern flash units (eg Blaupunkt, Mannesmann, etc) are synchronized with the Exakta Varex's shutter. That is something for the reporter and the expert! Flash duration 1/5000th sec. Stunning results with the sharpest reproduction even of the fastest motion."

But that was not all! The same leaflet went on to introduce the Exa Varex (Hummel 038). A new SLR camera, described as the little sister to the Exakta Varex. The text continues

"Exa Varex 24x36 mm, the affordable miniature-format reflex. Not every purchaser can fully utilize all the features of the Exakta Varex: he wants a simpler, but not less reliable, SLR at a low price.

Therefore we offer our new Exa Varex for 24x36 format. Basic construction just like its sister model: single-lens reflex, without parallax. No difference between viewfinder image and exposure frame. Dual-system camera with interchangeable viewfinder hood, which can be replaced by a prismatic viewfinder (see the description of the Exakta Varex.). Usable for the same purposes as the Exakta Varex: all accessories usable on both models (also lenses up to 12cm focal length).

Close-ups and photomicrography without difficulty. Special feature: diecast body, with good leather trim. Metal parts enameled or chrome plated. Precision shutter with operating lever for time exposures (B) and speeds of 1/25, 1/50, 1/100 and 1/250. Coupled shutter, film transport and mirror return, so that double exposures are never possible. Automatic counter for up to 36 exposures. Interchangeable lenses with bayonet fitting.

Film rewind, able to roll up exposed film into any normal cassette. Flash connections. Viewfinder hood (with two strong magnifying glasses), also usable as sports viewfinder.

The basic (Exa) equipment is shown fitted with a Trioplan 5cm f/2.9 lens."

The shutter was, in fact totally different from the Exakta shutter. Whereas the Exakta had a conventional horizontally running fabric focal plane shutter, the Exa, (not totally different from the concept of the old Paff shutter), utilized the rising mirror as the opening blind, followed by a plate, attached to the mirror, which followed it at a suitable timing. It was remarkably quiet in operation. Michael Spencer has helpfully described it thus:

"...a rotating 45° sector of a cylinder carrying the mirror. The bottom edge of the mirror acted as one blade of the shutter, and a capping blade followed after a delay set by the speed selector, moving up the curved frame of the sector until arrested by the rear of the edge of the mirror itself".

Exakta Times Editor

Relatively simple in construction, the speeds were simple too! They were set by a lever on the top plate, operating like the gear-shift on an automatic car. There was disagreement at Ihagee about the practicality of the 1/250th sec speed, and Richard Hummel is believed to have fallen out seriously with Willy Teubner about this. He left Ihagee and went to work with Feinmess. After the first 100 of the Exa Varex (039) were built, (which are highly prized by collectors today), the suffix Varex was quietly dropped. 1150 of these non-Varex Exas were built between February and August 1951 (040)

The fastest shutter speed of 1/250th sec had proved to be unreliable (Hummel was vindicated!) and was replaced by 1/150th sec in August 1951, (041). 11,817 of this model were built by February 1952.



Exa 1950

(PML)

Minor changes were always ongoing at Ihagee. In November 1950 the body casting of the Exakta Varex was revised to incorporate the film guide, so that it was no longer a separate component fixed in place with screws. (Hummel ref:

041) This modification did not affect the distance between the lens mount and the film, which remained at 44.70mm.

Also in 1950, Ihagee found it necessary to amend the name of the Exakta Varex for sale in the United States. Those Exakta Varex models sold in the US were therefore known as "Exakta V.". (Hummel 015)

It was in 1950 too, that an efficient dealership network was set up. West Germany was a particular target, sales offices being set up in several areas. Pre-war dealerships in Stuttgart, (Erich Giebe), and Minden (Hugo Kannegiesser) were still active, and now augmented by Herbert Kohler, who had a main dealership in Bad Kissingen. Kohler was more than a dealer; he had been involved with Ihagee since 1946, and further to trading in Ihagee products, he also opened channels for the acquisition of urgently needed machine parts for the factory reconstruction. He has recorded his views that the Ihagee sales organization was well managed, indeed one of the best in the photographic industry; Ihagee made sure that prewar quality standards were maintained. So far as status was concerned, Kohler put Ihagee in third position after Leitz and Contax – the top model from Ihagee never pulled the top prices that the other two achieved.

West Berlin was also an area for export; beside the trading association with the firm of Dr. Ziegler, a connection was made with Heinrich Mandermann. This was very significant, because Exaktas might not have been produced at all had Mandermann not been able to obtain supplies of steel springs for the slow speed mechanism of the camera. For Kohler and Mandermann, these collaborations with Ihagee were the beginning of a forty-year association with reflex cameras from Dresden. Indeed, Mandermann has revealed how he started selling Exaktas in the early 1950s "under the counter" at Polyfoto, on the Kurfurstendamm in Berlin, having obtained a supply from Dr. Zeigler.

Trading associations were set up for export to other European countries and overseas. Notable in this "dramatis personae" are the Dutch agency of Albert Heynderickx, the Italian Carl Weiss, the American Dr. Max Wirgin and, slightly later, Sir Kenneth Corfield in Britain.

Max Rockstroh later claimed to have created the names Varex and Exa himself, and that he had agreed with Dr. Wirgin that as the name Varex was already registered in the US by Argus Inc. of Illinois, (used by them as the name of a simple lens), it was unavailable to Ihagee, and thus the use of V. and VX came about.

Sir Kenneth has recounted how his function as an importer of Ihagee products extended far beyond that role, and his own activities as a camera manufacturer in Britain (Periflex) led to technical cooperation between Ihagee and Corfield. The international agents met with Ihagee twice a year in Leipzig, and really, it was all like a big family, who knew and understood each other, whether one spoke of the workers in the plant, or the dealers. Special permits were necessary for them to visit Dresden, but this was always the highlight of the visit.

1951

Two events took place in 1951 which Hummel saw as marking a new epoch in the development of Ihagee, and possibly the end of the aftermath of the war.

*The administration of enterprises in foreign ownership was reorganized,

*pre-war technology for chromium plating the entire camera body was reinstated.

Matters of Company ownership since 1945 had always been difficult. (They were complicated enough before!). The Trustees were involved only with the foreign shareholding in Ihagee, so it follows that another layer of management was needed to run the company. The effect of the administrative reforms was that the Trusteeship was transferred on 1st March 1951 to OPTIK VVB in Jena, who were involved in the administration of fine machining and optical equipment. The Director of that institution was now responsible for the firm. But for whatever reason – a poisoned chalice comes to mind? – he promptly delegated the responsibility back to Max Rockstroh as Director of Ihagee Kamerawerk AG. This appears even stranger in the light of the letter from the Ministry of Finance, which stated:

“The take-over of your firm by the management of OPTIK VVB changes nothing in your structure of itself. You remain a private company. With the changed administration, you will be concerned in production planning but not in financial planning. The (new) place of administration is fully responsible for the general management and with it for the financial management.” Hummel 1994

One thing the author has always respected is the way in which high level officialdom can express itself so clearly!. However, with these changes, the company now became known as Ihagee Kamerawerk AG iV – in Vertretung. (Representatives of Ihagee Kamerawerk AG). Ihagee seemed to be in no hurry to use this suffix in their publications, and several years elapsed before they did so.

Richard Hummel wrote much later that the immediate post-war period from 1945 to 1951 had been “thoroughly successful”. The numbers of employees had remained around the 410-420 mark for six years, and yet the annual production continued to grow steadily. About 100,000 cameras were made in those six years, and two thirds of them were exported.

Changes to the Exakta Varex continued apace. From March 1951 the camera back, which hitherto had been removable, now became a hinged component with a release catch at the left hand end. The chamber at the take-up end was enlarged slightly, so that a second cassette could be utilized if desired. This “cassette to cassette” concept made it possible to omit the rewinding of a film back into the original cassette. Minor changes were effected, which need not be listed here, except to note that the body was now, once again, chromium plated overall. In the early post war years, supplies of chromium were unobtainable, but now the appearance of the Exakta Varex improved considerably. (Hummel 016)

More accessories were provided. The ground glass magnifier/focusing screen was available with a clear spot for both viewing systems, but not as readily replaceable as they would become in later years. A double bayonet ring (designated “D”) could be placed between camera body and lens for close-up work.

The development of new Ihagee products featured largely, if not successfully, in 1951. Willy Teubner, as Technical Director, was responsible for this. At the Leipzig Spring Fair in 1951, he re-introduced the pre-war Exakta 6x6. Richard Hummel thought that:

“this was a daring step, because in all account sheets up to 1945, reserves had been incorporated to cover guarantee payments in respect of this model. Unreliability of almost all functions was the reason for this. Nevertheless Teubner persisted in a new release of this camera, with the following major alterations from the pre-war model:

- *interchangeable viewfinder, because a prism-unit was planned for later on;
- *additional synchronization for electronic flash
- *changed front plate, looking overall like the front plate of the Exakta Varex
- *additional strap lugs at the sides of the body
- *altered direction of motion of the wind-on lever"

Hummel 1994

Production started readily, because parts were still available from the 1939 model, (retrieved from the Schandauer Straße basement, perhaps, or even stored elsewhere?), and some new parts were made. However, series production did not proceed; the film transport was still unreliable. Karl Nüchterlein was still right, several years later! Indeed, the faults here and with other functions could not be rectified, and after about 300 cameras had been produced, the Exakta 6x6 was withdrawn.

1951 to 1953

In June 1951 the Exakta Varex VX appeared. (Hummel 017) The name on models for special export to the US became Exakta VX. Why VX? Richard Hummel opined that the suffix should correctly have been MX because on this model the designation of the flash synchronization systems was changed to M and X. The suffix VX was chosen, he thought, however, because those letters could also be seen as an abbreviation of the word "Varex". However, the claim of Max Rockstroh regarding his agreement with Dr. Wirgin must not be forgotten.



Exakta Varex VX 1953 with Tessar preset spring diaphragm

(PML)

Other revisions at this stage were, as alluded above, the flash synchronization, which became M and X; the hinged back could now be removed by the unscrewing of the hinge pin; the speed dial now had the engraving "T" instead of "Z" (ie. "Time" for long exposures instead of the German "Zeit" used before).

This camera was to remain in production until June 1953, and 40,117 were built. From June 1952, a Zeiss magnifying ground glass screen with rangefinder wedges could be used in the prism unit.

As recorded in 1937, the Service Department at Ihagee were available for modifications to cameras, and from July 1951 they were able to revise the flash synchronization on Kine-Exaktas and Kine-Exakta II models to "M" and "X", including engraving this on the front plates. Just a little more confusion for collectors!

In February 1952 the second change then took place to the Exa, when the synchronization was updated to "M" and "X" instead of "V" and "E". (042), of which 6980 were built. This was followed in May by the third change, when the lens mounting ring on the body, which had been black enameled, was now chrome plated. For the first time, strap lugs were added. (043). 13,852 of these were built.

Also in 1952, a derelict building in the front yard was rebuilt, and an employees' Social Club was set up. It contained sufficient space for the Publicity department to be housed there too, as was a small laboratory. This released space in the main factory for production, and the work force grew to over 500 by the end of the year. There were grand plans for the total rebuilding of the factory, but until funds became available, additional premises close by at 60 Blasewitzer Straße were obtained to house the toolmaking and small-machined-part manufacturing departments. Even more production space was now available in the main factory.

At the end of the year, a special Exa 18 x 24 was issued in a small run. This was a half frame model, giving portrait format pictures 18 x 24mm. (044). The film transport gearing was altered to accommodate this, and a mask was fitted inside the body to amend the viewfinder image. Oddly, the film counter was not altered. 500 were built, as part of the 043 run.

More accessories appeared in March 1953 - the "Magnear" lens-viewfinder unit and the "Stereoflex" stereo-unit. Both involved the use of the socket housing the pentaprism or the hooded viewfinder. The Magnear was a small, diecast block housing a focusing screen on the bottom, which fitted into place like the pentaprism, whilst an Exakta bayonet lens mount on the top enabled either a camera lens or a focusing loupe (which became available later), to be used for critical focusing. Stereoflex fitted similarly; but through the use of internal prisms, viewing was effected via two eyepieces of a stereo image which was two halves of the standard 24x36mm picture. This was obtained by a beam splitting device fitted to the front of the taking lens. Although Magnear is still available fairly easily at camera fairs, at the time of writing (2008), Stereoflex is both rare and expensive. More details of these and other accessories are given in appendix iii

An unusual model of the Exakta Varex VX was made between 1951 and 1953. This had a double shutter release (018). Corresponding to 016 and 017, this camera had a right hand release fitted low down as well as the conventional left hand one. This was a special facility for war-wounded with damaged hands. Hummel reckons that about 100 might have been made. (This is included in the figure of 40,117 given above).

1953 to 1955

The first change to the Exakta Varex VX came in July 1953, and 38,710 of this model (019) were made up to June 1955. There were revisions to the shutter release, which had a swivelling guard to prevent accidental release; a push-peg to

disconnect the film transport and shutter wind when rewinding the film; a new type of frame counter with an adjusting wheel appeared; the lens mount now had an external bayonet in addition to the existing internal bayonet, which was to facilitate the use of long focus lenses with greater barrel diameter; the shape of the left hand bayonet lug on the inner bayonet was revised to avoid vignetting when the lens in use was mounted on the outer bayonet; and a spring inside the cassette chamber enabled the cassette to be held in place more firmly.

The Exa had its fourth change in September 1953 when the same swiveling guard was added to the shutter release, and two concentric synch. points were fitted, one each side of the lens, with black plastic surrounds.

Willy Teubner was still fretting about the 6x6cm SLR format and the unsuccessful effort in 1951. In 1953 he had introduced his solution, with a totally new Exakta 6x6, at the Leipzig Fair. A pre-production run had been used late in 1952 to find out the reaction of a selection of Ihagee dealers, and their response was generally favourable.



Exakta 6x6 1954. body no. 601072
with Tessar f2.8 80mm lens

(PML)

The design was attractive, and now the film moved vertically instead of horizontally. The magazine back was removable, in theory to accept another loaded with different film. But there was no dark slide to assist this. The reflex mirror was now in two parts, the upper one operating conventionally, whilst the lower one folded down into the base of the camera body, thus giving clearance for different lens constructions. The waist level finder was removable, so as to allow a

prism finder to be used (when available). The rubberized fabric focal plane shutter operated vertically, but the mechanism seemed to be pure Exakta (12 sec. to 1/1000th or 6sec to 1/1000th with delayed action). Synchronisation was variable, with an adjustment of the contacts to give differing delays for various flash units. Wind-on was now effected through a side mounted knob with finger grips, which transported the film as well as cocking the shutter.

The front plate was, again, pure Exakta in appearance, with Exakta engraved in the same ribbon script as the Exakta Varex, and Ihagee Dresden just above the lens mount. 66 was engraved either side of the viewfinder catch. The pre-production Exakta 6x6 omitted this latter engraving, and there were detail differences in the controls. The bayonet lens mount was of a large diameter (60mm). The pre-war model had been smaller than this (51mm), and an adaptor was available to facilitate the use of lenses made for the earlier model. On the 80mm f/2.8 Tessar fitted to my model, the smaller bayonet is supplied, augmented by an adapter which is fixed by two screws. This could therefore be removed to allow this lens to be fitted to the pre-war camera.

Production, originally planned for the spring of 1953 was regularly delayed. A problem existed in the film transport mechanism, and despite adjustments, only a hundred or so had been produced by the end of the year. Although 10,000 had been programmed for 1954, in the event, only 2,500 were made before production was halted. Hummel refers to the unreliability of the film transport and of all other functions, which could not be systematically cured. I would only add that in the example in my collection, (which I have used with excellent results), the flaw in the film transport mechanism seems to be the splined clutch, connecting body and film magazine. The springs, pressing the two parts of the clutch together, appear too weak, and thus tend to allow the clutch to slip rather easily, resulting in overlapping frames on the film.

The Exakta 66 is a beautiful instrument, capable of fine results, but it is a heavy camera to handle at 1.3 kilos. It is very sought after by collectors, and one can only imagine how rare the consultation pre-production model might be!

Richard Hummel has recounted the aftermath of the collapse of the Exakta 6x6:

“Unpleasant tensions between the highly-trained mechanics and the works management flared up. The mechanics should be forgiven. For an independent opinion on the technical circumstances and the manufacturability of the 66, the then Institute for Electrical and Mechanical Precision Engineering of the Dresden Technical College was commissioned as an expert witness. Their report came in February 1955: “Only through a fundamental change in the whole construction can a workable level of reliability of all functions be attained” was the unanimous view. Production of the Exakta 6x6 was therefore no longer undertaken”

Hummel 1994

There were more problems to come. The State decreed that Exa production should be transferred to VEB Rheinmetall at Sommerda. Space was available there, and despite objections from management, equipment was moved there, and training of the Rheinmetall workforce commenced in the autumn of 1953. The motive behind the move was to enable the large home demand to be met.

The State also decreed that production of the Exakta 6x6 should similarly be moved to Sommerda.

Thus it followed that Exa production started in Sommerda in 1954 in what had previously been a typewriter factory. Outwardly there was no question that this was not an Ihagee camera. Built like an Exa, it nevertheless carried the name

System Exa on the front plate, followed by Rheinmetall Sommerda. VEB was engraved on the viewfinder catch (046):



1954 System Exa, made by Rheinmetall at Sommerda.

(PML)

This production under licence only lasted a few months. Quality control was clearly lacking, and what had been a satisfactory camera when produced in Dresden had become totally lacking in reliability when produced by Rheinmetall. Some 8,000 were made, and many of those are believed to have been returned to Dresden to be rectified. By April 1956 production of the Exa had resumed in Dresden.

But what of the Exakta 6x6? Although the story of the Sommerda System Exa is well known, the intended move of Exakta 6x6 production is not documented, so far as the author is aware. Certainly the cameras produced bore the names 'Exakta' and 'Ihagee Dresden', and there has been no reference to any of them being made other than by Ihagee. The experience of the System Exa can only make one assume that if the Exakta 6x6 had been made by Rheinmetall, its problems could only have been worse! Maybe it died before the move could be made.

Naturally, all this interference by the State put greater and greater pressure on the Ihagee management, until in November 1953 Max Rockstroh decided that he had had enough, and resigned. He had led the company with distinction since June 1949, and Ihagee had enjoyed success – at least, until the System Exa and Exakta 6x6 episodes. Ken Corfield later told of Rockstroh's flight to West Berlin on 9th November 1953 to avoid arrest by the Communist Financial Control Commission. He died in 2001 at the age of 93 in a village in the Black Forest. Rudolf Kramer succeeded him; coming from the Filmosto works. A sign of the times, perhaps, in Communist East Germany – Kramer became Commissar-Director.

Now there were financial problems looming. Walter Kretschmar had been appointed as Works Manager and Administrator in February 1954, and might possibly have become a scapegoat, accountable for losses, but Willy Teubner was shortly to retire. Kretschmar kept his job. From October 1954, Heinz Lesser was leading the design team, until September 1955, when Richard Hummel assumed the role.



This was the Blasewitzer Straße building in 1989. The large Ihagee signs that adorned it are gone – but is there still a tiny reminder?

(PML)



The last visible sign in 1989 was a small plate, saying "Ihagee Kamerwerk AG i Verw"

(PML)

Other things were happening at Ihagee, as well. The final stage in the reconstruction of the Blasewitzer Straße building began at the end of 1954. It was finished, eventually in 1958. When it was finished, there was space for 800 production workers.

On the technical side, 1953 saw another prototype produced. Utilising the same principle of variable flash synchronization that were used on the Exakta 6x6, a similar dial was fitted to the front of an Exakta Varex VX. This resulted in

only one flash socket being required. For whatever reason, this was not followed up, and only one such camera was made. (020).

In 1955 the second change to the Exakta Varex VX was made (021). The two double flash contacts that had featured on the Exakta since 1936 were now replaced by modern concentric contacts in chrome surrounds – one each side of the lens, for M and X synchronization (rather later than the Exa, which also had, of course, black surrounds!). The flap guarding the shutter release was revised in shape, so that use of a cable release, which was screwed into the release button, necessitated the cover being raised. Previously there was a cut-out which allowed the use of a cable release without uncovering the button.

This model was produced from June 1955 to September 1956, and 37,800 were built.

1956 to 1960

April 1956 saw Exa production returned to Dresden. The fifth change to the Exa (047) was similar to System Exa and was the model produced before the move. The flash sockets now had chromed surrounds, and the front plate was engraved with "F" and "X". The swiveling cover for the shutter release now protected the cable release socket in the centre of the release button, as with the Exakta Varex VX above. The back was now removable, via a removable hinge pin, and a guide in the cassette chamber stabilized the cassette in use. This version of the Exa lasted until May 1959, and 94,345 were built.

The Exakta Varex VX underwent its third change in May 1956 (022). Apart from a change in the engraving of the face plate – the significant revision was the new and quiet slow-speed escapement. The slow-speed knob had a new serrated scalloped shape, and the film reminder under this was now a flat plate. An additional "F" synch point was added. The top of the pentaprism viewfinder now had leather panels inset. This model continued in production until December, and 7737 were built.

The next revision apparently justified a change in the model name, and the Exakta Varex IIa (023) appeared at the end of 1956. There were no changes other than the name! Those destined for the American market were engraved Exakta IIa. 27,790 in total were built by November 1957, before the first change was made, revising the shutter speeds by omitting the 1/150th sec setting. (024). 17,395 were produced until May 1958, when another significant change was made.

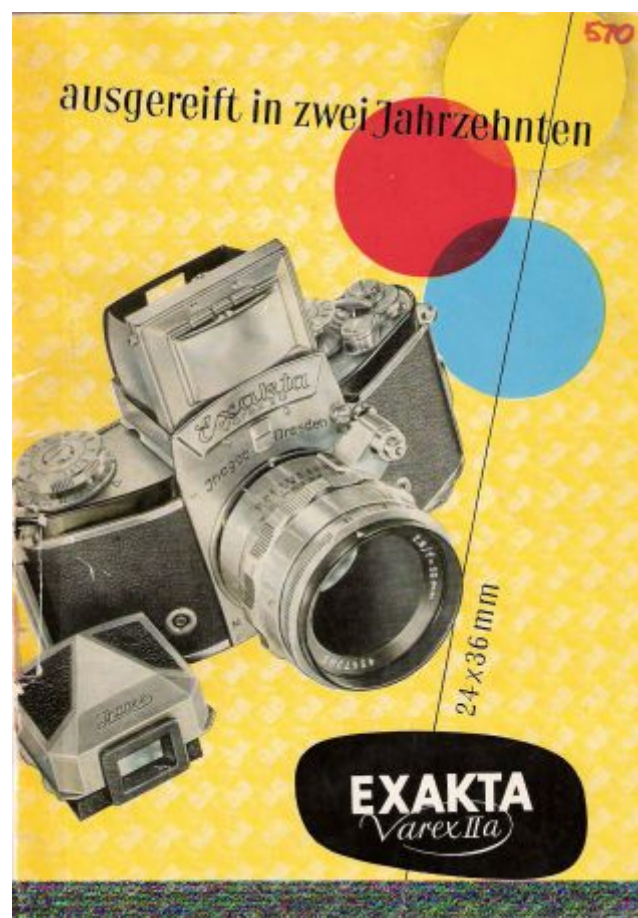
This was a cosmetic alteration only, and the engravings on the front plate Exakta Varex IIa were embossed from the rear instead of being engraved. The embossed lettering, where it stood proud of the front plate was polished (025). The matching pentaprism, still with its two leather panels, now had the name "lhagee" embossed and polished, to the rear of the top surface, just above the eyepiece. Those made for the American market had slight variations to the front plate, where "Exakta VX IIa" was embossed, or even "VX IIa" or "IIa" engraved below the embossed "Exakta".

Opinions have been expressed by camera collectors ever since this model was introduced, that this was the best Exakta camera ever made. The mechanism was smooth and silky, relatively quiet and the camera was good looking. The results were outstanding. What more could the user of an Exakta ask for? This desirable model remained in production until September 1960, and 71,140 were made.



Exakta Varex IIa with the embossed name plate.
The best ever?

(PML



This 1957 brochure – “Evolution over two decades”
– contained 36 colour pages and showed the use of
the Exakta in many fields of photography.

Ihagee

Whilst all these wonderful developments were taking place in the field of camera manufacture, the advertising department was producing some matching materials. Leaflets were produced in several languages advertising each model of camera, for distribution through the dealer networks to the actual shops where the cameras and accessories were sold. Some were more than just leaflets; in 1957 *Ausgereift in zwei Jahrzehnten* (Evolution over two decades) – see above, was a 36 page colour brochure showing many of the applications of the Exakta in different fields of photography. Others followed at regular intervals – *Assured success for everyman*, whilst only 24 pages, similarly covered the development of the Exakta, in many language editions, through to the last version of the Varex IIa.

More specialized brochures were also produced over the years. *Micro and Macro pictures most easily and exactly with the Kine-Exakta* first appeared as a 4 page leaflet in 1948 in a German edition, and grew at regular intervals until its final manifestation as *Macrophotography, Photomicrography, Stereophotography*, a 36 page colour booklet, appearing in many languages and editions until the late 1960s.

There can be little doubt that much of the work can be ascribed to Werner Wurst. Further editions of his master work *Exakta Kleinbild Fotografie* continued to appear (12 editions in all, up to 1974), together with other titles such as *Exakta-Tips*, and *Foto-Exkursionen mit der Exa* (again in many editions). But there were many other authors, too, who wrote about specialized applications. Dr. Werner Pietsch wrote *Die Praxis der Stereo-Nahaufnahmen* dealing with stereo close up photography; Georg Fiedler wrote *Exakta Makro- und Mikrofotografie*. And many, many other authors can be found. This author bought a copy of the Georg Fiedler book as recently as 2006 in Dresden. It has to be said that such a profusion of literature on Ihagee and Exakta cameras has been produced that it becomes a study in itself, and even today, the Exakta Circle is continually updating its Bibliography.

Another outstanding Ihagee publication that should be mentioned is a series of booklets in the late 1950s and early 1960s, by various authors under the generic title *Mit der Exakta Varex.....* Each was of 24 pages in A5 format, presented in buff card covers, with an applied colour photograph on the front. Some appeared as a set in a packet, similar to the booklet covers. Each author dealt with a specific theme such as:.....*unter Fischen und Fallschirmspringern* (...with the fish and the parachute jumpers); “....*in der Arktis*” (...in the Arctic);*in der Kleintierwelt* (...in the world of small beasts); and several others. They were illustrated in both colour and black and white, and details of the Exakta equipment used was given.

Indeed, one booklet from 1958 entitled*durch Mato Grosso zum Amazonas* (“....across the Mato Grosso and the Amazon”) records a 14 month 3600km journey covering all kinds of climatic conditions and how the two Exaktas with their different lenses and other accessories, as well as the Agfa Wolfen film material, withstood it all. One of the cameras was later, without having been overhauled, exhibited at the Leipzig Fair.

1958 saw another attack on the independence of Ihagee. The success of this independent and foreign owned company had long been an irritant to the Communist State, to put it mildly, and now all the export departments of all the Dresden camera factories were to be centrally controlled henceforth by DEXI – a new German Export and Import Company. Ihagee’s contacts with their foreign agents and dealers were to be severely curtailed, and all export plans would in future be created by Dexi.

Richard Hummel recounts more of the difficulties that beset Ihagee in this period:

"The year 1958 saw yet another change in works management. Disputes and personal animosities increasingly poisoned management activity, although no-one took responsibility for any mistakes. Kretzschmar resigned in January (1958); his replacement was Erwin Lorenz, who in turn only lasted until January 1961".

(What Hummel did not reveal was that Kretzschmar, like Max Rockstroh before him, escaped to West Berlin, with his family. It has been hinted that assistance might have been given by the West Berlin Ihagee agents – this was a year or so before the Berlin Wall was erected).

"In spite of all these changes in management, the work's production rates remained solidly stable. Numbers were kept well up. In 1959 almost 73,000 cameras were built, of which about 70% went for export.

Uncertainty about the continued existence of the firm grew to such an extent that the Annual General Meeting of the Ihagee shareholders in 1959 agreed to transfer the registered office of the company to Frankfurt-am-Main. On 14th January 1960 the Ihagee Camera Company Ltd of Frankfurt-am-Main was recorded in the West German Trade Register. This ushered in a series of time consuming and expensive legal actions on both sides of the border. The reports were copious, but the actions had only limited influence on the history of Ihagee in Dresden.

In connection with this transfer, it should be noted that the Dresden management had previously proposed to move the production department to West Germany as long ago as 1949 or 1950. The proposal then got no support however, from the Ihagee shareholders. Their rejection could be summed up in the slogan: "Cameras can be exported, but not people". Certainly at that time there was a general belief that foreign relations would soon clear up. Only after 1960 were there two Ihagee Camera Companies, which respected each other for better or worse. The Dresden factory continued under the title of Ihagee Kamerawerk AG iV." (Hummel 1994)

Similar revisions to the 1958 changes to the Exakta Varex IIa were made to the Exa in June 1959, when the embossed and polished lettering appeared on the front plate (048). The prism with embossed 'Ihagee' was supplied for this model too. There is alleged to have been a safety lock for the shutter, fitted internally, to prevent accidental firing of the shutter if the camera was dropped or knocked. 38,330 of this model were built.



The Exa with the embossed nameplate

PML

CHAPTER TEN 1960-1987

The last years.

1960 to mid 1967

An interesting Exa prototype was produced in 1960. The Exi-automatik (049) was fitted with a Meritar f2.9/50mm lens, which offered semi-automatic exposure. A Metrawatt exposure meter was fitted to the lens, and the lens aperture ring was adjusted to the value shown by a needle indicating the correct exposure. The camera body had a shutter with a fixed speed of 1/50th sec. This camera remained a prototype only.

A new range of Exa cameras was coming. Hummel thinks that the genesis of the new Exa was the great difference in performance between the Exakta Varex and the current Exa. Each of them had established its own market, but there was a need for something in the middle ground for the sophisticated amateur. Thus the Exa II, (063) designed by Gunter Fischer, had been presented at the Leipzig Autumn Fair in 1959. It was a modest amateur camera, with a fixed prism viewfinder with magnifying focusing screen and a vertically operating fabric focal plane shutter, speeded from ½ sec to 1/250th sec. It could accept all the lenses available for the Exakta Varex. The front plate was rectangular, and the name Exa II was engraved on the front of the prism housing. There were disagreements in the factory regarding the dangers of proliferation of models and parts, but the trade was waiting for a new camera. Production began in August 1960, and 88,708 were made.



Exa II

PML

A remarkable bit of East – West cooperation took place around this time. The import agent for Ihagee in Great Britain was Kenneth (later Sir Kenneth) Corfield. He has recounted, to members of the Exakta Circle, details of his visits to Dresden, and specifically to Ihagee. It must be remembered that he was himself a distinguished camera manufacturer, producing the Periflex 35mm SLR. He had technical discussions with Ihagee about the construction and tuning (for want of a better word) of the operation of focal plane shutters with rubberized

fabric blinds. The general principle at that time, as exemplified in miniature cameras such as Leica, Exakta and other similar shutters, was for the release of the first shutter blind to trigger the release of the second blind by the rotation of its spindle and a catch set thereon, after a suitable and variable delay (thus giving the specified exposure). Whilst this sounds complicated, the mechanism was relatively simple, and the movement was visible when the speed setting dial revolved as the shutter was released. There was an inherent problem, however, and this was that the free movement of the first blind lost a little of its momentum through releasing the second, and thus was slightly retarded, resulting, in the worst case, in uneven exposure (taper) along the direction of the shutter.

The Corfield Periflex design had addressed this issue, and the chosen solution had been to relieve the first blind of this secondary task, by the expedient of releasing both blinds simultaneously, but using a clockwork escapement to delay the movement of the second blind. Ken Corfield revealed this system to the Ihagee designers, who thereafter, with Ken's blessing, used something similar in the Exa II series.

In September 1960 the third change to the Exakta Varex IIa took place (026). Gone was the traditional Exakta front plate and the curved name. In its place was a front plate of a different shape, flat at the top, and with shoulders at top plate level. Ihagee Dresden, which had been engraved in a curve above the lens mount, either side of the viewfinder release button, now appeared in a straight line either side of a redesigned button. Above this a black rectangular nameplate appeared, edged in chrome, with the name EXAKTA in upper case sans serif lettering. Below Ihagee Dresden in small lettering was engraved Varex IIa. 65,620 of this model were built.



The 1960 third version of the Exakta Varex IIa

PML

The waist level viewfinder hood changed its shape too, with a much simplified closure mechanism. The curved chrome plates at front, sides and rear were replaced by a leather covered front panel, with a slight vertical curve, and a rear panel which, interlinked with the front, closed in a single movement with the front one. It was certainly much simpler in operation, but perhaps lacked the traditional Exakta appearance. A corresponding change was introduced to the top of the pentaprism, with a straight line which matched the shape of the camera

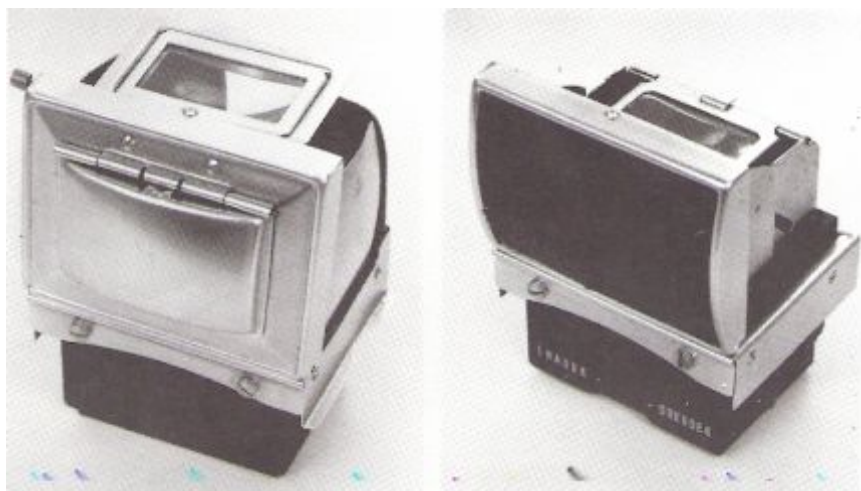
nameplate. Irritation is frequently caused to purist collectors when the wrong prism is fitted to the camera! It works perfectly satisfactorily, but looks quite wrong!



The two shapes of pentaprism. The left hand version, here fitted with a removable accessory shoe, was designed to fit the cameras with the new rectangular name plate – both Exakta and Exa.

PML

Also in September 1960 the Exa Model 1961 (050) appeared. Basically it was the same as the previous Exa, (048) but the front plate was revised into a new shape, with the previously curved top replaced by a rectangular nameplate, echoing the Exakta Varex IIa (026) described above. The nameplate was black, edged in chrome, and the name Exa appeared in white flowing script. 58,450 were made. The waist level viewfinder hood was the same as that fitted to the above Exakta Varex IIa, matching the shape of the nameplate.



Out with the traditional Exakta finder hood, and in with the new.

PML

In 1961 the cover of this waist level finder was *either* decorated with a black leather panel, as below, or with black and white stripes – the so called Eloxal

shield. The prism available at this time also had *either* three leather insets or an Eloxal shield in the centre panel.



The 1961 Exa, with matching rectangular name plate. This one has a leather panel on the viewfinder hood, and is fitted with a Ludwig Meritar f2.8/50mm – perhaps not the best lens then available!

PML

The viewfinder and the prism with the striped metal tops became known as “Jubilee” finders and prisms. The justification for this is not clear; Aguila and Rouah have ascribed it to the 25th anniversary of the Kine-Exakta. This may well be so, but no trace of this has been found in Ihagee literature at the time of writing. Hummel uses the word “Jubilee” once, without explanation.

“In spite of the lawsuits now getting under way, the development of the factory continued to show a positive aspect. Production numbers climbed further, and..... exports of Dresden Ihagee products remained stable. The relatively frequent changes of Works Manager, however, were not good for the firm. Horst Eisenkratzen was appointed in August 1961, Karl Kratzenmeier in August 1962 and Horst Burgardt in February 1964. All these people were naturally conversant with the administration of the works, but the structure of the firm, its workers and middle grades, as well as its masters, were always the assurance of quality and growth of production”.

(Hummel 1994)

Behind the scenes, Ihagee Dresden must have been getting more than a little worried about possible outcomes from the lawsuits. What would happen if the rights to the names of Ihagee, Exakta and Exa (inter alia) should be given to The Ihagee Camera Company in West Germany?

The “great plan” that emerged was to found a new company that would produce redesigned (and renamed) Exaktas and Exas. The Company that was being founded was to be known as Elbe-Kamera-GmbH, and the alternative Exakta, based upon the Exakta Varex IIa, and having a totally restyled and altered external appearance, was the Elbina Super (027). This camera had much of the internal mechanisms of the Exakta Varex IIa, and thus retained the trapezoidal shape, and controls. But at first glance, it was something else. The renaming of the Exa was rather more blatant. The Elbina I and II were openly

based upon the redesigned Exas about to hit the market. Elbina I (052) was the same as the new Exa I (051), with a redesigned body shape, and the Elbina II (065) was identical to the new Exa II (063) with the fitted pentaprism. All three Elbina cameras were prototypes only, although an instruction manual was issued for the Elbina Super, and some marketing leaflets were produced, dated 1961, somewhat prematurely, in the event! Presumably these were rapidly suppressed. Hummel thinks that the legal actions must have constrained both sides sufficiently to prevent the concept being taken any further. Consultation with dealers had not been encouraging.



Elbina Super – the works were similar, the outside different! Elbe Kamera



Elbina I – The Exa I in reality!

Elbe Kamera

It will be clear from the above that work had been proceeding on the Exa at this time, and the second generation of Exas was about to appear. Exa I (051) was marketed from September 1962. The body shape retained its basic trapezoidal form, but was more curvaceous. The chrome front plate was shield shaped. The chromed top plate had a skirt which overlapped the body, and the back, together with the bottom plate was completely removable. The shutter was unchanged, but speeds were now set by a disc under the rewind knob on the left of the top plate. A film reminder appeared in the top of the knob. Wind-on was still by knob, on the right, and the frame counter was set in the top of this knob. But it was still basically the same camera as the previous models. 37,960 were made.

In May 1963 the Exa IIa appeared (064). As with the Exa I (051) above, the new, more curvaceous body shape was used, with removable back and bottom plate. The front plate was now more of a shield shape. The camera name was engraved on the front of the prism housing. The focusing screen was now of the

fresnel variety, and a split-wedge rangefinder was incorporated. It was made between May and November 1963, and 16,637 were produced.

September 1963 saw the introduction of the Exakta Varex IIb (028) This model was very similar to 026 but Varex IIb, or for special export, VX IIb is engraved on the front plate, omitting "Ihagee Dresden, which now appears on the top plate, forward and left of the slow speed dial. Shutter speeds were revised, providing a geometric series, the rewind knob had a folding crank, flash synchronisation replaces "M" with "FP", while control knobs changed shape. The slow speed knob was deeper, and the film speed reminder disc now appeared as a black inset to the slow speed knob. Very significant was the change to the viewfinder locking arrangements. The release button on the front plate above the lens was now omitted completely, and the viewfinder was removed by simply pulling it up. The catches which previously had been operated by the release button now relied on spring pressure to hold the viewfinder in place. Removal was thus simpler, but the fixing was thought by many users to be less secure. Apart from this, the quality was that of its predecessor. The button would be replaced in the future! This model was made until August 1967, and 114,351 were built.



Exakta Varex IIb of 1963 - no release catch for the finder. This camera is fitted with a Tessar 2.8/50mm fully automatic lens.

PML

Another prototype appeared in 1963. The Exa-matic (066) was similar in structure to the Exa IIa, but the top plate was changed to accommodate a window for a photocell, with an exposure meter pointer in the viewfinder. The aperture setting on the lens was transferred to the camera, and the bayonet fitting was retained. Lever wind, rewind and shutter controls were adjusted in shape to fit the top plate. Synchronisation was switchable for X and F.

In December 1963 the Exa IIa was revised (067) to include strap lugs on the front, and a minor adjustment to the lever locking the shutter release.

Hummel tells how,

"with the formation of The Peoples Own Enterprise Pentacon Dresden (VEBPD) on 1st January 1964, carrying with it the full authority of the state, the powers left to Ihagee were very limited. The entire Ihagee Development Department was incorporated into VEBPD from September

1964, although in point of fact it remained housed in the Ihagee building. Ihagee as a business concern was now very closely constrained.” Hummel 1994

Not surprisingly, this immediately led to difficulties in the organization. Tensions abounded, because the development department wanted to continue with their Ihagee heritage, but they were now part of VEBPD, whose ambitions were taking a different route. Firm direction was needed, and not unexpectedly, Ihagee concepts were to be abandoned as from 23rd September 1965. Somewhat of a contradiction, therefore, was to be the prototype of the Exakta Varex IIc in 1967!

In August 1964 the Exa Ia appeared (054). It was very similar to the previous model, Exa I, but now a lever wind was added to an Exa for the first time. 30,264 were built before the next change.



Exa Ia 1964

PML

In December 1964 the Exa IIb appeared. (068). This was very similar to the Exa IIa, but an instant return mirror was added to the camera. A trend was developing amongst other camera manufacturers for this desirable feature. The mirror returned to its 45° position immediately after exposure, restoring the viewfinder image almost instantly. The photographer could now tell whether the subject had changed in any way during exposure! A red warning signal appeared in the viewfinder to indicate that the shutter was now uncocked. The reminder ring for film type and speed was revised. This version was produced until August 1966, and 69,690 were made.



Exa IIb 1964 with f2.8/50mm Domiplan

PML

“Eventually, in June 1965, the final change of Works Manager and Administrator took place, with the appointment of Georg Francois. This was a difficult task for him, because his powers were so limited. Nevertheless he led the factory in 1965 and 1966 to a shining peak in terms of the numbers of Exas and Exaktas produced: in these two years 105,000 were made. However, the impact of VEBPD on Ihagee continued to grow. The prototype workshop, already taken over by Pentacon in 1964, was swallowed up into the Central Office for Research and Development on 15th February 1967. By this act, the existence of the one-time Ihagee Development Group was liquidated. It disintegrated. In the Ihagee factory there remained only two clerks, to receive and process urgent change-notices”.

Hummel 1994

In August 1965 there were minor changes to the detail of the Exa Ia in a revised film reminder ring (055). This model was in production until May 1977, and 328,701 were built. Special export variants appeared during this period, and are included in the production figure: Elbaflex 175 (056), Exakta 100 (057) and VX 100 (058). Each had the appropriate name on the face plate. The use of “VX” implies a link to the Exakta Varex series, which does not seem appropriate.

In August 1966 the last revision of the Exa II series was introduced. Called the Exa 500, (069), the shutter was now given a top speed of 1/500th sec (hence the name). The viewfinder screen was fitted with a Fresnel lens, including a microprism screen inside a ground glass ring, as a precise focusing aid. This model was manufactured until October 1969, and 102,867 were made.

There was always a communist party representative in all enterprises in the GDR, and as mentioned previously, Ihagee was no different. Frieder Delang had studied at an engineering school in Jena and had been at Ihagee for almost twenty years. Having held various union positions to which he was elected by the workforce, he became the party representative at Ihagee in 1966. His new role was not however, to his liking, because he was to become part of the dismantling of the company.

Frieder Delang, interviewed on film in “Exakta” by Gunter Eiselt

Is there an element of self justification in his comment that “we were well behind the competition”? It is easy to be critical of his part in the events that were

leading to the end of Ihagee, but of course, this was a repressive regime where people did as they were told!

Towards the end of this period, two special export variants were made of this camera: Exakta 500 (070) and VX 200 (071). What strange choices of names – using either the name of a camera that it clearly was not – or again the use of VX, which for many years had been a suffix for the Exakta Varex series.

A prototype was produced in 1967 for an Exakta Varex IIc. (029) which would have introduced an instant return mirror. Only one prototype was made. It would have been the last Exakta Varex with the traditional styling, but the new feature to have been introduced was, like the reappearance of the viewfinder release button, to appear in the next, much revised model.

There was a general acceptance that the Exakta Varex series would eventually be replaced by an entirely new Exakta, but this did not happen. The legal problems with Ihagee in West Berlin were on-going; the State wanted the Dresden camera industry to concentrate on the admittedly more modern Praktica models. However, the high and continuing reputation of Exakta cameras from Dresden was a guarantee of a satisfactory and profitable business.

Marketing materials issued between 1966 and 1967 showed the introduction of a new logo – 'Original Exakta Dresden'. Used firstly in addition to 'Ihagee Kamerawerke AG iv', it was not very long before the Ihagee name was omitted, leaving the logo as the only identifier.

So the previous model (Varex IIb) was modernized internally and externally, to appear at the Leipzig Autumn Fair in 1966 and at Photokina Cologne 1966, as the Exakta VX 1000 (030). Designed by Herbert Scholtze, the basic trapezoidal body shape remained; the top plate now had a skirt of about 7mm, replacing the black enameled band of earlier models. Bright chrome trim continued, and the release catch for the viewfinder was re-introduced. The front plate was still rectangular, with 'Exakta' in silver capital letters on a ribbed black background, and VX1000 was engraved on the front plate near the shutter release. 'Ihagee Dresden' was engraved on the top plate between the viewfinder and the slow speeds knob. Controls were basically the same, but restyled. Perhaps the most significant changes were the introduction of an Instant Return Mirror and the reappearance of the finder catch. No longer did the photographer have to cock the shutter to bring down the reflex mirror – the image returned as soon as the shutter was released. The wind-on lever was faster, because of its shorter throw. It has been argued that this involves more stress in the gear train. A sign of the times was the omission on some models, of 'Ihagee Dresden', with the top plate engraving being 'Aus Dresden'



The Exakta VX 1000, 1966, fitted with a Biometar f2.8/80mm lens.

Connoisseurs of Ihagee Exaktas feel that this camera lacks the silky smoothness of its predecessor, the Varex, and that the internal gearing feels coarser in action. Nevertheless, it drew heavily on earlier models, and was clearly successful, being made from August 1967 until December 1970, with 104,084 being built. This figure includes two variants: a special export model, VX 1000 (031), bearing this name on the front plate, and "aus Dresden" on the top; and Elbaflex VX 1000 (032). This was produced because the name Exakta was inadmissible in some markets, due to the litigation still taking place. The camera instruction manual makes no reference to the company making it

"With the formation in 1968 of the Combinat VEBPD (the Combine) came further encroachments on the functions of Ihagee. All sales of Ihagee products were now carried out by the newly formed "Central-Photo-Kino Bureau" in the Combine. Into this office too the advertising and customer service departments were (absorbed); and so came the end of these departments, which had once underpinned Ihagee's reputation". (Hummel 1994)

1968 to 1970

The apparently sovereign Ihagee camera company, through the dismantling of its development, sales, service and advertising functions, had become merely a production platform, without any rights to a say in any essential matters.

Delang comments that incorporation into the Pentacon combine carried with it promises that the Ihagee identity and manufacturing profile would be retained. The Ihagee element had to agree to this, albeit with reservations. But after the merger was completed, all this was conveniently forgotten, what was left "was really ruined by the Pentacon management". Frieder Delang, interviewed on film in 'Exakta' by Gunter Eiselt

Production continued to be significantly high, and in spite of the limited self-sufficiency, a remarkable turnover was achieved both at home and abroad. In 1968 over 100,000 cameras were produced, with a similar number in 1969.

A cheaper Exakta was made available in March 1969. The Exakta VX 500 (033) was similar to the VX 1000, but lacked the slow speed mechanism, and the top shutter speed was 1/500th sec., instead of the 1/1000th of the better specified VX 1000. Most body chrome was omitted. From March 1969 to May 1969, 5150 were built, before the first change took place (034). The name plate was printed 'Exakta VX 500', the engraving on the front plate being omitted. 8,200 of this version were built up to September 1969. This is a reminder, perhaps, that there had been an Exakta Junior ("Volks Exakta 1934/Exakta Junior 1937) which also omitted the slow speeds.

From September 1969 until January 1972, the second change version of the Exakta VX 500 was produced (035). There was an additional flash speed of 1/40th sec. added to the shutter speeds, marked on the shutter speed dial by a lightning flash symbol. 72,884 of this model were built, but this figure includes a special variant, the Elbaflex VX 500 (036). This too was an "aus Dresden" camera, produced because the name Exakta was inadmissible in some markets. Production variants for "special exports" were also seen, bearing the name "VX 500". (see below)

It is interesting to compare the output of Ihagee and the whole Combine in 1969. Ihagee produced 98,407 miniature format SLRs, and the whole Combine only 167,000. Ihagee's very substantial share naturally resulted in comparisons

that were not all that favourable to the Combine. By absorbing so much of the traditional Ihagee efficiency and quality the Combine had highlighted its own shortcomings.



This 'special export' VX 500, body no. 1523640 was made between September 1969 and December 1970 No mention of 'Exakta'

PML

By October 1969, Herbert Scholtze was working on the design of a new Exakta camera, in parallel with the development of the new Praktica L series by VEB Pentacon Dresden. Features of the L-series that were to be used included:

- A metal bladed shutter

- TTL metering using a special viewfinder unit

- Internal triggering for lenses with automatic stopdown of the diaphragm

- A modern external appearance.

The Exakta bayonet was the only concession to the earlier system, and a second, left-hand, shutter release was fitted to allow use of the old style Exakta lenses. The principle of a socket for the viewfinder was also retained, and components for a waistlevel finder, pentaprism, magnifying viewfinder and TTL metering prism were all available. This was, however, a different fitting to the Ihagee Exaktas.

The new Exakta RTL 1000 (120) was shown at the Leipzig Autumn Fair in 1969. So were the Praktica LLC and the Praktica L. All showed many similar details. Production of the Exakta RTL 1000 was not in the former Ihagee factory, but integrated into the production line of the Praktica L-series.



Exakta RTL1000

PML

The main features were a rectangular body shape, a vertically operating metal bladed focal-plane shutter with speeds from 8 sec. to 1/1000th sec plus B. A delayed action self-timer was fitted. Release of the shutter was possible via either a small block on the right front, or a duplicate release on the left front, similar to the old Exakta shutter release. There was one speed selector knob on the right top, but this was now non-revolving. It was notched to enable the use of the TTL prism unit when fitted, which could thus operate the shutter speeds for correct metered exposure. The frame counter automatically reset itself when a new film was installed. A focusing eyepiece was available in addition to the waist level or prism finders.

But in 1970, the State's aim of concentration of the Dresden camera industry had to be pursued further, and permanent arrangements were made. All the Ihagee buildings, machines and equipment were leased in a so-called "amicable arrangement". Perhaps the phrase "compulsory purchase" would be more apt! So Ihagee ceased to be an independent camera manufacturer, and the company was de-registered in 1971. The Ihagee factory at Blasewitzer Straße 41/43 was now 'Property No. 18', a production unit of the Combine.

Strangely, though, both the companies set up by Steenberg in 1941 remained in being, still foreign owned, and were administered by a State Commission.

So ended the production of Ihagee cameras in Dresden, although Exakta and Exa cameras were sold as Pentacon products after 1971.

1971 to 1987.

This period saw continued production by Pentacon of cameras with the name Exakta and Exa. Although this account is about Ihagee, there was a continuing use, in Dresden, of two valuable names, which derived from the Ihagee period, and the story therefore includes these for completeness. Pentacon were now in control, but there was a significant lack of inspired development to enable serious competition with the Japanese camera industry, which by now was winning the battle for quality and design.

The Exakta RTL 1000 was in full production; between 1969 and 1973, 86,050 cameras were built. Three different name plates were fitted. Originally the name "Exakta" was prominent, with "RTL 1000" engraved alongside it on the right front. But to save engraving, the first variation (121) was for the nameplate to be inscribed "Exakta RTL 1000". This appeared in 1970 and was used for the last 74,760 to be built. Included in this (of course!) was the special export variant (122) which omitted the word "Exakta", using instead the inscription "RTL 1000". The number made is not recorded in Hummel's figures.

By now, the Exa 1a (055) had been in production for nearly twelve years, up to May 1977 (including its three special export name variants) and the production figure of 328,701 is really quite astounding. Revision was now necessary, and the result was the Exa 1b. (059). What changes could be devised for such a camera? Not many, in the event, but two were quite significant. The Exakta bayonet mount for the lens was dropped, to be replaced by the M42 screw mount. This was in use now by many cameras, and in order to allow both interchangeability of modern lenses, and simply to be more up to date, an internal release for automatic stop down lenses was fitted. Apart from these two changes, there were revisions to the shape of the wind-on lever, and the rewind knob now had a folding crank. This variant lasted for six years, and 206,411 were made.

In July 1983 the Exa 1b had its first change, but this only saw the addition of a plastic name plate (060). 49,780 of this version were made up to August 1984, before the second change (061) introduced a black plastic top plate. Black cameras were appearing all over the world, and one could be tempted to say that this was a cosmetic attempt to keep up with fashion! 29,907 of this black Exa 1b were made, until May 1985, when the Exa 1c appeared (062). Like the Exa 1b, this was a black camera, but now the back plate also was made in black plastic. This was the last model of the Exa 1 series, and 103,875 were made. In the later stages of Exa 1 production, the cameras were being made at the old "Certo" factory, and this has resulted in body numbers beginning with "C".

There is a widely held view that the Exa 1b and 1c were marketed only in the East European Communist States (Comicon). To collectors in the west they were very hard to find, as indeed were most of the special export variations in model names mentioned previously. Nevertheless they did eventually filter through. The author acquired his Exa 1c through a West German dealer.



Exa 1c

PML

CHAPTER ELEVEN

In Retrospect

This account of a camera company began at the beginning of the twentieth century, and dealt with a period that included two World Wars, a so-called political "Cold War", and the development of outstanding technical achievements in all fields. Whatever happened in the photographic industry was only a mirror of the parallel achievements of practically every other industry. Those who had been involved in 1912 in Marcolini Strasse could never have envisaged the changes that were to follow. They laid the ground work, certainly, the basis upon which Karl Nüchterlein was to build for the future that he was never to see. And what a future it was. Even without Nüchterlein's presence, his influence persisted well into the second half of the century. So did that of Johan Steenbergen. Dispossessed of his enterprise by the Nazis in 1942, he was never able to return to Dresden, and could only follow events from afar. But he did retain his love of the Exakta, and is pictured in his biography using a Kine-Exakta in 1953. His nephew, Hein Erhardt spoke to the Exakta Circle in 2004, and showed the members present "Uncle Johan's" Exakta Varex IIa. How moving it was actually to handle the great man's camera.

Why did it all eventually go wrong? There are many reasons, of course, and it would be too easy to single out, for example, the bureaucracy of the communist GDR that ground down any final resistance to the merger with VEB Pentacon. The politicians had long resented the presence of a foreign-owned company in East Germany, and eventually, through devious stages, achieved its demise.

Perhaps the most succinct technical reasons were made by Steffen Wolf, a photo dealer in Weisser Hirsch. He said that customers bought an Exakta for two reasons. Firstly, an investment in solid craftsmanship. But secondly, and contrary to simple monetary investment (for example, in a savings bank account), it was possible to combine that investment into one's hobby. The Exakta would continue to function without a problem – one bought it for a lifetime. He saw the 1950s Ihagee company as a gold-mine – but one that made no investment for the future. As a result of this, very capable people such as Heinz Lesser left Ihagee. (Lesser joined Zeiss Ikon). Research and development, such as it was, seemed to be directed to the immediate future – making the current products better.

Peter Hammer was an expert in quality control who represented Ihagee at various trade fairs. To him, the phenomenon of the 1960s was the appearance of the Japanese at Trade Fairs such as Leipzig. They asked detailed questions. They studied every detail, recording them in writing and photographs. So confident were the Ihagee representatives (and probably those of all the other German camera manufacturers) in the quality of their products that they freely passed on their knowledge. Only later did it emerge that these interested people were themselves camera designers. After a couple of years or so, the German designers were taken aback by the great solutions coming from the Japanese Camera industry - the electronic elements, the internal metering, the superb optics, the sheer quality. "These were causing us to be very distressed as we realized that we had lost the scientific and technical lead."

Peter Hammer, interviewed on film in "Exakta" by Gunter Eiselt

Nüchterlein's patented concept of TTL (Through The Lens) metering was well and truly hijacked by the Topcon company in the early 1960s, using

Ihagee features. "Things were getting dangerous; we no longer had a say in technical progress", said Hammer.

As we have seen, it all ground to a halt. Sad though that may be, we have witnessed the wonderful evolution of photography from the days of wooden cameras using glass plates, to a world famous system camera capable of application to all forms of professional, technical and amateur photography.

What a memorial to Johan Steenbergen and Karl Nüchterlein, in particular, and to those countless hundreds who were also involved, both before WW2 and thereafter.

There is a more tangible memorial to Karl Nüchterlein in Dresden. When the Blasewitzer Strasse buildings were redeveloped in the early 2000s, an attractive office building appeared on the site. Close to the entrance, and facing the road, a plaque has been fixed to the building commemorating Nüchterlein and the Kine-Exakta. The author's first reaction to this was that Nüchterlein never actually worked at this site, but on reflection, his principal creation, the Kine-Exakta was made here from 1945 until its demise.



The Nüchterlein memorial

PML

It could be argued that such a memorial should have been erected on the redeveloped Schandauer Strasse, but, hey, shouldn't there be a proper memorial, here, to Johan Steenbergen? He was never able to return to Dresden, and continued in his "second career" as a diplomat, becoming a very successful consul for the Netherlands in Hanover and Emden. He died in March 1967, and is buried in Bonn.

It was to be another twenty-two years before East Germany, and Dresden in particular, became freely accessible again.



This is 24 Schandauer Straße today. The road crossing the picture is Bergmannstraße, Schandauer Straße is to the left.

PML

APPENDICES

(i) Glossary

| | |
|------------------|----------------------|
| Plate holder | Optical Finder |
| Film Pack | Frame Finder |
| Brilliant Finder | Lens panel movements |

(ii) Model listing and body numbers. Based on IHG listings and Hummel's figures.

(iii) Lenses and Accessories

(iv) The crucial letters from the Communist Government to Ihagee

(v) Druckguß Heidenau – diecast body parts.

(i) Glossary

Plate Holder

A very shallow metal box designed to slide onto rails at the rear of a plate camera. It contains a pre-loaded glass plate coated with light sensitive emulsion. One side of the plate holder (the dark slide) is removable to allow light from the camera lens to fall upon the emulsion, thus exposing a photograph, in a similar manner to a roll film camera. Ihagee supplied these plate holders either singly, or in a leather case holding three. Glass plates with various emulsions were sold in boxes containing several plates wrapped in black paper for loading (in the dark) by the user into his plate holders. In later years, sheets of cut film in very slender metal frames would replace the glass plates.



Ihagee provided plate holders in sets of three, each numbered, in a leatherette pouch. Here are three 6x9cm holders (left), and two 4.5x6cm holders (right). One has the dark slide opened to show the glass plate. PML

Of an older vintage, plate holders were made of wood, usually polished, with a wooden dark slide. These were normally clamped to the rear of a camera, instead of sliding on rails. Some of these were double sided, holding two plates covered by two dark slides. Holders like these were supplied with Corona.

Film Pack

A widely used cut-film device, where a set of twelve films were stored in a container made of flat card or light metal, with a picture aperture on one side.

Each sheet of film had a paper leader with a numbered tab, and there was a paper cover strip to protect the films before use. As the tab was pulled out of the end of the container, the unexposed film was drawn into the aperture, and after exposure, drawn to the back of the pack, leaving the leader for the next film ready to commence its journey. It was popular in the 1920s and 30s.

This whole package was fairly vulnerable, so in use it was inserted into a carrier, similar to, but deeper, than a plate holder. The same principle of a dark slide was used to protect the picture aperture, and the carrier slid onto rails at the rear of a plate camera, just like a plate holder. A full range of carriers was made by Ihagee. Film packs were available in a range of makes, up to thirteen sizes, and various emulsions. Old packs and carriers can still occasionally be found at camera fairs.



Ihagee film pack holder and original box. The lid hinges open to allow a film pack to be inserted.

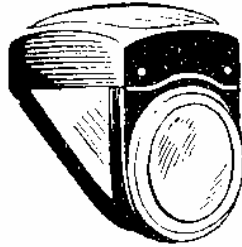
PML



Brilliant Finder

The most widely used viewfinder on folding cameras of all makes is the "Brilliant" viewfinder with its little sloping mirror. It is in effect a miniature reflex

device, but with a low power magnifier on top instead of a ground glass screen. The image is minute, lacking the precision of better quality viewfinders. It is fitted to the top or side of the lens standard, and folds flat when the camera is closed, thus occupying little space. The camera has to be held at waist level to see the image. Occasionally, a small spirit level was attached to this finder. It could be rotated between landscape and portrait formats.



The "Brilliant" viewfinder

Optical finder

The optical viewfinder, or tubular finder, is an improvement on the brilliant variety. This was fitted to most of the better grade cameras, and is used at eye level. The effect is rather like looking through the wrong end of a telescope.

In Leica and Contax type cameras the finder is built in; some cameras have the finder in a tube on top of the body (e.g. Leica I), whereas others have a collapsible variety where front and back elements fold down together. (See the 1932 illustrations of the Parvola and Westentaschen Auto Ultrix.) There were variations such as the 'Albada' type of finder, giving larger images, but these did not appear on Ihagee cameras.

Frame Finder

This viewfinder is found on most Ihagee plate cameras from the mid to late 1920s, and usually in conjunction with a brilliant finder. It is a simple but stout wire rectangle which hinges out from a rest position in front of the lens standard. The body of the camera carries an eye-piece, which can be folded flat when not in use.

The field of view is seen at normal size, with no optical reduction as in the optical and brilliant finders, and is especially useful for sports photography.

The word "simple" is used above; but the actual shape of the wire rectangle has to fit snugly around the shape of the lens standard when closed. This is illustrated in many of the illustrations given previously in the pre-war chapters.

Lens panel movements.

For architectural photography the camera frequently needs to be tilted upwards to include the whole of a building, and the result can be a distorted picture with converging verticals. A similar effect can be seen in the horizontal format also. A form of perspective control has been offered since the early days of photography in an attempt to correct this.

Most of the more advanced models of plate cameras and one Ultrix model are provided with a lens panel which can slide vertically in the U-shape of the

lens standard. The latter can slide horizontally where it is fixed to the focusing rails. On cheaper cameras with this facility, the movement is effected by finger pressure. More refined models have a screw control in both directions, which can clearly be seen in the illustrations. The normal position in both directions is marked by the alignment of white spots.

In use, the effect of these movements could be observed on the ground glass at the back of the camera when focusing, and before the plate holder was fitted prior to exposure.

(ii) Model Listing and body numbers

a) Prewar non-Exakta Ihagee cameras:

The body numbers – highest recorded and lowest recorded - are derived from a listing produced by Ihagee Historiker Gesellschaft many years ago, and subsequently updated. Perhaps this data will never be up-to-date! Because of the way that body numbers were allocated in the factory across the entire output, it is not possible to deduce the output of any particular model.

| Year | Model | Cat. No. | Low No. | High No. |
|---------|---------------------------|----------|---------|----------|
| 1912 | Photorex | | - | - |
| 1914 | Photoklapp Triplex | | 916 | - |
| 1922/33 | Plan Paff (Reflex) 4.5x6 | | 23227 | 38360 |
| 1925/33 | Plan Paff (Reflex) 6.5x9 | | 67305 | 138751 |
| 1922/33 | Roll Paff (Reflex) 6x6 | | 19890 | 259858 |
| 1927 | Roll Paff 4x6.5 | | - | - |
| 1927 | Roll Paff 6x9 | | - | 134289 |
| 1919/33 | Photoknips 100 | | 147384 | 244328 |
| 1919/33 | Photoknips 200 | | 93224 | 244412 |
| 1927/36 | Derby | 310 | 209624 | 244770 |
| 1927/36 | Derby | 320 | - | - |
| 1921/36 | Ama | 420 | 151070 | 190515 |
| 1919/36 | Mikrobie | 500 | 7722 | 71430 |
| 1922/39 | Viktor | 510 | 97287 | 188154 |
| 1914/39 | Viktor | 520 | 5008 | 180932 |
| 1914/39 | Viktor | 530 | - | - |
| 1914/36 | Venus | 610 | 6223 | 268625 |
| 1919/39 | Patent Duplex =Pioneer | 710 | 215039 | 532534 |
| 1914/39 | Patent Duplex | 720 | 3925 | 322276 |
| 1914/39 | Patent Duplex | 730 | 169525 | - |
| 1914/39 | Patent Duplex | 740 | - | - |
| 1925/32 | Luxus Duplex | 810 | - | - |
| 1925/32 | Luxus Duplex | 820 | - | - |
| 1925/32 | Luxus Duplex | 830 | 99311 | - |
| 1925/32 | Luxus Duplex | 840 | - | - |
| 1922/36 | Tropen Neugold | 910 | - | - |

| | | | | |
|---------|-----------------------|------|--------|--------|
| 1922/36 | Tropen Neugold | 920 | 29692 | 83390 |
| 1922/36 | Tropen Neugold | 930 | - | - |
| 1927/39 | Zweiverschluss Duplex | 1010 | 149137 | 293793 |
| 1927/39 | Zweiverschluss Duplex | 1020 | 141418 | 219882 |
| 1928/39 | Zweiverschluss Duplex | 1030 | 211781 | 268161 |
| 1924/39 | Patent Klapp Reflex | 1110 | 89465 | 159511 |
| 1925/39 | Patent Klapp Reflex | 1120 | 96139 | 159621 |
| 1927/39 | Patent Klapp Reflex | 1130 | 154231 | 193023 |
| 1924/27 | Ultrix Automat | 1250 | - | - |
| 1922/33 | Ultrix Simplex | 1360 | 128130 | 305354 |
| 1922 | Ultrix | 1460 | | |
| 1925/36 | idem hinged back | | 35101 | 348352 |
| 1924/36 | Ultrix | 1470 | 100206 | - |
| 1928/36 | Ultrix | 1475 | - | - |
| 1928/36 | Ultrix | 1485 | - | - |
| 1924/36 | Ultrix | 1490 | - | - |
| 1924/36 | Ultrix Duplex | 1560 | 75594 | 268241 |
| 1925/39 | Ultrix Stereo | 1690 | 92021 | 136255 |
| 1925/39 | Stereo Automat | 1715 | 91977 | 206396 |
| 1930/39 | Sport Kamera | 1810 | 303586 | 353722 |
| 1928/39 | Sport Kamera | 1820 | 279038 | 373511 |
| 1930/39 | Sport Kamera | 1830 | - | - |
| 1928/39 | Patent Klapp Reflex | 1910 | 238920 | 245452 |
| 1928/39 | Patent Klapp Reflex | 1913 | - | - |
| 1926/39 | Patent Klapp Reflex | 1920 | - | - |
| 1922/39 | Corona | 2030 | 319* | 91262 |

* This number probably derives from the time that Emil Englisch made the camera himself, before joining Ihagee.

| | | | | |
|---------|-----------------------------------|------|--------|--------|
| 1922/30 | Corona | 2035 | - | - |
| 1922/39 | Corona | 2040 | - | - |
| 1925/39 | Corona | 2045 | - | - |
| 1930/39 | Corona | 2046 | - | - |
| 1928/36 | Serien Reflex | 2110 | 130477 | 202970 |
| 1928/36 | Serien Reflex | 2113 | - | - |
| 1928/36 | Serien Reflex | 2120 | 245640 | - |
| 1929/36 | Auto Photoklapp | 2220 | 241485 | 278428 |
| 1929 | Photoklapp Duplex | 2310 | 404277 | - |
| 1929/31 | Photoklapp Duplex | 2320 | 178017 | - |
| 1928/36 | Zweiverschluss Stereo | 2430 | - | - |
| 1929/34 | Nachtreflex | 2500 | 277788 | 292958 |
| 1929/35 | Nachtreflex | 2510 | - | - |
| 1928/39 | Patent Klapp Reflex | 2610 | 234001 | - |
| 1932/39 | Westentaschen Auto Ultrix | | | |
| | = Autolette 4x6.5 | 2850 | 380956 | 473957 |
| 1930/39 | Auto Ultrix 6x9 | 2860 | 302853 | 470527 |
| | idem body release | | 593777 | - |
| 1933/39 | Auto Ultrix zweiformat | 2860 | 407179 | 551674 |
| 1928/36 | Ultrix | 2960 | - | - |
| 1932/39 | Auto Ultrix plate back | 3860 | 341259 | 502362 |
| 1932/34 | Westentaschen Auto Ultrix Simplex | 4850 | - | - |
| 1934/39 | Volks Auto Ultrix 2f Junior | | | |

= Zweifformat Auto Ultrix Junior

| | | | | |
|---------|-----------------------|------|--------|--------|
| | | 4860 | 546110 | - |
| 1931/39 | Parvola 4x6.5 | 1350 | 343803 | 388893 |
| 1932/39 | Parvola 3x4 | 1450 | 343199 | 560990 |
| 1933/39 | Parvola (Zweifformat) | 1550 | | |

Remember the significance of the catalogue number and its last two digits:

| | | |
|------|-----------------|-----------------------|
| --00 | 4.5 x 6cm | plates/packs |
| --10 | 6.5 x 9cm | plates/packs |
| --13 | 9 x 9cm. | plates |
| --15 | 6 x 13cm | plates/packs (2x 6x6) |
| --20 | 9 x 12cm. | plates/packs |
| --30 | 10 x 15cm | plates/packs |
| --35 | 12 x 16.5cm | ½ plate |
| --40 | 13 x 18cm | plates/packs |
| --45 | 18 x 24cm | plates |
| --46 | 24 x 30cm | plates (Corona) |
| --50 | 4 x 6.5cm | roll film |
| --60 | 6 x 9/6.5 x 9cm | roll film |
| --70 | 6.5 x 11cm | roll film |
| --75 | 8 x 10.5cm | roll film |
| --85 | 8 x 14cm | roll film |
| --90 | 7.25 x 12.5cm | roll film |

Simplex = single extension; Duplex = double extension

Triplex = triple extension.

b) Standard Exakta Cameras

| Year | Model 8150 | Low No. | High No. |
|------|---------------------------|---------|----------|
| 1933 | fine lens thread | 400043 | 411721 |
| 1934 | model A | 408220 | - |
| 1934 | model B | 411752 | - |
| | Ihagee/Junior/VolksExakta | 413526 | 413551 |
| | Exakta Junior | 419059 | 590751 |
| | 3 o'clock infinity lever | 420653 | - |
| 1935 | knob wind | 429796 | - |
| | night, lever wind | 422936 | 533481 |
| | no flash sync | 437904 | - |
| | with flash sync | 429796 | 436980 |
| 1936 | model C | 432082 | 544318 |
| 1937 | chrome | 488651 | - |
| 1938 | no vacublitz hole | 515813 | - |
| | with vacublitz hole | 515062 | - |
| | black screwed-on plate | 533186 | 572150 |
| 1939 | all types | 400043 | 590751 |

c) 35mm Exaktas and Exas

These data are derived from Hummel, and has been published in Exakta Times. In this case, the quantity built figure is more authoritative than any earlier research.

Ihagee's catalogue number 8140 applied only to all pre-war Kine-Exaktas.

| Ref.No (Hummel) | model | Production dates | Quantity built |
|--------------------|-------|------------------|----------------|
|--------------------|-------|------------------|----------------|

Kine-Exakta and Kine-Exakta II (91995 built; 9 production models, 3 prototypes)

| | | | |
|-----|---|---------------|--------------------|
| 001 | Kine-Exakta (round mag.) | 4/36 to 12/36 | 1400 |
| 002 | Kine-Exakta (square mag.) | 12/36 to 3/38 | 13200 |
| 003 | Kine Exacta (export) | during 1937 | incl. in 002 above |
| 004 | Kine-Exakta (2 nd change) | 3/38 to 1/40 | 21000 |
| 005 | Kine-Exakta (3 rd change) | 2/40 to 11/43 | 2400 |
| 006 | Kine-Exakta (4 th change) | 8/45 to 2/49 | 35821 |
| 007 | Kine Exacta (reparations) | 46 to 48 | incl. in 006 above |
| 008 | Exakta Diamant | 1948 | prototype only |
| 009 | Kine-Exakta (TTL) | 1948 | prototype only |
| 010 | Kine-Exakta II | 2/49 to 6/49 | 6100 |
| 011 | Kine-Exakta II (fixed prism) | 1949 | prototype only |
| 012 | Kine-Exakta II (1 st change) | 7/49 to 2/50 | 12074 |

Exakta Varex (441820 built; 14 production models, 3 prototypes)

| | | | |
|-----|---|----------------|----------------------|
| 013 | Exakta Varex | 2/50 to 11/50 | 12695 |
| 014 | Exakta Varex (1 st change) | 11/50 to 2/51 | 4295 |
| 015 | Exakta V (for US market) | 50 to 51 | incl. in 013/4 above |
| 016 | Exakta Varex (model 1951) | 3/51 to 5/51 | 3900 |
| 017 | Exakta Varex VX | 6/51 to 6/53 | 40117 |
| 018 | Exakta Varex (double release) | 51 to 53 | incl. in 016/7 above |
| 019 | Exakta Varex VX (1 st change) | 6/53 to 6/55 | 37800 |
| 020 | Exakta Varex (variable synch.) | 1953 | prototype only |
| 021 | Exakta Varex VX (2 nd change) | 6/55 to 9/56 | 37800 |
| 022 | Exakta Varex VX (3 rd change) | 5/56 to 12/56 | 7737 |
| 023 | Exakta Varex IIa | 11/56 to 10/57 | 27790 |
| 024 | Exakta Varex IIa (1 st change) | 11/57 to 5/58 | 17395 |
| 025 | Exakta Varex IIa (2 nd change) | 5/58 to 9/60 | 71140 |
| 026 | Exakta Varex IIa (model 1961) | 9/60 to 8/63 | 65620 |
| 027 | Elbina Super | 1960 | prototype only |
| 028 | Exakta Varex IIb | 9/63 to 8/67 | 114351 |
| 029 | Exakta Varex IIc | 1967 | prototype only |

Exakta VX 1000 and VX 500 (190318 built; 8 production models)

| | | | |
|-----|--|---------------|--------------------|
| 030 | Exakta VX 1000 | 8/67 to 12/70 | 104084 |
| 031 | VX 1000 (special export) | 6/69 to 12/70 | incl. in 030 above |
| 032 | Elbaflex (special export) | 6/69 to 12/70 | incl. in 030 above |
| 033 | Exakta VX 500 | 3/69 to 5/69 | 5150 |
| 034 | Exakta VX 500 (1 st change) | 5/69 to 9/69 | 8200 |
| 035 | Exakta VX 500 (2 nd change) | 9/69 to 1/72 | 72884 |
| 036 | Elbaflex VX 500 | 9/69 to 12/70 | incl. in 035 above |
| 037 | VX 500 (special export) | 9/69 to 12/70 | incl. in 035 above |

Exa (1060625 built; 23 production models, 2 prototypes)

Exa – first generation

| | | | |
|-----|------------------------------------|--------------|--------------------|
| 038 | Exa Varex | 2/1950 | c.40 |
| 039 | Exa Varex (1 st change) | 3/1950 | c.100 |
| 040 | Exa | 2/51 to 8/51 | 1150 |
| 041 | Exa (1 st change) | 8/51 to 2/52 | 11817 |
| 042 | Exa (2 nd change) | 2/52 to 6/52 | 6980 |
| 043 | Exa (3 rd change) | 5/52 to 8/53 | 13582 |
| 044 | Exa (18x24) | 1952 | incl. in 043 above |
| 045 | Exa (4 th change) | 9/53 to 3/56 | 32697 |
| 046 | System Exa Rheinmetall | 54/55 | c. 8000 |
| 047 | Exa (5 th change) | 4/56 to 5/59 | 94345 |
| 048 | Exa (6 th change) | 6/59 8/60 | 38330 |
| 049 | Exi-automatik | 1960 | prototype only |
| 050 | Exa model 1961 | 9/60 to 8/62 | 58450 |

Exa – second generation

| | | | |
|-----|---|---------------|--------------------|
| 051 | Exa I model 1963 | 9/62 to 11/63 | 37960 |
| 052 | Elbina I | 1962 | prototype only |
| 053 | Exa I model 1963 (1 st change) | 12/63 to 7/64 | 15966 |
| 054 | Exa Ia | 8/64 to 8/65 | 30264 |
| 055 | Exa Ia (1 st change) | 8/65 to 5/77 | 328701 |
| 056 | Elbaflex 175 (special export) | 6/69 to 12/70 | incl. in 055 above |
| 057 | Exakta 100 (special export) | 6/69 to 12/70 | incl. in 055 above |
| 058 | VX100 (special export) | 9/69 to 12/70 | incl. in 055 above |
| 059 | Exa Ib | 6/77 to 6/83 | 206411 |
| 060 | Exa Ib (1 st change) | 7/83 to 8/84 | 49780 |
| 061 | Exa Ib (2 nd change) | 9/84 to 5/85 | 29907 |
| 062 | Exa Ic | 5/85 to 9/87 | 103875 |

Exa II (307792 built; 7 production models, 2 prototypes)

| | | | |
|-----|----------------------------------|----------------|--------------------|
| 063 | Exa II | 8/60 to 5/63 | 88708 |
| 064 | Exa IIa | 5/63 to 11/63 | 13637 |
| 065 | Elbina II | 1963 | prototype only |
| 066 | Exa-matic | 1963 | prototype only |
| 067 | Exa IIa (1 st change) | 12/63 to 11/64 | 32890 |
| 068 | Exa IIb | 12/64 to 8/66 | 69690 |
| 069 | Exa 500 | 8/66 to 10/69 | 102867 |
| 070 | Exakta 500 (special export) | 6/69 to 10/69 | incl. in 069 above |
| 071 | VX200 (special export) | 9/69 to 10/69 | incl. In 069 above |

Exakta RTL 1000 (86050 built, 3 production models)

| | | | |
|-----|--|---------------|--------------------|
| 120 | Exakta RTL 1000 | 10/69 to 8/70 | 11290 |
| 121 | Exakta RTL 1000 (1 st change) | 9/70 to 1/73 | 74760 |
| 122 | RTL 1000 (special export) | 9/70 to 1/73 | incl. in 121 above |

(iii) Lenses and Accessories

Lenses

The text has given details of the various lenses available for the Standard and Kine-Exaktas. Meyer, Schneider and Zeiss were the first suppliers of lenses for the Standard Exakta, although Rodenstock, Goertz and Steinheil had joined the others for the earlier Ihagee cameras. But other lens manufacturers were keen to get into the act. The British lens makers Dallmeyer offered a Dallon f5.6 telephoto lens of 6 inch focal length (c.153mm) for both the Kine-Exakta and the Standard Exakta in 1938, and also a wide-angle lens at f.11 with a focal length of 60mm. Dallmeyer lenses were listed by Garner and Jones, but did not appear in Ihagee listings.

After WWII, the list of lens manufacturers became enormous - to list them all would require a whole book. In France, Angenieux produced excellent lenses for Exakta from 1950. So did Schneider, Enna and Kilfitt.

The American, Norlin Rober, has listed over 700 lenses manufactured world-wide for the Exakta; Dr. Neill Wright also produced a long lens listing, but perhaps not so all-encompassing as Rober. Much fuller information, with illustrations, is given in the books of Aguila and Rouah. For the most practical reason, therefore, that of brevity, I am merely referring to the lenses supplied by Ihagee for their cameras.

In 1950 with the Kine-Exakta II, Ihagee listed 50mm Zeiss Tessars at f3.5 and f2.8, a 50mm Meyer Trioplan at f2.9, and a 58mm Zeiss Biotar at f2. The wide angle lenses were a 4cm. f4.5 Tessar and a 4cm. f4.5 Meyer-Weitwinkel-Doppel-Anastigmat. Climbing up the focal length table were a 7.5cm f1.5 Biotar, a 10cm. f2.8 Trioplan, a 13.5cm.f4 Zeiss Triotar, a Meyer 15cm. f5.5 Tele-Megor, three 18cm lenses: Zeiss Sonnar f2.8; Meyer Primotar f3.5 and Tele-Megor f5.5. Really long telephoto lenses went up to f5.5 Tele-Megor at 25cm; f4 Sonnar at 30cm. and f8 Zeiss-Fern-Objectiv at 50cm.

This list did not change significantly in the 1951 listing for the Exakta Varex VX. But the 50mm Trioplan was replaced with a Meyer f1.9 58mm Primoplan. By 1954 the Tessar had a semi-automatic presetting device for the aperture. A cocking lever opened the aperture to f2.8, and then release of the shutter through the lens button closed the aperture to the preset setting before releasing the shutter.

Late in 1955, the 58mm Biotar is referred to as Jena B, and the f2.8 Tessar as Jena T. Whatever legal process was causing this coyness, it did not extend to all the Zeiss lenses. Curious!

But in January 1959 the Flektogon 35mm wide angle lens became Jena FI; the Sonnars became Jena S, and the Biometar f2.8 80mm lens became Jena Bm. In the 1962 edition of 'Assured Success for everyman' the Meyer Domiplan 50mm f2.8 had become the economy lens, and fully automatic control of the diaphragm was introduced (FAD). The Zeiss Tessar (Jena T) had a similar automatic aperture release, dispensing with the cocking lever. A wider aperture standard lens now appeared - the Zeiss Pancolar - a 50mm f2 FAD.

A 1961 Zeiss leaflet showed that all their Exakta/Exa lenses from 25mm and 35mm (Flektogon) through Tessar and Pancolar to the Biometars at 80mm and 120mm were all now fully automatic. Later the same year, the leaflets for the ill-fated Elbina cameras showed that the lens provision remained, imaginatively,

the same as the Ihagee cameras. The lenses included a Ludwig Meritar, a 50mm f2.9 entry level lens that had already appeared on the Exa.

A Meyer Domiron f2 FAD appeared in 1961. This lens had an extra long focusing thread for close-up work without accessories. There was then little change until 1964 when a favourite lens of the author appeared – the Meyer Lydith. This is a 5 element 30mm f3.5 wide angle lens which offers a cheaper alternative to other more expensive wide angle lenses, but also offers very good performance. The aperture is manual in operation.

The emergence of the Exakta VX 1000 in 1967 still saw the old faithful list of lenses, but Meyer lenses with unfamiliar names had now appeared – Orestor, a 135mm. f2.8 lens, together with two Orestegors, a 200mm lens at f4 and a 500mm lens at f5.6. The 1969 VX500 leaflets added another Orestegor to the list – a 300mm f4 version.

But when the Praktica inspired Exakta RTL 1000 appeared, in 1969, lenses changed somewhat. The three basic lenses were all now equipped with automatic pressure diaphragms released internally from within the camera body. The standard 50mm f1.8 Meyer lens was the Oreston, a 29mm f2.8 wide angle lens was the Orestegon, and at 100mm, the f2.8 Orestor. Flektogons at 20mm and 35mm were augmented with Lydith at 30mm. The rest of the list was basically unchanged.

Accessories

From the earliest days, Ihagee offered the users of their cameras a wide range of accessories to increase their versatility and to enable specific tasks to be undertaken.

Vera-Satz, referred to in chapter two, may well have been the first advertised accessory in 1914, but the catalogue, also issued in 1914, contained many more. Plate cameras needed plateholders, and although the cameras were usually supplied with a set of three in their leatherette case (Etui), more would be needed, and thus from the beginning, a full range of sizes was available. Filmpack adaptors were also listed, and were also available in the same range of sizes, either in a metal finish, or for the more sophisticated photographer, covered in real leather.

Leather cases and imitation leather cases were supplied for the various sizes of plateholders, and it is noted that these cases accommodated three plateholders or one film pack adaptor. Larger leather cases to take a camera with either three plate holders or one filmpack adapter were lined with a velvet material. Or without, for a lower price!

Vera-satz had introduced the spring mounted holder for the supplementary lenses; these were also available separately for use with yellow filters, either square or round, and the filters themselves in three grades of yellow.

An optical, folding viewfinder was available for attachment to the body of those cameras then in production, which were supplied only with the brilliant type of finder.

Flash photography was already well established, and Ihagee supplied various types of flash guns for use with flash powder, ignited by a spark, using a device not unlike a cigarette lighter. The flash powder burned (or exploded?) in the open on a platform in front of a reflector. By today's standards, a fairly hazardous affair!

By 1919, wooden and metal tripods were listed, as were cable releases for use in making long exposures. The first Lumimax enlargers were now available,

Forward now to the era of the Exaktas. When the first Exakta appeared in the 1933 catalogue, it was so new that no accessories were on offer. The following year saw the provision of filters, an extension for the focusing hood, illustrated at the end of chapter five, and a lens hood. The ever-ready case made an appearance also, but only for the camera with the f2.8 Tessar. The range was extended the next year to fit other models.

Extension tubes made their appearance, for both Standard and Kine-Exaktas, enabling close-up photography when fitted between the camera and its lens. A large release button could be fitted to either model Exakta, especially useful in winter when the photographer was wearing gloves. A focusing lever could be fitted to the focusing ring on the Standard Exakta giving greater precision of movement, and a ball and socket head could be fitted between camera and tripod to facilitate camera positioning.

Microscope adapters for both cameras, used in conjunction with extension tubes, opened up a whole new world of Microphotography. The Vacublitz

flashgun introduced synchronized flash photography, when plugged into the Exakta's flash contacts.

Rewinding the film into its cassette on the Kine-Exakta used a key on the bottom of the camera, that was not very comfortable in use. In the future it would be replaced by a round knob, but meanwhile an accessory rewinding knob could be fitted over the key.

A reproduction stand with an easel enabled a camera to undertake the copying of photographs or documents. Metal (vertical) or wooden (horizontal) versions could be supplied.

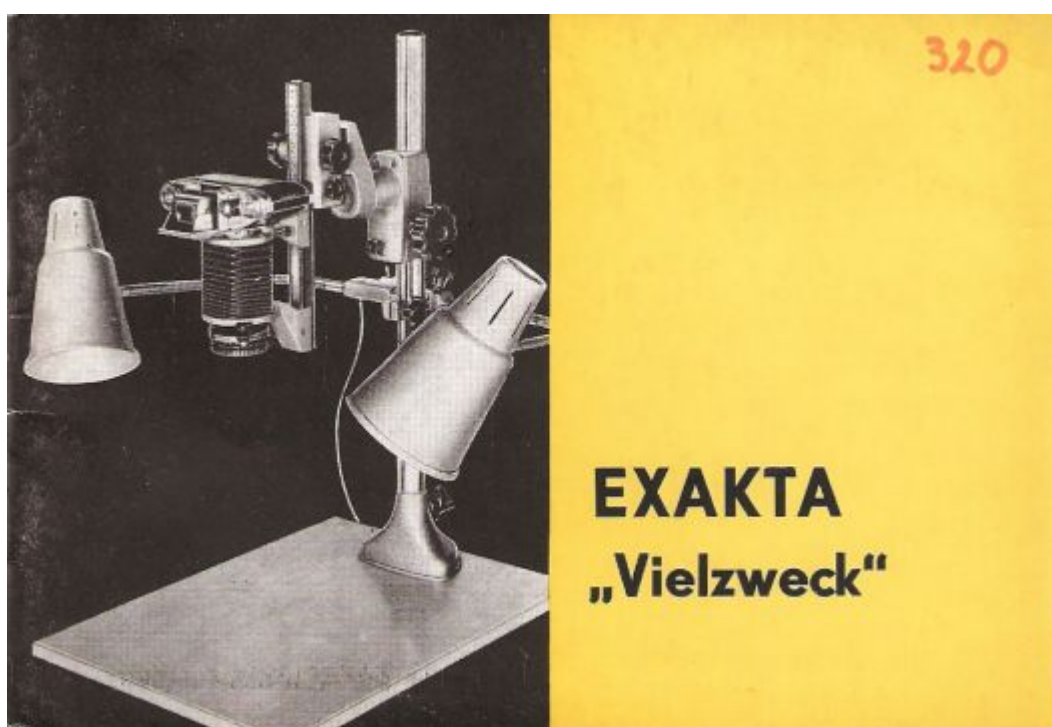
And all this had happened by 1939.

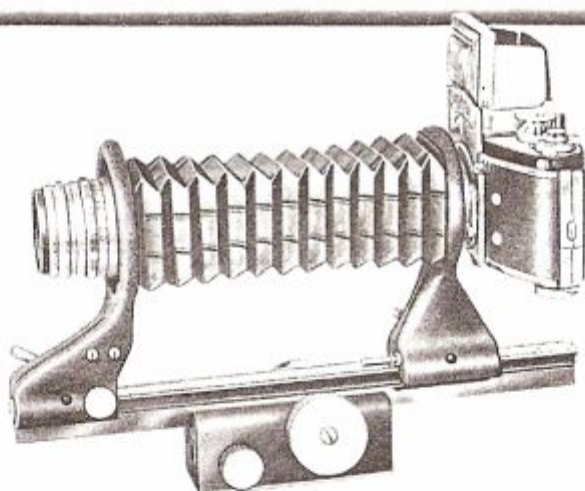
Once postwar production was well under way, the development of a wide range of accessories took place. Many of these were the "add-ons" that the everyday photographer would use, such as lens hoods, filters, extension tubes for close-up work, and so on. The 1950 Ihagee leaflet 'Micro and Macro pictures most easily and exactly with the Kine-Exakta' showed the extension tubes, the microscope adapter and the minor items. A warning note said

"For the purposes of professional micro photography a specially designed ground-glass focusing lens with clear spot and hairlines is recommended. Exchange of ground-glass focusing lenses in our works only"

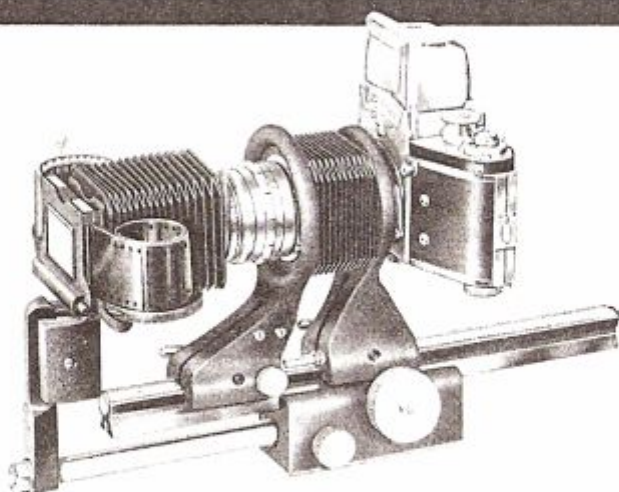
This, of course would change with the arrival of the Varex facilities, when the ground glass focusing screen became accessible, and a range of various screens was supplied.

The leaflet 'Further Possibilities' revealed the latest developments that were available in 1952. In addition to the premature revelation of the Exakta 6x6, publicity was given to 'Vielzweck'. This was a group of several component parts using, as a basis, a bellows attachment between camera and lens, mounted upon a guide rail. A picture is better here than a thousand words!

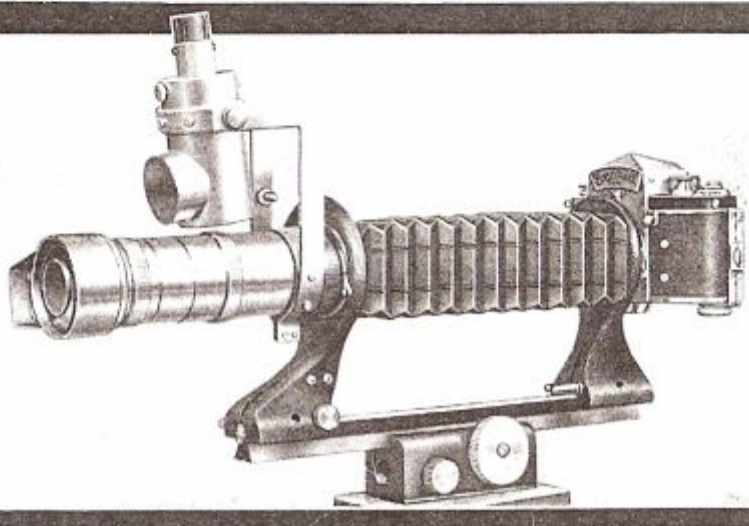




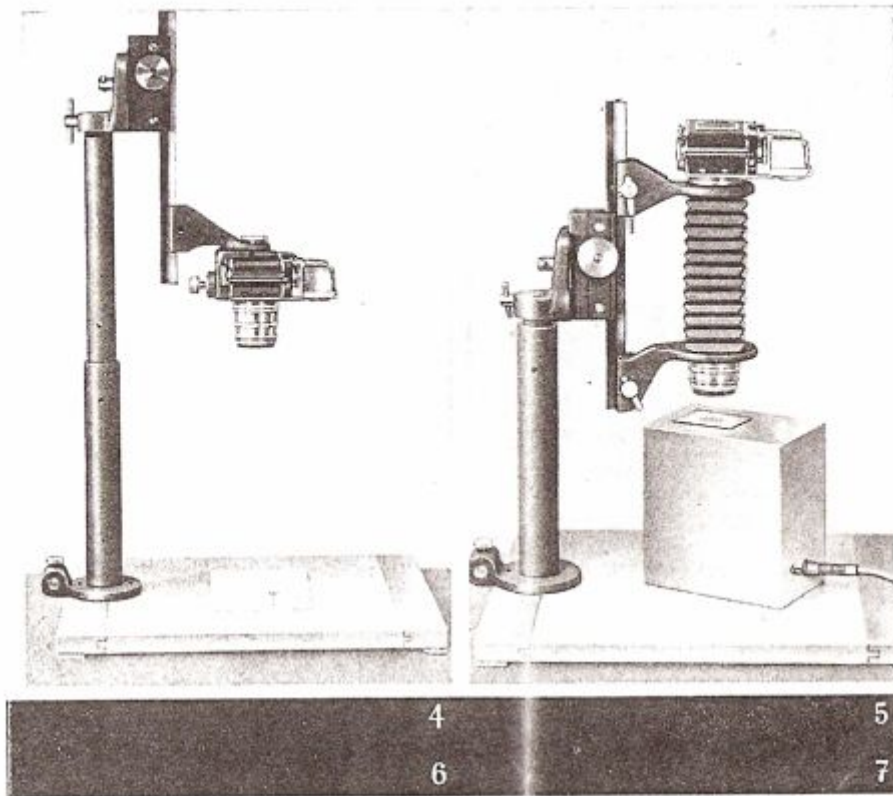
(1) A basic set-up for close-up photography. This can be mounted on a tripod, or vertically on a copying stand.



(2) Duplicating of colour and black and white transparencies. Film strips and mounted slides are accommodated, and an addition bellows keeps out extraneous light.

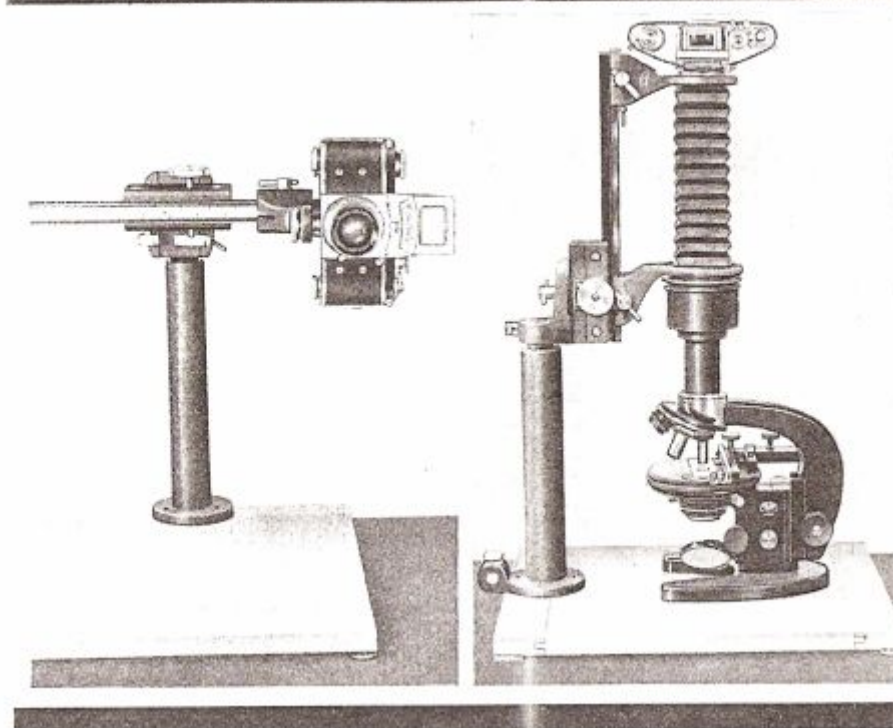


(3) Medical pictures of body cavities is possible with the addition of 'Kolpophot'. This allows gynaecologists to make inter-vaginal pictures, or dentists to make pictures of the inside of the mouth. The Triotar 135mm lens is used, and electronic flash with a ring-tube surrounds the lens.. A pilot light is used for viewfinding and focusing.



(4) An arrangement for copying documents or photographs. The copying stand has an extendable column, and extension tubes or bellows may be used, Supplementary lighting was available too.

(5) Using a light box, the camera can approach a subject even at the shortest distance.



(6) Using the copying stand as a table camera stand – vertically or horizontally. Using the horizontal rail and vernier control, stereo photographs may be taken.

(7) The camera and microscope are here used together without being connected each to the other.

The early versions of Vielzweck were produced in a black crackle finish, but in later years the ensemble was produced in pale blue.

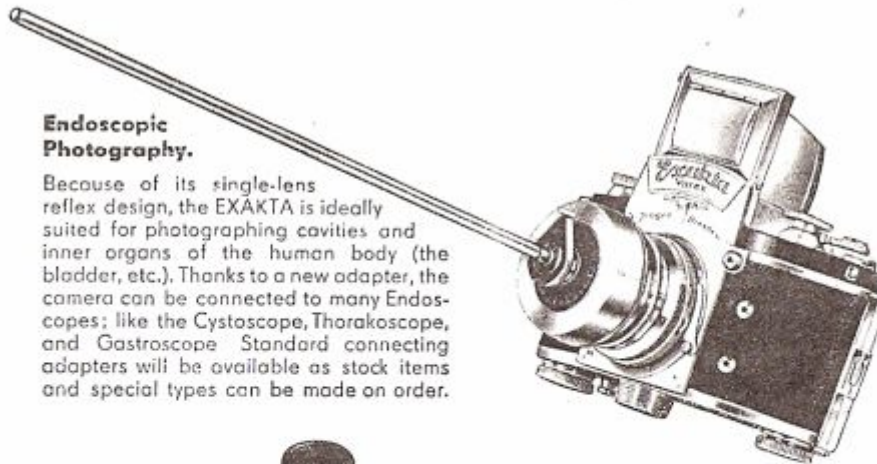
It was at this time that the focusing lens in the pentaprism (which, as mentioned earlier, had become removable), could be replaced by a 'Zeiss Distance Meter'. This focusing screen for the pentaprism had a circular space in the centre of an otherwise plain ground glass. Two tiny prisms were used to give a

split image aid for focusing. The photographer has to focus on a vertical line within the picture, and bring the two images into line to indicate precise focus.

Many more accessories then followed, some of which are illustrated:

Endoscopic Photography.

Because of its single-lens reflex design, the EXAKTA is ideally suited for photographing cavities and inner organs of the human body (the bladder, etc.). Thanks to a new adapter, the camera can be connected to many Endoscopes; like the Cystoscope, Thorakoscope, and Gastroscope. Standard connecting adapters will be available as stock items and special types can be made on order.



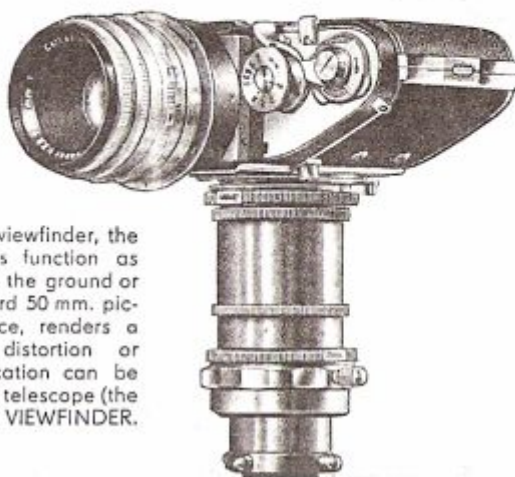
Stereo Photography, single exposure.

With the Zeiss-Stereo-Attachments, the Exakta makes Stereo Photography an easy and simple matter. The picture has the 24 x 36 mm. size and each of its halves is one of the stereoscopic images. Stereo pictures of moving subjects are possible without difficulty. For focusing and composing the stereoscopic pictures, a special stereoscopic viewfinder has been designed, which renders a three-dimensional image already in the stage of viewfinding. The stereoscopic viewfinder is instantaneously interchangeable with the regular viewfinders on the Exakta. This stereoscopic viewfinder (when not on the camera), may be used as the viewer with which to inspect the finished transparencies.

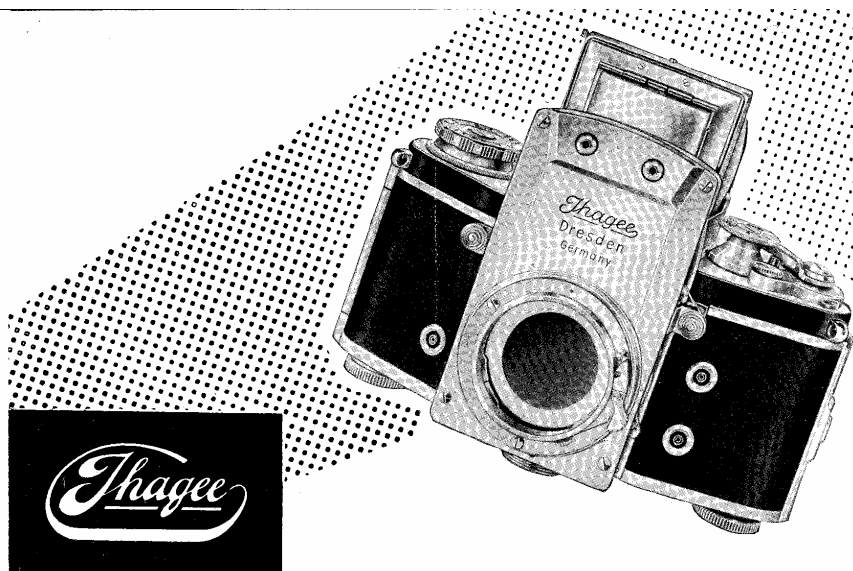


Macrophotography and Photomicrography.

Such pictures taken from extremely short distances require an unusual degree in precision focusing and critical sharpness. For such cases, a special SCIENTIFIC VIEW-FINDER is available. With this viewfinder, the Exakta's picture taking lenses function as magnifiers of the image seen on the ground or clear focusing glass. The standard 50 mm. picture taking lens in this instance, renders a 5 x magnification, without distortion or aberration. Additional magnification can be obtained when holding a pocket telescope (the Zeiss Tellup) over the SCIENTIFIC VIEWFINDER.



Reproduced directly from the Ihagee leaflet
'Further Possibilities' 1952

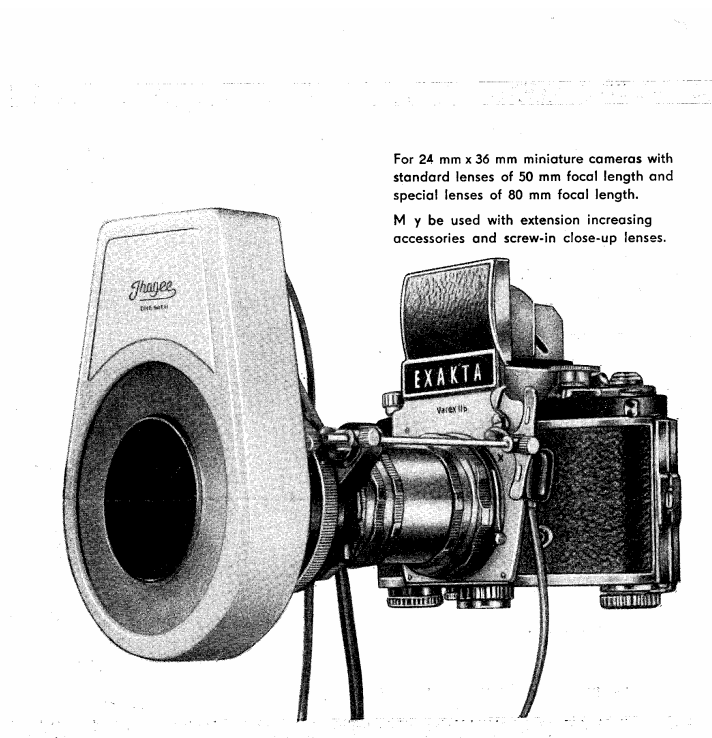


The Ihagee Macro-Micro Photometer

This 1959 leaflet introduced Ihagee's approach to the question of "Through the Lens Metering", a topic addressed and patented by Karl Nüchterlein in 1939. This accessory fits between camera and lens, (or other accessory), and when the selenium sensor is slid down behind the lens, a reading is taken on an attached ammeter. Not quite as sophisticated as Nüchterlein's approach.

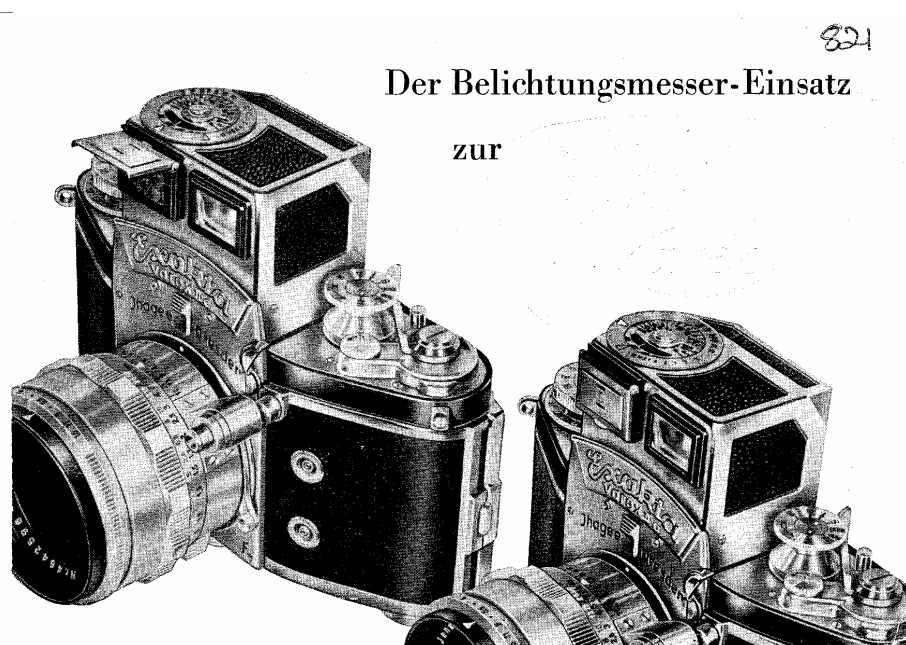


Ihagee produced flash equipment for both amateur photographers, as shown here, and also specialist items for use with close-up or medical equipment, such as "Kolpophot", illustrated previously with the Vielzweck equipment. The Blitzleuchte used conventional flash bulbs.



Ihagee- RB 2 Ring-Flash Unit

One of a pair of electronic ring-flash units that were provided for close-up photography.



A metering prism where the conventional pentaprism viewfinder could be replaced by this accessory, providing an exposure meter reading. This was not, however, through-the-lens metering.

(iv) The Crucial Letters from the Communist Government

1.

| | |
|--|---|
| Copy | Dresden, 30 May 1947 |
| Certified Copy Saxon Regional Government | |
| It is hereby confirmed that the following asset | |
| Ihagee Kamerawerk AG Dresden | |
| that until now has been under threat of seizure or sequestration, is not proposed for transfer into the hands of the federal state of Saxony through the referendum of 30 June 1946. Under the order of the High Command of the SMA in Germany of 21 May 1946, all commercial undertakings standing under threat of seizure or sequestration are available for expropriation and the right of their disposal is given over entirely to the federal state of Saxony. The Saxon Regional Government, therefore, in exercising their powers so granted of returning expropriated assets to their previous owners, according to proposals now agreed and accepted of a committee of the Antifascist-Democratic Party and of the Free German Trades Union Congress in regard to these above-mentioned assets, has returned these above mentioned assets to their former owners. | |
| The regional government expects that the former owners will see a proof of the trust of their government in the return of the above mentioned assets, and it does all this to justify their trust in the democratic autonomous government of the state. | |
| The return of the previously seized assets will follow the levying of a government charge which will be fixed and collected by the undersigned government official. | |
| Stamped at: Regional Government of Saxony Ministry of Economic Planning | Selbmann Regional Government of Saxony |

2.

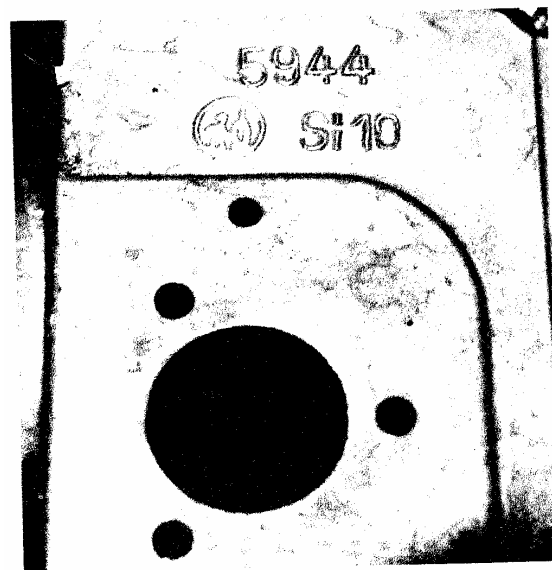
| |
|---|
| Regional Government of Saxony |
| To: Ihagee Kamerawerk AG, Dresden A16 Blasewitzer Straße 41/43. |
| Under Order No. 64 of the High Command of the Soviet Military Administration in Germany, dated 27 April 1948, the seizure of your assets under the provisions of Order No. 124 of 30 October 1945 is rescinded with effect from 30 April 1948 |
| Dresden, 1 July 1948 |
| Minister of the Interior Regional Government of Saxony |

(v) Druckguß Heidenau – diecast body parts.

Peter Heimbach wrote in Exakta Times 25, December 1996, about the link between Druckguß Heidenau and Ihagee, that had lasted for decades. It seemed that all cast alloy parts that had been needed for cameras and for a lot of accessories had come from Heidenau, a small town to the south-east of Dresden. In actual fact, Heidenau was the registered address of the Company, but the actual production was in Dohna, nearby. The company trade mark, (below) first introduced in the forties, illustrates an operator at a pressure casting machine with a vertical format. (Later they used horizontal pressure casting machines.)



This trade mark can be seen on a lot of Exa/Exakta waist-level finders. The 10 in the circle or the "Si 10" indicates the type of alloy used, and a four figure number identifies the mould used. On camera bodies, the mark may well be hidden under the leather trim.



Part of the alloy body shell of an Exa Ib that Peter Heimbach found in the (then) derelict Ihagee building, Blasewitzer Straße. Note the trade mark, the Si 10 sign and the mould number 5944.

(Peter Heimbach)

The Dresden camera industry was the most important customer, including not only Ihagee but Pentacon and other companies. Pentacon then built a pilot installation for pressure casting at Reicker Straße. With the merger of Pentacon with Zeiss Jena in 1984, Druckguß Heidenau lost its most important market, because Carl Zeiss Jena had its own factory for alloy casting in Eisenberg. After that Druckguß Heidenau mainly dealt with orders from the electrical industry.

Reference.

I have made reference in the preparation of this work to many sources. I list them here, in no particular order, or rank of importance:

- The catalogues published by Ihagee from 1912 to 1939
- The catalogues published by Garner and Jones, the importing agents in London during the 1930s.
- Advertising by Ihagee in countless magazines in Britain and abroad throughout the period covered by this account.
- The many publicity leaflets and brochures published by Ihagee, both before and after World War II
- Articles written in Exakta Times and Photographica World by the author and many other members of the Exakta Circle, and Ihagee Historiker Gesellschaft.
- Illustrations have been used from many sources, including Ihagee publications, photographs supplied by members of the Exakta Circle, an archive of pictures, accumulated by me over the past 30 years, a set of pictures given to me by the late Peter Heimbach, at least one picture taken from the internet, and of course my own pictures.
- The book '*Spiegelreflexkameras aus Dresden*', by Richard Hummel, Edition Reintzsch, Leipzig 1994 ISBN 3-930846-01-2
- The book '*Geschichte der Dresdner Fotoindustrie*', by Herbert Blumtritt, Lindemanns Verlag, Stuttgart 2001 ISBN 3-89506-212-X
- The book '*Exakta Collection*' by Clement Aguila & Michel Rouah, DDP Image Editions, 2003, ISBN 2-9519891-0-5
- The book '*Johan Steenbergen – De lachende diplomaat*' by E.H. Halbertsma, Steenbergen Stichting, 's-Gravenhage 2000, and also a shorter version in English – '*Johan Steenbergen, Industrialist and Diplomat*'
- The film '*Exakta – The Rise and Fall of a Legendary Camera*', a Documentary film by Dr. Gunter Eiselt, Eiselt film Dresden 2001
- '*The Collector's Checklist of Exakta and other Ihagee Cameras Lenses and Accessories*', compiled by Dr. A. Neill Wright with Ivor Matanle 1975 and 1978
- '*The Exakta Times*', the quarterly journal of the Exakta Circle, edited by Peter Longden and Michael Spencer, starting in 1990, and continuing in 2008. This contains a mass of articles and various other contributions. Specifically, letters from Werner Wurst to Peter Heimbach and Dave Wodinski, and articles by Richard Hummel. Over a similar period the

Exakta Circle has amassed much material and illustrations for reference, which has also been drawn upon.