

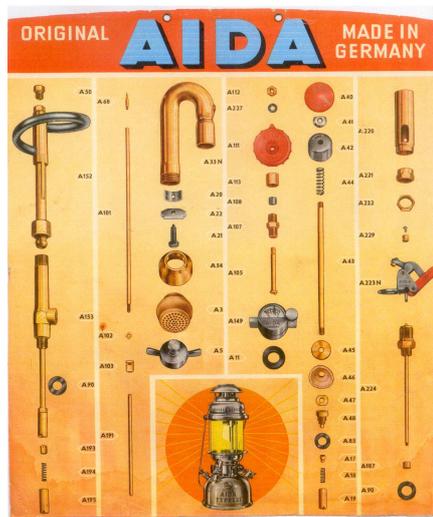


1906 - 1980

Hirschhorn-Aida-Graetz.

A BRAND between 2 companies.

A.Kaim



Hirschhorn



Aida-Gesellschaft



Graetz



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A.Kaim



Introduction

The long German company name “**Aidagesellschaft für Beleuchtung und Heizung m.b.H.**” (in short: “Aidagesellschaft ” (= Aida Company) indicates that this company not only was focussed on production of lighting and heating, but also that the name **Aida** played an important role. This is not strange because that brand name had proven to stand for quality. In the underlying writing “**Aida**” is the red line we follow.

The Aida company was formed in **1928** when it was split from **J.Hirschhorn AG** (1868-1934), Köpenickerstrasse 149 in Berlin, which owned the **AIDA** brand since 1906.¹

The rights to this brand, together with 20 other brand names, were officially taken over in Germany at 28 June 1929 by the “Aidagesellschaft für Beleuchtung und Heizung m.b.H.”. The specific Hirschhorn logo, a *jumping stag with a horn around it's chest* was also one of these.²



The Aida Company was established in Berlin at the Alexandrinestrasse 27. We don't know exactly who the owners were, but according to Herman Lahde, an employee of **Ehrich & Graetz (E&G)** in the period 1926-1945, it was mainly in the hands of that Berlin lamp manufacturer.³ What we do know for sure is that E&G took a dominant place in the history of the “Aida Company”.

Period 1906 - 1945

To start with: as far as I know the **lighting department** of the Aida company produced from the very beginning mantle burners, pressure lamps/lanterns and all the necessary spare parts.

I don't have information regarding the **heating department**. But this is not relevant in this writing.

When the Aida Company started in 1928/29 they naturally continued with what was developed by Hirschhorn during the years before.

This included the Hirschhorn *mantle burners* developed in 1906 (*Appendix XVI, purple Column*) and the Aida *pressure lamps* developed in the first half of the 1920s (see page 5).



Pict. 1



Pict. 2

The early Hirschhorn mantle burners

The Aida mantle burner was patented by Hirschhorn in 1906 (DE 200301-1906) and market soon after that (*Appendix XVI, purple column*).

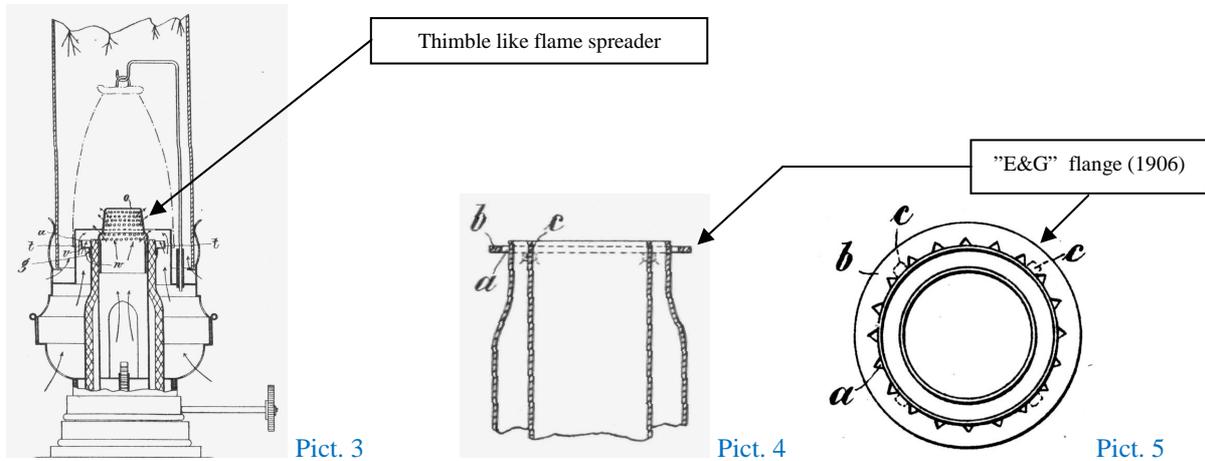
Roughly there are two well-known versions (*pict. 1 & 2*):

- The “**Aida**” (a side-draught burner (SD) for common lamps **WITHOUT** a vertical air tube through the font), and
- the “**Carmen**” (a centre-draught burner (CD) on a lamp **WITH** a vertical air tube through the font).⁴ Burner and lamp are one complete unit (see Appendix XI).

Both burners exhibit the latest design features of those days.



Almost every newly developed mantle burner was then, in 1906, supplied with a **thimble-shaped flame spreader** (*pict. 3*) and a flat ring or **flange** (*pict. 4b and 5b*) for bending of the air stream at the top of the outer wick tube. ⁵



The mantle burner flange in common

The task of such a flange, a sort of ring shaped disk, connected around the top of the outer wick tube, is to direct a horizontal air stream, slightly above the wick – course on the upward coming mixture of air and fuel vapour (*pict. 4*). The flange also widens the flame at the side of the wick.

This all creates a hot, blue, **‘Bunsen flame’** which has the right size and shape to fill the mantle.

The flange is therefore a very important part of a mantle burner!

E&G ‘Eugeos’ flat flange for example

A disadvantage is however that the upper side of such a flange, could become carbonized (covered in hard black deposits) due to its high operating temperature and turbulence in the ‘gas’ flow.

It would be preferable to construct a flange with small openings which provide a cooling stream of air and also prevent undesirable turbulence (see ‘a’ in *pictures 4 and 5*). ⁶

Pict. 6 Aida



The Hirschhorn flange

The typical **Hirschhorn** flange was unique. It was **L-shaped** and had narrow vertical rectangular slots all around. Difficult to make, but working perfectly well. Through those grooves the cooling air could come in, also preventing those undesired air currents (*pict.6*).

Disadvantage

During the years another problem was noted. The flange gets very hot as it absorbs radiant heat from the mantle above.

Being attached at the outer wick tube, a lot of this heat is then conducted to the tube and thus to the wick. The effect of this is that the flame ‘grows’ as the burner heats up, and the

heated wick evolves more vapour. If the wick is not adjusted (turned down) the burner will smoke and carbonize the mantle. This is not a desirable feature, so an improvement was designed.



Improved flange

A solution was to **not** attach the flange to the wick tube, but to suspend it from the underside of the gallery on top of a baffle (*pict. 7* and Appendix II).



Pict. 7 Model 1922 Aida



Pict. 8 Sunlight / Carmen

This way the flange is in the right place, does the same job, but does not touch the wick tube so that heat cannot be conducted to the wick tube. In addition, the small space created allows an extra stream of cooling air to the flange and wick tube. Problem solved.

“Hirschhorn” manufactured burners with the suspended flange in the early 1920s.

These were sold in the UK by the Welsbach Co. under the name *Sunlight* (*pict. 8*) and in the USA under the name *Conia*.⁷ But they were sold under other names as well.

The Hirschhorn Aida pressure lamp

According to H.Lahde Hirschhorn came to the market as early as 1922 with the *Aida* pressure lamp. One of the first was the Aida 214 (*pict. 15, page 8*).

Some of the typical characteristics of the Aida were the vaporizer tube with the spiral shaped super heater coil (*pict.12, page 4*), the round holes in the frame just above the fount (*pict.15, page 6*), the ‘inner casing’ under the hood having a ‘bridge piece’ made of a square tube (*pict. 9*), the flat topped fount and the somewhat coarse version comparing with the later Petromax.

The Aida was very successful and proved to be a ‘trendsetter’ for the European market.

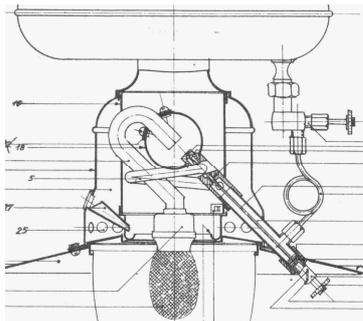
Later, in 1926, the *Petromax* lantern was based on **that** design, which is why the two are so similar.

Unfortunately I couldn’t get any confirmation on H.Lahde’s information, not by a patent nor by any other official document from 1922. Here I have to rely on his expertise.⁸

Pict. 9



Pict. 10.



A 1924 Hirschhorn patent

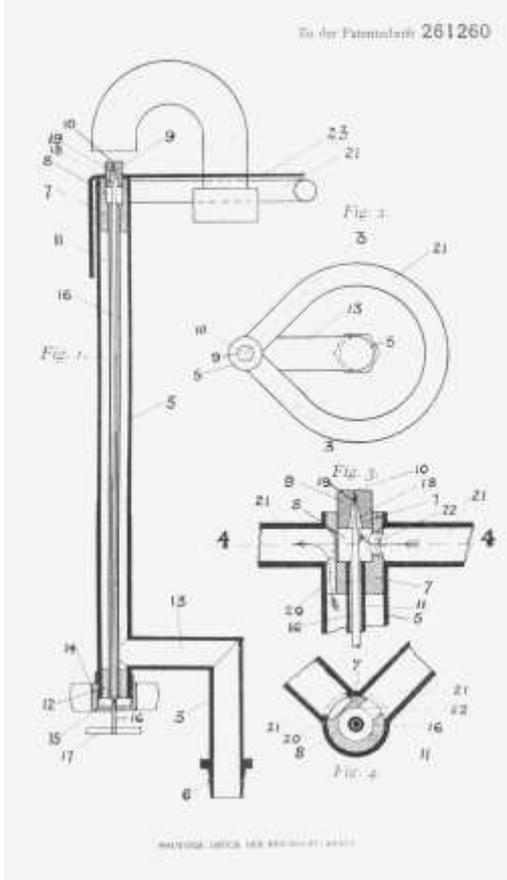
There is, though, a Hirschhorn patent dating from 1924, relating to a pressure hanging lamp (DE 435516–1924). In the drawing there is a sloping vaporizer, with at the top the spiral shaped super heater coil. This **spiral shape** is therefore applied to the Aida for the first time (*pict. 10*).

But strictly speaking this Hirschhorn super heater is a variation of the one the Australian *J.C.Preston* invented in 1910 (DE 261260–1910).



The workings of the Preston super heater

In the upper part of the vertical vaporizer tube (*pict. 11, 5*) the gassed fuel is being forced first to go through a horizontal circular tube around the top of the mantle. In this way the uprising heat of the mantle is used to the maximum to heat the gasses.



Pict. 11 Preston German patent drawing.

The super-heated gas goes to the nozzle at the top of the vaporizer tube (*pict. 11, 9*) from where it is injected into the U-shaped mixing tube.

Perfect design

The Preston super heater is actually a perfect design. The only disadvantage is the, relatively speaking, high number of parts of which it's made.

As far as I know the Preston super heater has never come into production during the currency of the patent.

The exact expiration date of the patent is unknown to me. It was usually for a maximum of 16 years after the patent had been applied for, but a shorter period is possible too!

That would mean that the free use was only possible in 1926 at the latest. That approximately links up with the year 1924 of the above named Hirschhorn patent, but it also doesn't exclude the date H. Lahde gave us (1922).

The Hirschhorn/Aida super heater

The Aida super heater is a simplification of the one designed by Preston.

The workings are about the same, but the construction is less complex because of its spiral shape, and it is constructed with fewer parts. A great success (*pict. 12*).

← Pict. 12



It was so successful that 4 years later **E&G** adopted this construction in the **Petromax** with even lesser parts.

A difference between the earliest Aida super heater top and that of the later Petromax was in the shape of the nipple and needle holder. The ones by the Aida were square, the ones by the Petromax were hexagonal respectively triangular.



This way they were not compatible.

The Aida preheater cup

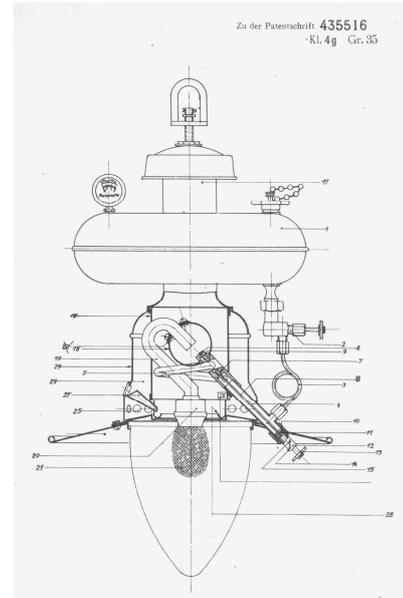
The old Aida spirit preheater cup was placed at the foot of the vaporizer tube and was in 3 parts: a narrower and a broader tube attached to a somewhat larger container. The tubes had an opening at the bottom, through which the spirits could evenly spread.



At the moment when only a flame burns between the inner two tubes, the lamp is efficiently preheated.⁹

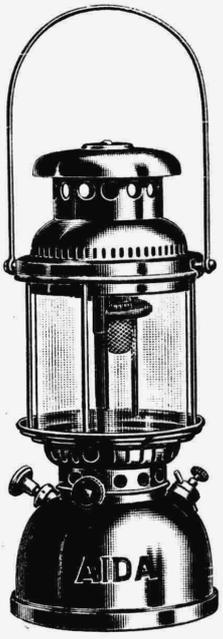


The Aida inverted pressure hanging lamp
 Since 1907 the Hirschhorn Company produced outdoor mantle hanging lamps for liquid fuels like spirit and kerosene. These lamps had no pump. The long length of the lamp was enough to produce a low pressure by itself. The earliest of these lamps used upright mantles but around 1910 it changed into the usage of inverted mantles. As far as I know Hirschhorn manufactured in 1924 for the first time an inverted **pressure** lamp using a pump (DE 435516). According to H.Lahde that lamp was called Aida. (see also Appendix V).
 Some of the interesting features were the coiled super heater and the use of a cleaning needle (pict.12a and Appendix V).



Pict. 12a

"AIDA" Hurricane Lantern



These lamps are provided with a glass chimney and soft silk mantle and are packed complete in a strong cardboard box. To each lantern are added a spanner and some of the necessary spare parts.

The ideal source of light for the illumination of streets and squares, market-stands, show-places, boat houses, landing places, hunting boxes, country houses, farms, bungalows, railway-stations etc.

Brass, Highly Polished. N.P. finish.

No.	Capacity.	Burns.	Candle Power.	Each.
214 L	1 3/4 pints	12 hours	300	50/-

Pict. 13. Part of a Millbro advertisement. Acquired via Alan Moore.

Catalogues, brochures and manuals
 Unfortunately there is not much direct information left from the earliest periods.
 Catalogues, brochures and manuals concerning the early Aida/Hirschhorn/Aidagesellschaft etc. are currently unknown to me (2008). I have found only one advertisement of a pre 1928 Aida 214L but have no idea about the meaning of the 'L'. (pict. 13).



In 1928/1929

In relation to lighting Hirschhorn made perfect preparations with the start of the Aidagesellschaft etc. Those were:

- A few internationally renowned and perfect working Argand type mantle burners, namely the **Aida** (Torex / Radium) SD (pict.1), and the **Carmen** (Sunlight / Conia) CD (pict. 14);
- A perfect working pressure lantern (**Aida**) (pict. 15);
- An inverted pressure hanging lamp (**Aida**) (pict. 12a and Appendix V);
- A production line to produce all the important parts by themselves;
- A worldwide 'own' market.



Pict. 14. The Sunlight (Welsbach 1920s cat.)



Pict. 15. Aida 214 (Dirk Frieberg)

The only things that were NOT produced from the beginning with the “Aidagesellschaft etc.” were the mantles.

Aida mantles

Manufacturing of Aida mantles was boarded out to specialised companies (*pict. 16 & 17*).

Successively those were:

- **Diamco** Aktiengesellschaft für glühlicht, Berlin (from 1929 to 1932);
- Deutsche Gasglühlicht **Auergesellschaft** m.b.H, Berlin (from 1932 to 1939);
- **Diamant** Gasglühlicht AG, Berlin (from 1939 till the end of WWII);
- **Auergesellschaft** AG, Berlin (from 1953).¹⁰



Pict. 16. ('Diamant' 1939)



Pict. 17. ('Diamant' 1939)

E&G influences on the Hirschhorn mantle lamps in the early 1930s

As said earlier the influence from Ehrich & Graetz AG grew with time.

This was noticeable by small, yet important changes in the inner construction of the Argand type **Aida/Sunlight** mantle burner. In 1930 the Hirschhorn flange (*see pict. 6*) had to make room for the typical 1928 E&G (Esso/Famos) flange. The latter was a part of the 120 cp **Esso/Famos** mantle burner, which was developed in 1928 and improved in 1930 by “E&G” (*Appendix XVI, green column*).

The renewed ‘Aida’ was offered on the British market from the early 1930s on and was sold under the name **Super Sunlight** by Welsbach, and sold under the name **New Millbro** by Millbro.¹¹ (*See also Appendix XVI, purple column*).



E&G influences on the Hirschhorn pressure lamps in the early 1930s

The pressure lamp didn't escape some Petromax influences either.

In the early 1930s, in the Aida 215 the square tube as found in the older 214 lantern was replaced by an "open bridge piece" with air chamber for the vaporizer nipple and the U-shaped mixing tube (pict.21). The air chamber was spot welded at the chimney. As usual the U-shaped mixing tube was held on its place by two flat nuts clamping it in the middle of the "open bridge piece" (pict. 20 and 21).



Pict. 18 Aida 214

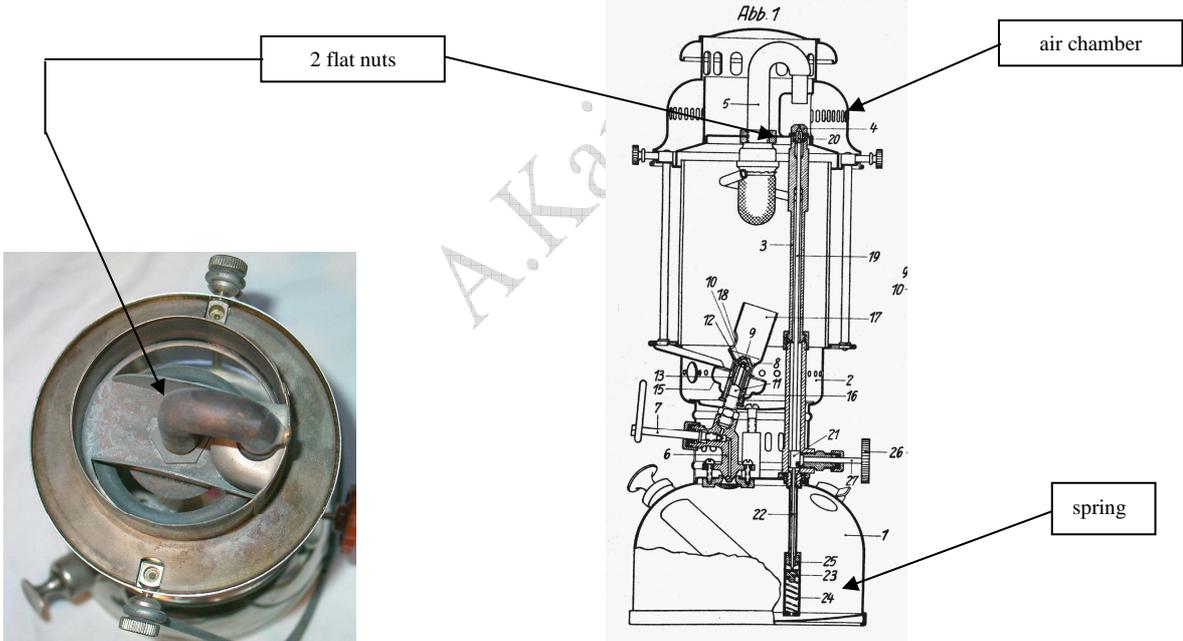
Also the pump knob was made simpler. The one on the 214 was larger, hollow and supplied with the picture of the jumping stag on top (pict.18); the one on the 215 was smaller, massive and without any picture (pict. 19).



Pict. 19 Aida 215

Influences from the old Aida

Beside the shape of the lantern were the two flat nuts, which clamp the U-shaped mixing tube at the "bridge piece" on the prescribed height, in use in all the Aida models and later in all the Petromax models as well (pict. 20 & 21); this all until 1952 when it definitively changed.



Pict. 20 Aida Express

Pict. 21 1935 Petromax (with early preheater)

That construction with the flat nuts is also shown in some of the E&G patents from 1935 (DE 630261-1935 and DE 634322-1935).

Interesting feature

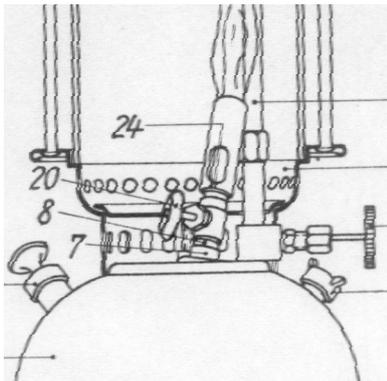
German patent DE 630261-Feb.1935 (pict. 21) contains also an interesting feature which we can use to determine **Petromax** and **Aida** lanterns from before and after 1935.

The main fuel tube (22), which is **in** the fount, is from now on controlled by a valve pressed to its seating by a spring. By rotating the operating disc (26), which is on the side of the lantern, a thrust rod is operated to open the valve at the same moment the cleaning needle is withdrawn from the vapour nozzle. In closed position the spring controlled valve works as a safety valve because it will lift if the pressure in the vaporizer exceeds that in the fuel container. So a lamp using this feature was made **in** or **after** 1935!

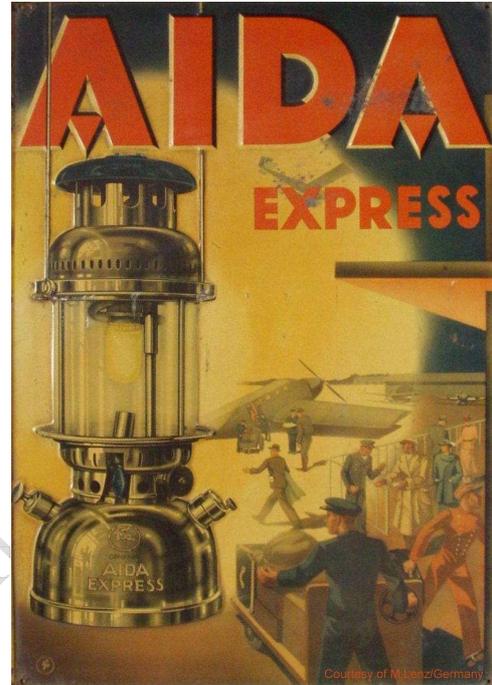


Preheater with turn able valve

On the 10th of September 1935 Ehrich & Graetz was granted a patent (pict.22) on a new type of preheater for pressure lamps and stoves. It was based on a 1934 invention of M.G.Anderson of Denmark. This preheater uses a mix of pressed air and kerosene vapour out of the fount and it has a distinctive long small blue turn able valve knob. It was brought in 1936 onto the market under the name Petromax Rapid. Fortunately for me I got in May 2008, from the German lamp collector **Michael Lenz**, the advertising of the same preheater but now on an Aida Express pressure lamp. Again a proof of the direct influence of Ehrich & Graetz on Aida lamps. (pict.23 and Appendix VI, VII and VIII).



Pict.22. DE645164 patent drawing



Pict.23. 1935/6 Aida Express advertising (courtesy M.Lenz).

Inverted pressure hanging lamps:

Regarding the developments of the Aida inverted pressure hanging lamp I have yet, again, not much information (2008). Hermann Lahde tells us that the 1924 lamp came too late on the market to compete with the Petromax which was in those days actually the market leader.

We can easily guess that after 1928, after Hirschhorn stopped the lamp production, this Aida also came under the influence of E&G.

An users manual of 1937 confirms this. It shows at the front page a typical E&G lamp with some small Aida features like the 2 spurred fuel valve (the Petromax had a 4 spurred valve) and the jumping stag at the knob of the hinged door at the front of the lamp.

The front page mentions 6 lamps (pict.24).

The smallest (Nr. 244 and 246, see also Appendix X) produced about 200 cp, the medium lamps (Nr. 245 and 247) about 400 cp and the largest ones (Nr. 248 and 249) about 800 cp.

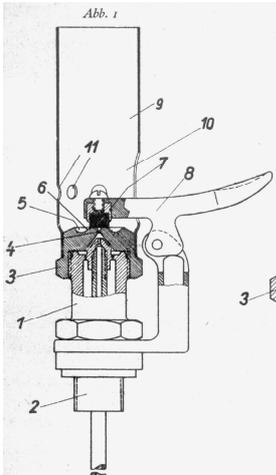
In 1936 E&G AG is formally the owner of the Aidagesellschaft etc.¹²



(Pict. 24).



The 1939 preheater



Pict. 25. 1939 preheater

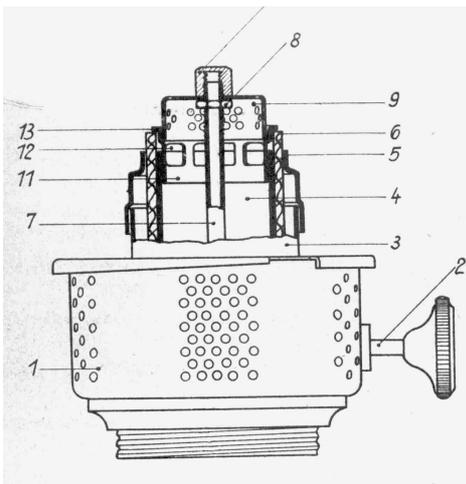
From around 1934 E&G was busy with the development of a cheap and effective preheater for their pressure lamps. Progress was made, but it took as long as till autumn 1939 before the best functioning design, the one with a zinc-alloy 'tumbler' (DE 700213-1939), was brought into production at a large scale (pict. 25). This type of preheater (also called an "Anderson type preheater") is found on Aida pressure lamp models from before 1954 (pict. 26).



Pict. 26.

The very rare 100 cp Esso mantle burner (Appendix XVI, yellow column)

At the end of the 1930s a final major change was made to the E&G *Esso* (Famos like) mantle burner (see pict. 27 and 28) and therefore also to the *Aida*.¹³



Pict. 27. 1937 type "Esso 100cp"(SD)

This change was necessary because by then in Germany there were two types of kerosene available, namely the American and the Russian. There was also a demand for a burner that could be 'retro fitted' to existing lamps, allowing consumers to benefit from the more economical mantle burner.



Pict. 28. "Esso 100cp"(SD) (J.Claypole)

The result was a 100 cp *side draft* burner (pict. 27 & 28) with an in height adjustable flame spreader (pict. 27) and therefore useable for both sorts of kerosene. This burner could be mounted on every kerosene lamp **without** a central draught tube through the font (patent DE 687139-1937). A clever design!

The end of the Aida mantle burners (Appendix VII, VIII and XVI)

Both, the *Esso 100 cp* (pict. 28) and the *Aida 100 cp* (pict. 29) were in production for a short period to be overtaken by 'war' and 'history'. In **2008** only two Esso burners and one Aida are known to me, **all incomplete**. A sad ending of such an interesting mantle burner.¹⁴



Pict. 29. "Aida". (L.Rusvai)



New address

The 1943 German “Warenzeichenblatt” (trade marks book) mentions that under number 553584 the trade mark *Aida*, and under number 553585 the logo of the *jumping stag with horn around it's chest* is owned again by the Aidagesellschaft für Beleuchtung und Heizung mbH. (*pict. 30 & 31*).

The new address is remarkable: *Elsenstrasse 87/88* in Berlin. This means IN the premises of *Graetz AG* (till 1942 *Ehrich & Graetz AG*).



Pict. 30.



Pict. 31.

The exact date of the move is unknown to me. The reason is also left to be guessed. It's also **unknown** to me whether or not they still produced pressure lamps at that time.

Patents and trademarks (1920-1945)

With regards to lighting (especially pressure lamps) there are only three German patents and four German trademarks c.q. logos that play an important role between 1920 and 1945.

These are the patents Nr. **435516-1924**; Nr. **461698-1926** and Nr. **513988-1927** and the trade marks Nr. 404838-1929 (**jumping stag with horn**), Nr. 404839-1929 (**AIDA**), Nr. 553584-**1943** (**AIDA**) and Nr. 553585-**1943** (**jumping stag with horn**).

Others have not been found yet by me.

Lamps and burners via the internet

As written above there are hardly any catalogue and brochures known.

Fortunately there are still some lamps and burners saved from that period which are in the hands of serious collectors and these also form a source of information.

Internet websites and the exchange of e-mail facts play an important role in this.

We can read for instance on the Aida page on the website of Alan Moore (2003) that there are at least 11 Aida pressure lamp models known (the **1233** is on the *collectors page*).

These are the 105, 214, 214L, 245, 1233, 1250, 1350, 1500, 5090 and 5091.

Also the (year 2003) website of Dirk Frieborg www.lampenmaxe.de supplies important details. Especially model 214. That model is a clear example of a pre-1928-type Aida (*pict. 15, page 6*).¹⁵

The in 2004 by Wim van der Velden found Aida 215 (*pict. 19, page 7*), which dates from after 1928, can be seen on his website www.petromax.nl.¹⁶

Period 1945-1960

After the war

At the end of WWII “Graetz AG” fell into the hands of the Russian occupiers.

The board of directors, since 1931 *Fritz- and Erich Graetz*, were dismissed. All their rights were confiscated.

Despite an attempt to take up the thread in October 1945, both brothers had to flee to the west. In spring 1948 they established a new company in West Germany, in Altena Westphalia, the *Graetz Kommanditgesellschaft* (for short *Graetz KG*).¹⁷



However, the **East-Berlin** “Graetz AG” remained the formal user-owner of all the old trade marks and patents rights, and the user-owner of all the remaining machines and tools in the Elsenstrasse. Here under the “Aidagesellschaft etc.” with everything that was left and belonged to that. Shortly after the war the name changed from **Graetz AG** into **Graetz AG-VEB**.¹⁸ On 4 February 1950 the name was again changed. It now became the **VEB Fernmeldewerk Treptow**. In **Berlin** at the Elsenstrasse Petromax lamps were manufactured until March 1950.¹⁹

Search for post war patents

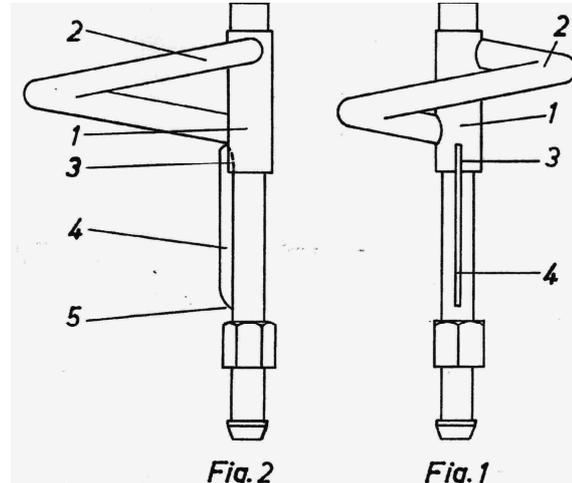
Despite an intensive search for post war lamp-related patents granted to the Aidagesellschaft etc, not a single one was found. Neither in Germany nor in the UK.

Instead I found several relevant Petromax patents which ultimately will show to be of great help dating post war Aida lanterns.

Relevant German patent developments

In the early 1950s the Graetz family in Altena was busy entering the pressure lamp market again. In May 1951 Graetz KG improved the Preston type vaporizer of the Petromax by connecting at the vertical tube a sheet of metal just under the super heater coil ('4' in pict. 32).

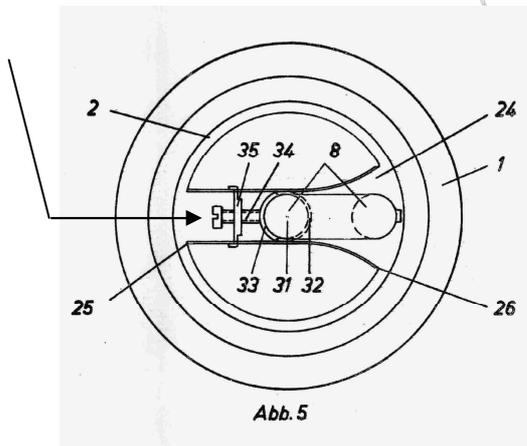
This was to prevent the bending of the tube caused by the heat of the mantle (see also Appendix VIII).²⁰



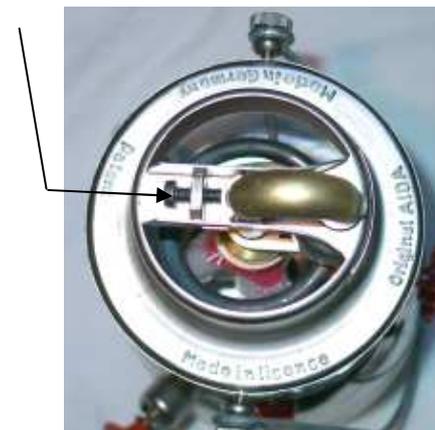
Pict.32. German 1951 patent

In 1952 they ‘economized’ the bridge piece under the hood of the Petromax lantern.

A screw is now pressing and holding the U-shaped mixing tube in the right place (pict. 33 & 34).²¹ This was the end of the use of the 2 flat nuts mentioned before.

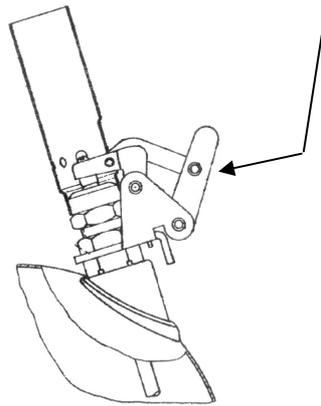


Pict. 33. German 1952 patent



Pict. 34. In reality

In 1954 they introduced an improved preheater valve. Again a tumbler model. This one was much more robust than its 1939 ‘zinc-alloy’ predecessor and with its brass parallel arms a real improvement (pict.35,36 & Appendix XI).²²

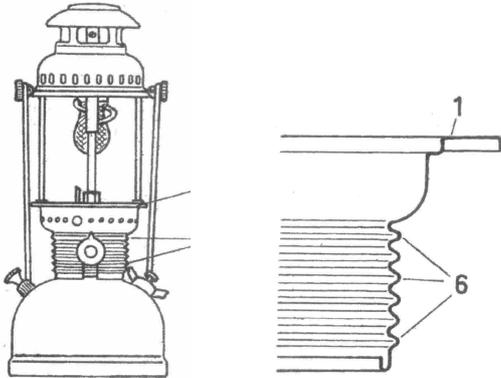


Pict. 35. German 1954 patent



Pict. 36. In reality

In August 1956 Graetz KG introduced at the 'frame' of the lantern, which is on top of the fount, annular cooling ribs (pict. 37 & 38).²³

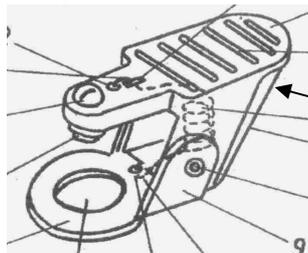


Pict. 37. German 1956 patent



Pict. 38. Cooling ribs

Ultimately they 'economized' in 1964 the preheater 'tumbler' valve for the last time (pict. 39 & 40).²⁴



Pict. 39. German 1964 patent



Pict. 40. The 1964 type preheater valve.

All those features were used on Aida lanterns too!!

Relevant German trademark developments

At the beginning of 1952 the name Graetz Aktiengesellschaft reappears in the German trademark books (=Warenzeichenblatt).

The 1952 dated version (Teil III, Alt-Warenzeichen) reports that Graetz AG, which is now established in **Hamburg** at the Burchardplatz 2a, obtained the old trademark **Petromax** (Nr. 139819-1911).

It also states that Graetz AG is a company for the





manufacturing of all sorts of lighting, cooking utensils and ovens. There under lighting products for gas, electricity, paraffin, spirits and petrol. According to “Graetz Nachrichten 1959” the Hamburg Graetz AG was *never* a self-producing’ company. As far as we now know (in 2008), Graetz AG was in the hands of the Graetz family itself.²⁵

A surprising address

In the same Warenzeichenblatt, but one page further, it’s said that the trademark *AIDA*, which originally dates from 1929, is now (1952) in the hands of the *Aidagesellschaft für Beleuchtung und Heizung mbH.*. Again surprisingly the address: *Altena, Westfalen*. The same address as that of “Graetz KG”!

All together in Altena



The Warenzeichenblatt continued with stating that the Aidagesellschaft etc. is a ‘Handelsgeschäft’ (a commercial enterprise).

They supplied (not made) ‘lighting articles for fluid fuels with matching parts, namely vaporizers, valves, mixing tubes, but also cooking- and heating utensils, ovens, and parts of those, except for mantles’.

The latter were supplied since 1953 by the Auergesellschaft again (see pict. 41).

1953 was also the year that in Altena the old brand, the picture of a **jumping stag with horn around it’s chest** was obtained.

Now both important trademarks were back together again.....*and* in Altena! It’s clear that from 1953 on, in Altena Aida lanterns could be made.

Pict. 41. 1953 ‘Auer’ mantle trademark (identical to the 1939 ‘Diamant’ trademark)

Confusing

The “Warenzeichenblatt” from 1954 shows us at page 529 a (black and white) image of a *sitting woman, who holds a burning pressure lantern in her hand*. Date 1952.

At the height of her lower legs we can read: *Original AIDA*.

The confusion is not that much in the image or in the legs of the woman, but in the name and the address of the one that has the rights to that image *Graetz AG, Hamburg!* (pict. 42)

An old acquaintance

Finally the same 1954 “Warenzeichenblatt”, tells us a few pages further, that the Aidagesellschaft etc. of *Altena* obtained the former Hirschhorn trademark *Carmen* on 29 June of that year.

Except that this trademark was meant for mantle burners, it now also applies to hurricane lanterns, pressure lamps, manometers, vaporizers and vaporizer needles.



Pict. 42

Regarding Aida no other German trademarks after 1954 have been found by me!



Relevant USA (Uspto) trademark developments

According to information from the United States Patent and Trademark Office (USPTO) in 2004, the first commercial use (after WWII) of the trademark AIDA was in 1955.²⁶

This means that, according to the USPTO, Aida lamps came into production again in 1955!!

A side step: determination of some Aida pressure lamps by using the above information

Let's take for example a post WWII Aida lantern and see if we can use the new acquired information. In this case I use an *Aida Express Record 1250, 250 cp* (pict. 43 & 44).

Looking under the hood we can see what kind of bridge piece is used.

As showed in **picture 44**, this is of a kind which was patented in 1952 by Graetz KG.

So that top must have been made in- or after 1952.

The 1954 type preheater 'tumbler' valve tells us that this item was produced in or after 1954 (pict. 43).

The lack of the annular ribs in the 'frame' on top of the fount tells us this part was produced before 1957 (pict. 43).

With the USPTO information in mind we may conclude that this Aida lantern was produced somewhere between 1954 and 1957.



Pict. 43.



Pict. 44.

Licence

We can read at the top of the same lantern: **Made in Licence** and **Patent** (pict. 44).

We know that the **patent** (of course of the "bridge piece with screw") was in the hands of Graetz KG. The question is now: who was actually the maker of the lantern and who the licence holder?

I am not sure about it, but with the above in mind the maker could be Graetz KG and the licence holder(s) both the Aidagesellschaft etc. and Graetz AG from Hamburg i.e. the Graetz family.

Pict. 45

A second example

Let's take another example. In this case an **ORIGINAL AIDA EXPRESS model 1250, 250cp** and see how far we can get now (pic.45).

Picture 20 on page 8 shows us the inside under the hood of that lamp. The method of clamping the mixing tube with 2 flat nuts dates, as we have seen above, from before 1952 (actually from before 1930).

The zinc-alloy 1939 type preheater 'tumbler' valve (pict.45) tells us that this part was produced in or after 1939.





The vaporizer tube has NO vertical ‘sheet of metal’ under the super heater coil. It suggests that this part was produced before 1951.

The vertical slotted holes in the frame above the fount together with the metal knob on top of the pump rod direct us also to a time from before the early 1950s.

This all suggests this lantern was made somewhere between 1939 and 1951.

Lets go a step further:

We learned above that it took until 1953 until the Aidagesellschaft etc. **possessed** both Aida trademarks again.

But this lantern already HAS BOTH marks!

Well, that means that this particular lantern model **NOT** could have been made in Altena!!!

To my opinion in that case 3 reasonable possibilities are left: it was made **before** 1945 by the **Aidagesellschaft etc.** in Berlin, OR **after** 1945 by its successor **Graetz AG -VEB**, or perhaps by an **Aidagesellschaft etc.-VEB** in Berlin. The latter would be new to us and is here pure speculation.

All are possible but my guess is (because of the **red plastic** operating disc on the side of the lamp) to the period after 1945, i.e. to **Graetz AG -VEB**, Berlin. Seen in this light the word “**ORIGINAL**” in “Original Aida Express” might suggest its **origin** in Berlin too!!

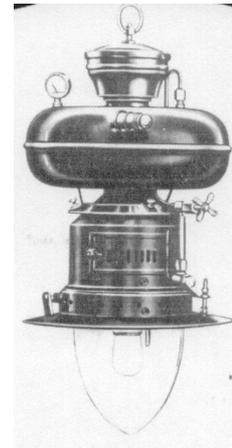
End of the step aside.

We continue

The silence in the German trademark books after 1954, as noticed above, was not the end of the production of the Aida lamp.

It rather points to a new beginning.

It only states that around 1954 in regards to the trademark rights conditions were met to come in (or on behalf of) Altena to production and assembly of Aida lamps.



The inverted pressure hanging lamp:

In the 1950s, special in rural area’s were electricity not had arrived, there was a vast demand for all kinds of kerosene and petrol appliances. The Far East was the largest market. Where much light was wanted the inverted hanging lamp could fill in the demands. Petromax and Aida had still their own specific export areas but as far as I know both inverted pressure hanging lamps now only differed in names (pict.46). The production of these remarkable lamps ceased somewhere in or around the 1960s.

Pict. 46 Aida

Partially ending

On 15 July 1960 officially all previous trademark rights from the Aidagesellschaft für Beleuchtung und Heizung mbH. were transferred to the name of Graetz Kommandit-Gesellschaft, Westigerstrasse 172, Altena (West Falen).

The “Aidagesellschaft etc.” permanently disappeared with that into Graetz KG and ceased to exist.

Luckily that didn’t mean the end of the Aida pressure lamps!

Pict.47

Period 1960-1979

Final change of the pressure lamp:

We learned above that between 1951 and 1964 important parts of the **Petromax** were renewed (page 10 and 11). For economic reasons more plastic was used.

Blue for the Petromax and red for the Aida.

As we also have seen above those changes ended in 1964 with the replacing of the 1954 preheater ‘tumbler’ by a new and more economized model having ribs on top of it (pict. 47).





Adjustments

This all means that the Aida was adjusted in almost the same way.



The differences were, beside the name, only the **red** coloured buttons. Technically the lanterns were identical (*pict. 47 and 48*).

The in Altena produced Aida lanterns were the Nrs.1215 and 1500 (both 500 cp), the Nrs.1214 and 1350 (both 350 cp) and the Nrs.1233 and 1250 (both 250 cp).²⁷

The definite ending

According the USA USPTO document with serial number “72454546”, in April 1973 the trademark Aida was granted to ‘Graetz Vertriebsgesellschaft mbH’, Ostliche Karl-Friedrich Strasse 132, **in Pforzheim** for 6 more years.

Well, it’s not clear to me whether or not the last Aida lantern series were produced in Altena, in Pforzheim or in Portugal, but the last lantern should have been made somewhere at the end of the 1970s!²⁸

Thus ended the production of the Aida.

All in all an interesting **brand** that started with “**Hirschhorn**”, ended with “**Graetz**”, was called **Aida** in between and often been recognizable by the **Stag** with the **horn**, the ‘**Hirschhorn**’.

Pict. 48. Aida Express
(owner unknown)

PS.

Spring 2004: According the American USPTO both old Hirschhorn trade marks were free.

December 2004: Juergen Breidenstein from Herdecke in Germany brought both marks into live again. He was granted these marks in Germany on 2 March 2005 and uses it for mantle lamps related purposes again. A new start!



Below: 1954 Aida poster. Courtesy J.Breidenstein.



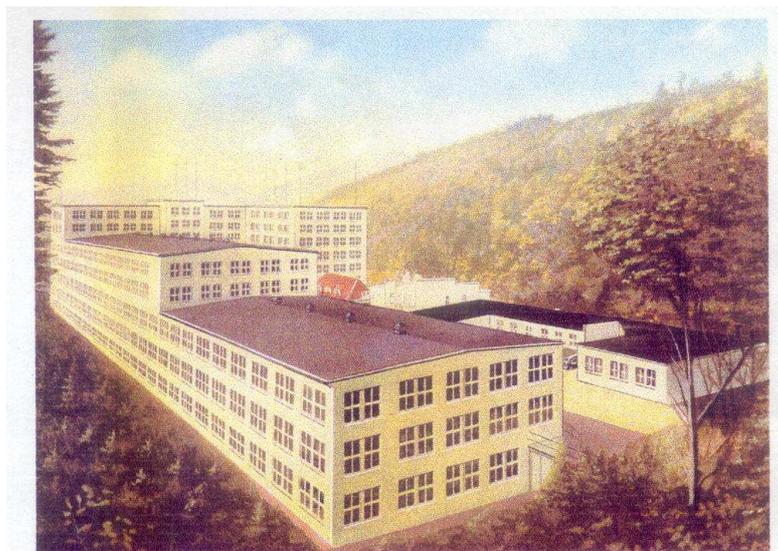
Appendix I Factory buildings.



Berlin 2006: At the background the former “Hirschhorn AG” buildings at the Köpenickerstrasse 149. (Photo A.Kaim).



Berlin 2006: The last of the former “E&G AG” buildings at the Elsenstrasse 87-96, Treptow (left the Elsenstrasse). Photo A.Kaim.



The Graetz KG buildings at Altena, West Germany in the early 1950s. ²⁹



Appendix II Several mantle burners and mantle lamps made by Hirschhorn.



Model 1906 Aida (SD)



Torex 1906 Aida (SD)



Model 1906 Aida (SD)



Model 1906 Litenite/Conia/Carmen (CD)



Model 1912 Litenite/Carmen (CD)



Model 1922 Aida (SD)



Model 1922 Aida (SD)



Model 1922 Sunlight/Carmen (CD)

Made by Ehrich & Graetz AG/Aida-Gesellschaft



Model 1938 Aida (SD) (photo courtesy L.Rusvai)



Appendix III The USA version of the Aida/Carmen CD (model 1909)

“CONIA”

*Central Draft
Kerosene
Incandescent Lamp*

The Greatest Light
Ever Produced
30 Line Burner
228 Candle Power

Mantles three times
larger than the man-
tles used on any
other lamp

Consumption :
1 Quart Kerosene
in 12 Hours

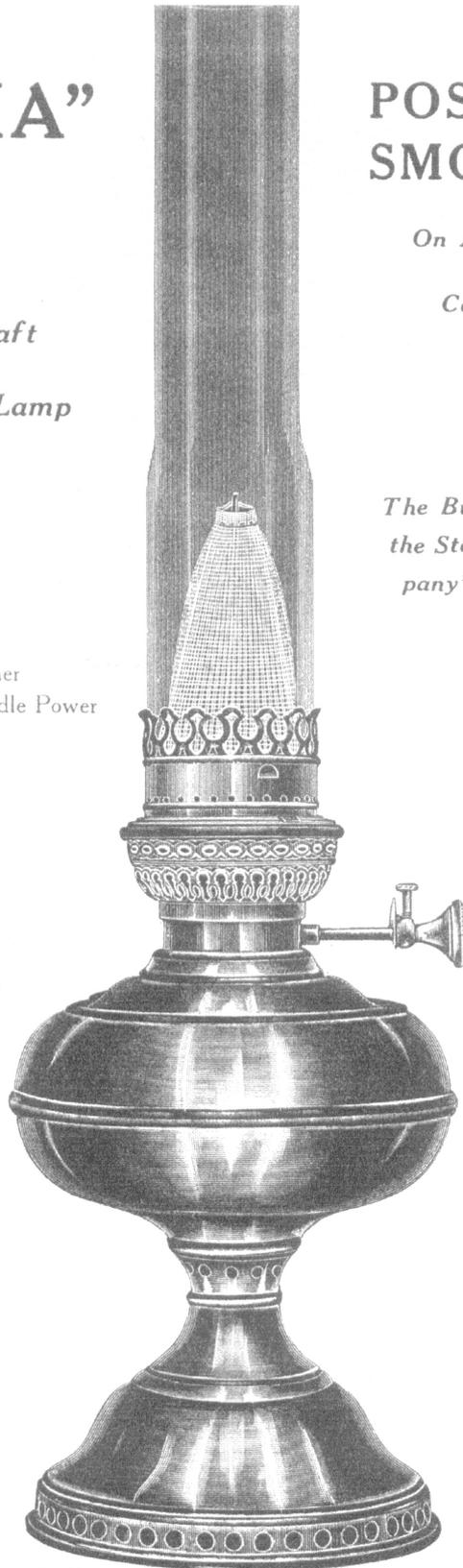
POSITIVELY SMOKELESS

*On Account of the
Enormous
Candle Power*

*The Burner will also fit
the Standard Oil Com-
pany's "Rayo" Lamp*

Model 1909

Retail Price
Complete
\$5.50 Each



1909 USA mantle lamp catalogue page (courtesy Fil Graff).



Appendix IV The Litenite/Carmen

The Litenite: a GB version of the Aida/Carmen (model 1912).



Litenite (Carmen)



Hirschhorn neutral Logo but after 1928 an Aidagesellschaft c.q. an E&G Logo



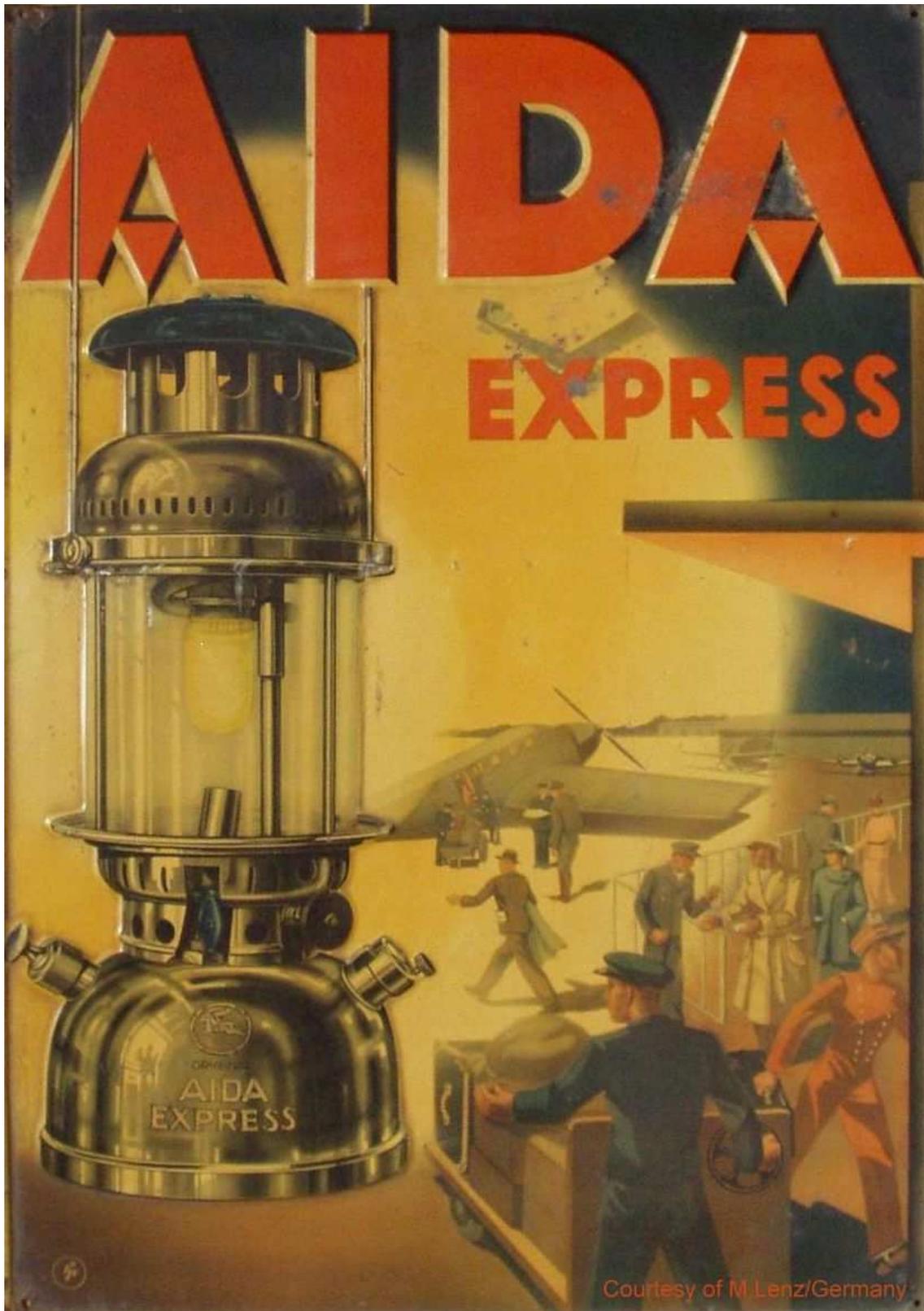
Appendix V Donut pressure hanging lamp



1924-1928 Hirschhorn AIDA Donut hanging lamp with vaporizer cleaning needle.
Photo courtesy Rolf Th. Hübener, Germany.



Appendix VI 1935/36 Aida advertisement



1935/36 Aida Express advertisement. A lamp with a **blue** hood.
Courtesy of Michael Lenz, Germany.



Appendix VII 1937 Aida advertisement for South America part 1

Una creación para el hogar

100 Bujías de luz blanca y brillante con 1 litro de kerosene en 10 horas!

Esas y deliciosas comidas en botes de Aida, con sus finas pastas, sus platos sencillos, sus pastas, sus platos sencillos, sus platos sencillos.

MODELO DE PIE
Comoda por su facilidad de traslado y versatilidad de su empleo. Precio completo \$ 30.50

MODELO DE PARED
Adecuada para pasillos, corredores, bibliotecas, vestíbulos, rincones, etc. Completa \$ 39.-

MODELO DE COLGAR
Ideal para comedor, sala, living, dormitorio, etc. Completa \$ 30.50

Mejora adaptable a cualquier ambiente. Precio completo \$ 2.30

100 Bujías eléctricas. Desechables que pueden ser usadas con un litro de kerosene en 10 horas. Con pantalla hermosa y atriles de vidrio \$ 38.-

Letras de metal, con placa de metal negro o una pantalla, modelo pequeño. Precio de accesorios, pantalla y atriles, que todos \$ 40.-

Nº 118 OP con pantalla modelo 6 118 P con pantalla atriles \$ 40.-

Nº 113 OP con pantalla modelo 6 113 P con pantalla atriles \$ 39.-

Alto: 41/2 cm. Contenido del depósito: 1/2 litro

Las mejores lámparas y faroles a gas de kerosene

Aida

ES LA MARCA QUE VD. TERMINARA POR USAR

Encendido rápido

UN NUEVA MARAVILLA!
este moderno farol representa un nuevo intento para la fábrica "AIDA", pues se enciende - sin alcohol - en solo 1/3 minuto con el propio kerosene del depósito.

Nº 102
350 Bujías eléctricas
Alto: 32.5 cm.
Consumo aprox: 1 litro en 12 horas
Contenido del depósito: 1 litro
\$ 32.-
Pantalla enlazada o, la misma \$ 3.60

Nº 103
350 Bujías eléctricas
Alto: 39.5 cm.
Consumo aprox: 1 litro en 12 horas
Contenido del depósito: 1 litro
\$ 37.-
Pantalla enlazada o, la misma \$ 4.60

BULLDOG

Nº 107 La 107 es una lámpara de mesa con pantalla de vidrio. Precio completo \$ 23.-
Pantalla enlazada o, la misma \$ 3.60

1937. Aida advertisement for South America part 1. With thanks to Neil McRea.



Appendix VIII 1937 Aida advertisement for South America part 2

Una creación para el hogar

100 Bujías de luz blanca y brillante con 1 litro de keroseno en 10 horas!

Elegante y delicadamente sencillez en bronce de alto cromado, con fina pantalla imitación gas-sermín, adaptable a todo interior casto-riable.

MODELO DE PIE
Cómoda por su facilidad de traslado y estabilidad de su amplia y moderna base.
Completa \$ 29.50

Este tipo adaptable a cualquier tamaño de lámpara con un suplemento. Completa \$ 13.50. Anillo para lámpara. \$ 1.50. Precio de envío \$ 2.00.

MODELO DE COLGAR
Ideales para comedor, sala, living, dormitorio, etc.
Completa \$ 30.50

MODELO DE PARED
Adecuadas para pasillos, corredores, bibliotecas, vestíbulos, rincones, etc.
Completa \$ 29.-

Lámparas
BULL-DOG

COTECNICA
COMPAÑIA TECNICA E IMPORTADORA S. A.
CHILE 758 BUENOS AIRES

SUCURSALES
 ROSARIO: Av. Belgrano 236
 SANTA FE: San Martín 3099
 CORDOBA: Maipu 46
 TUCUMAN: Rivadavia 177
 MENDOZA: Entre Ríos 45
 B. BLANCA: O'Higgins 266

Nuestras lámparas y faroles gozan de amplia difusión en todos los puntos del país. Solicítelas por su nombre en las casas del ramo, directamente a nuestra casa central o a cualquiera de nuestras sucursales.

1937. Aida advertisement for South America part 2. With thanks to Neil McRea.



Appendix IX Aida 103 pressure lamp



1935-1937. Aida 103, with blue hood and 1935 type preheater.
Photos courtesy Juan Caiti, Mendoza, Argentina.



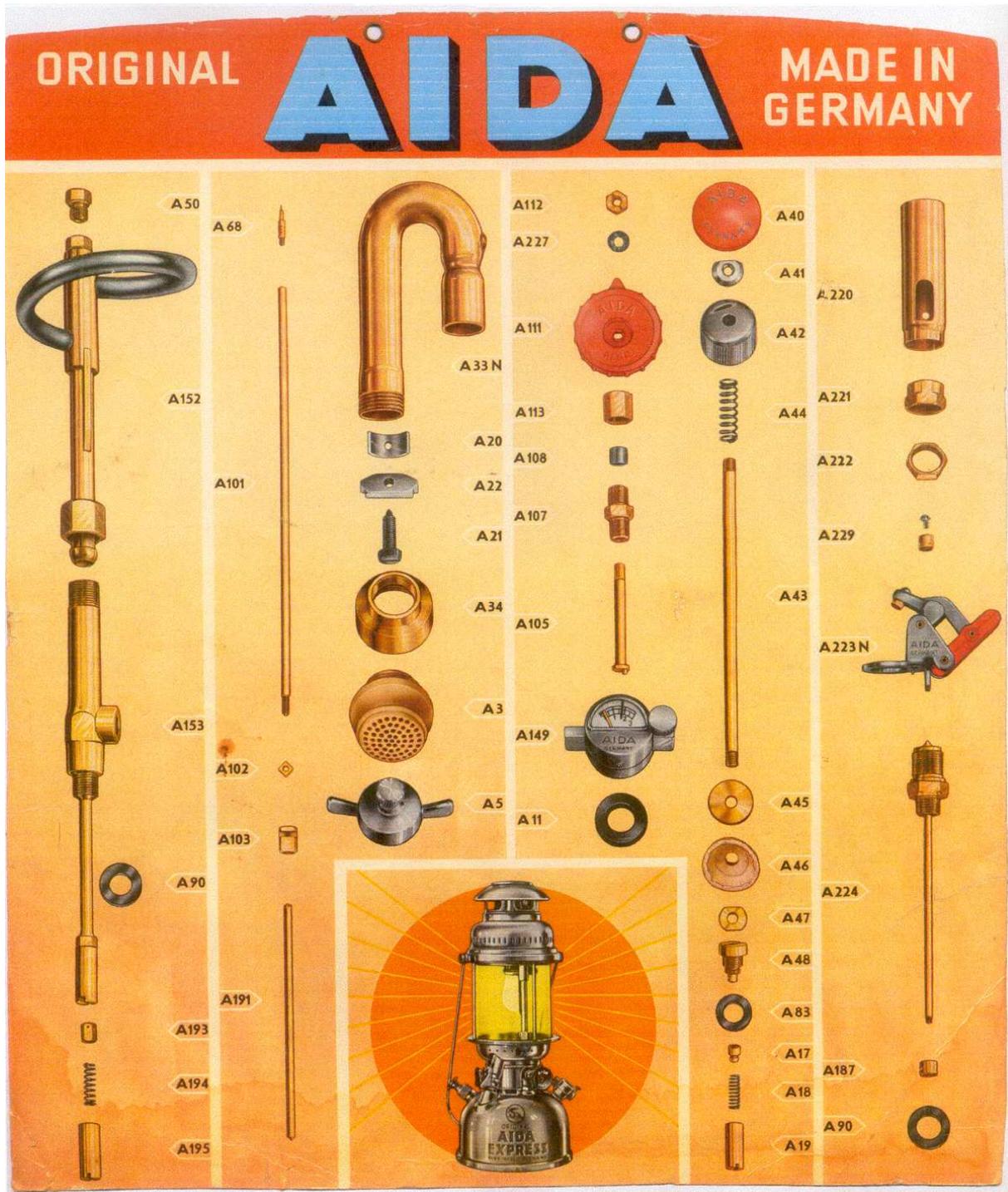
Appendix X Aida 244 Donut hanging pressure lamp



1937 AIDA 244 Donut hanging lamp made by the Aidagesellschaft, etc., Berlin.
Photo courtesy The State Museum for Engineering and Labour in Mannheim, Germany.



Appendix XI Aida spare list



1954-1957 Aida Express Spare parts list



Appendix XII Aida 1954 - 1957 catalogue page

ORIGINAL
AIDA

MADE IN GERMANY

PETROLEUM LAMPEN - LATERNEN - KOCHER / 250 - 500 HK

AIDA G.M.B.H., ALTENA (WESTF.)

1954 -1957 Aida Lamps and a cooker.
Page of a 1954 Aida catalogue.



Appendix XIII List Neil McRea

September 2007: Neil McRea's list of AIDA lamps. With his permission extracted from his Pressure Lamps Catalogue.

- ?? 300 cp? donut. Copper tank. Sloping vaporizer tube with cleaning needle. 1924-1928. (Rolf Th Hübener, Germany)... add by AK.
- ?? Kerosene Lantern. Possibly 300 cp. Grey enamel globe cage and hood. (Bernhard Müller)
- 100 "Pretty Dolly" 150 cp kerosene lantern as Petromax 900. Stamped on fount "Pretty Dolly AIDA 100, 150 cp" and "Kerosene Stormproof lantern made in Germany" around a Falcon above a winged wheel. (R Dudeck). [See image Logo 3 below.](#)
- 100 100 cp kerosene lantern. As Petromax 900. (C. Jüllig)
- 103 "Express" Kerosene lantern. Zinc Alloy rapid pre heater torch tumbler. 1939-1954 (Hans P. Waage)
- 105 "Express" Kerosene lantern with rapid pre heater torch. Hood with bayonet fitting. (From gas tip size possibly 500 cp)
- 213 200/250 cp lamp. (Info from Auerlicht catalogue mantle page supplied by Stefan Meissner. No further details.)
- 214 300 cp kerosene lantern. With automatic cleaning needle. 1 litre fount. 390 mm tall. (Aida flyer dated Sept 1929)
- 214a 300 - 400 cp lantern as 214 but with a double row of small holes in the lower hood and upper part of globe cage rest instead of the more commonly seen small slots. Marked on fount with embossed number 214a. One example known found in Argentina and stamped with "Introducer Juan Schmalland Buenos Aires Chacabuco 390". Model number confirmed in an Auerlicht catalogue mantle page supplied by Stefan Meissner.
- 214L 300cp hurricane lantern. (# from Milbro catalogue)
- 214N As 214 Above. Fibre control wheel. Stamped on fount "Original AIDA No214N 350cp Regd. Made in Germany" below the embossed Aida logo of Stag and Horn. Also stamped with a crude copy of the logo of a falcon on a winged wheel with B. R. seen on the model 100 Pretty Dolly above. And around this logo stamped with "Kerosine Stormproof Lantern RANGOON Made in Germany". See image of Logo 4 below
- 215 300cp hurricane lantern. (W.v.d.Velden) [\(See also page 8\).](#)
- 226 300/400 cp lamp. (Info from Auerlicht catalogue mantle page supplied by Stefan Meissner. No further details.)
- 227 800/900 cp lamp. (Info from Auerlicht catalogue mantle page supplied by Stefan Meissner. No further details.)
- 228 200/250 cp lamp. (Info from Auerlicht catalogue mantle page supplied by Stefan Meissner. No further details.)
- 229 200/250 cp lamp. (Info from Auerlicht catalogue mantle page supplied by Stefan Meissner. No further details.)230 200/250 cp lamp. (Info from Auerlicht catalogue mantle page supplied by Stefan Meissner. No further details.)
- 231a 200/250 cp lamp. (Info from Auerlicht catalogue mantle page supplied by Stefan Meissner. No further details.)
- 232 300 cp kerosene lantern as 214 but smaller with ¾ litre fount and 365mm tall. (Aida flyer dated Sept 1929)
- 233 "Liliput" 200 cp kerosene lantern. Polished or nickel plates brass. 300 mm tall. (R Dudek)
- 233 Lantern as 233 above but no Stag and Horn logo and stamped Aida 250cp No 233. Also stamped with a crude copy of the logo of a falcon on a winged wheel with B. R. seen on the model 100 Pretty Dolly above. And around this logo stamped with "Kerosine Stormproof Lantern. BOMBAY-RANGOON Made in Germany". [See Image of Logo 5 below.](#)
- 236 200 cp donut. Steel tank painted black. 9" Diam. reflector. (Paul Mitchell)
- 237 400 cp lamp. (Info from Auerlicht catalogue mantle page supplied by Stefan Meissner. No further details.)
- 238 200 cp lamp. (Info from Auerlicht catalogue mantle page supplied by Stefan Meissner. No further details.)
- 239 400 cp lamp. (Info from Auerlicht catalogue mantle page supplied by Stefan Meissner. No further details.)
- 240 200 cp lamp. (Info from Auerlicht catalogue mantle page supplied by Stefan Meissner. No further details.)
- 241 200 cp lamp. (Info from Auerlicht catalogue mantle page supplied by Stefan Meissner. No further details.)
- 242 400 cp lamp. (Info from Auerlicht catalogue mantle page supplied by Stefan Meissner. No further details.)
- 243 400 cp lamp. (Info from Auerlicht catalogue mantle page supplied by Stefan Meissner. No further details.)
- 244 Do nut lamp. 200 cp. As Petromax 834. Probably with steel fount. (Instruction leaflet 1937) (A. Willman)
- 245 Do nut lamp 400cp. In the Petromax style. Probably with steel fount. (Instruction leaflet 1937)
- 245 500cp donut. Steel tank. Looks like Petromax donut but without pressure gauge. (Probably post 1945 Graetz design)
- 246 Do nut lamp as 244. No details of difference but possibly brass or copper fount. (Instruction leaflet 1937)
- 247 Do nut lamp as 245. No details of difference but possibly brass or copper fount (Instruction leaflet 1937)
- 248 Do nut lamp 800cp. In the Petromax style. Probably with steel fount. (Instruction leaflet 1937)
- 249 Do nut lamp as 248. No details of difference but possibly brass or copper fount (Instruction leaflet 1937)
- 1215 "Record" kerosene 500cp lantern as Petromax 523. Logo on fount. Red plastic control wheel. Alcohol pre heat only.
- 1233 "Record" kerosene 250cp lantern as Petromax 821. Logo on fount. Red plastic control wheel. Alcohol pre heat only.
- 1250 500 cp kerosene lantern as Petromax 523. Plate on collar with "Aida Original Record 1250. 500 cp" (Carlos Capmany)
- 1250 Original Express 250cp as Petromax 827. Rapid pre-heater torch, no alcohol cup. Metal pump knob and zinc alloy torch control. 1949 - 1954 * [\(* To my opinion 1946 - 1952..AK\)](#)
- 1250 Express "Record" 250cp as Petromax 827. Rapid pre-heater torch, no alcohol cup. Plastic pump handle and parallel arm torch control. 1954 - 1964
- 1250 Express "Record" 250cp as Petromax 827. Rapid pre-heater torch, no alcohol cup. Plastic pump handle and parallel arm torch control. 1964 -
- 1350 Express 350 cp kerosene lantern with rapid pre heater torch. As Petromax 828. (D. Belavendram)
- 1500 Express Record 500cp as Optimus 1500g.
- 5090 Lantern. No further details. (from parts list supplied to me by Mick Emm)
- 5091 Lantern. No further details. (from parts list supplied to me by Mick Emm)
- ?? Harp Lamp. 200 or 300 cp. Lantern head in harp frame below inverted fount with pressure gauge, cycle pump type filler cap and pressure release screw. With narrow gallery for a shade or reflector. No model number marked on the lamp but this could be one of the lamps listed in the Auerlicht mantle catalogue. [\(See Image on this page\).](#)



AIDA Logo 3



236

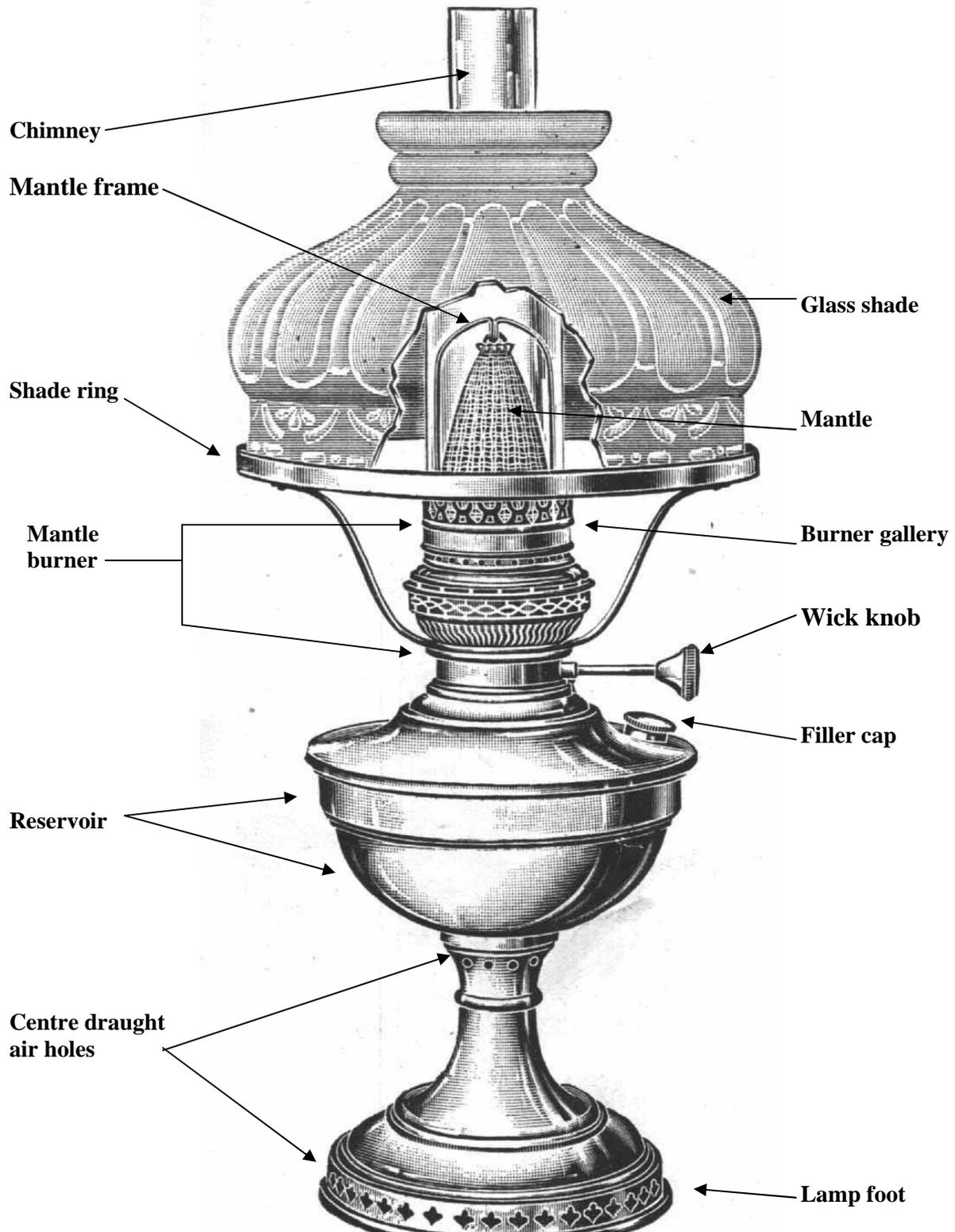


AIDA Logo 5



Appendix XIV Hirschhorn Sunlight mantle lamp

Centre Draught (CD) mantle lamp.



Hirschhorn type Sunlight mantle lamp (CD)



Hirschhorn-AIDA-Graetz...a BRAND between 2 companies



Year	Version Feb 2008			Version Feb 2008			Version Feb 2008			Version Feb 2008			Version Feb 2008		Version Feb 2008	
	Esso Lamp	Esso Burner	Esso Details	Candesco Lamp	Candesco Burner	Candesco Details	Famos Lamp	Famos Burner	Famos Details	Aida Lamp	Aida Burner	Aida Details	Cousin Burner	Cousin Details	step-child Burner	step-child Details
1905																
1907																
1922																
1925																
1928																
1930																
1930																
1933																
1936																
1937																
1947																
1949																
1953																
1955																



Notes:

¹ See German Trademark books 1906, Nr. 89470-1906 (AIDA).

² The specific brands: Brillant-1889, JH Diamant-1893, RheingoldBrenner-1894, International Lampe-1896, Champion-1897, Bengalia-1904, Titan-1904, jumping stag with a horn around it's chest-1906 (**Hirschhorn means: stag horn**), Aida-1906, Carmen-1908, Bonares-1909, Clara-1910, Saja-1911, Jari-1920, Lotos-1912, Tusculum-1912.

³ Dr. Herman Ubbo Lahde (1901-1984). Since 1939 head of the patent division of "E&G AG" in Berlin.

⁴ See page 200 and 201 of "Deutsche Lampe in Wort und Bild", 1911, by J. Goldberg.

⁵ See: Light International, Vol.4, Autumn/Winter 2001, nr. 4. article "The relationship between the "Kronos" and the "Candesco" by A.Kaim.

⁶ See: Light International, Vol.4, Autumn/Winter 2001, nr. 4. article "The relationship between the "Kronos" and the "Candesco" by A.Kaim.

⁷ Welshbach catalogue middle of the 1920s. Owner J. Claypole from the UK.

⁸ See "Light and Heat from Hydrocarbon Appliances, Portrait of an Industry", by dr. Herman U. Lahde. Printed by J.W. Courter, 3935 Kelley Rd., Kevil, KY 42053, USA, in particular chapter XI.

⁹ See "Light and Heat from Hydrocarbon Appliances, Portrait of an Industry", by dr. Herman U. Lahde. Printed by J.W. Courter, 3935 Kelley Rd., Kevil, KY 42053, USA, in particular chapter XI.

¹⁰ See Warenzeichen Nr. 397035-1929, Nr. 444105-1932, Nr. 511141-1939 and again Nr. 511141-1953.

¹¹ "Welsbach" and "Millbro" catalogues end 1920s, beginning 1930s. Owner J.Claypole, UK.

¹² See information from Peter Süß on Dirk Frieborg's website (Anno 2003).

¹³ See German Patents DE 672058-1937 (F.Graetz en H.Lahde), DE 685272-1939 (F.Graetz en H.Lahde), DE 687139-1939 (F.Graetz en H.Lahde).

¹⁴ Pictures by Laslo Rusvai from Rumania 2002.

¹⁵ Several websites. Found through Yahoo with the search command 'pressure lamps' (website of A.Moore) or with the search command 'Aida Gesellschaft' (website van "Hytta Cabana" and website of "Dirk Frieborg", etc).

¹⁶ For more lamp numbers and details see also Neil McRea's Pressure Lamp Catalogue available by The International Guild of Lamp Researchers (e-mail (2007): macburner@btinternet.com). See also Appendix IX.

¹⁷ Source: "Graetz KG" Nachrichten, Altena, december 1954. Those "Nachrichten" were obtained from mr. Steden, former employee of "Graetz KG" in Altena.

¹⁸ Source: "Graetz AG-VEB" Nachrichten, Berlin 1949. Those were obtained from mr. Steden, former employee of "Graetz KG" in Altena.

¹⁹ Source: "Signal auf Grün, Geschichte des VEB Werk für Signal- und Sicherungstechnik Berlin", page No. 46. Obtained through W. v.d. Velden, June 2003.

²⁰ West German patent DE 873381 of 23 May 1951.

²¹ West German patent DE 947151 of 5 April 1952.

²² West German patent DE 951204 of 14 April 1954.

²³ West German patent DE 1023431 of 3 August 1956.

²⁴ West German patent DE 1228575 of 22 October 1964.

²⁵ Source: "Die Graetz Nachrichten 1959". I got these via Jurgen Breidenstein, but it is originally coming from mr. Steden. According to Jurgen Breidenstein owned the family Graetz the "Graetz AG". This would be the explanation for, for instance, the mysterious situation in which both the "AG" as well as the "KG" were in the same year the owner of two different "Aida" brands.

²⁶ USPTO Serial Number 72454546; Filing date 13 April 1973.

²⁷ Information obtained from Mr. Steden, former employee of "Graetz KG" in Altena.

²⁸ Neil McRea suggested (in 2007) that it might be possible that in the early 1980s Hipolito in Portugal also produced Aida lanterns under licence, like they did with the Petromax at the very end of the 1970s.

²⁹ Picture obtained via Wim van der Velden.