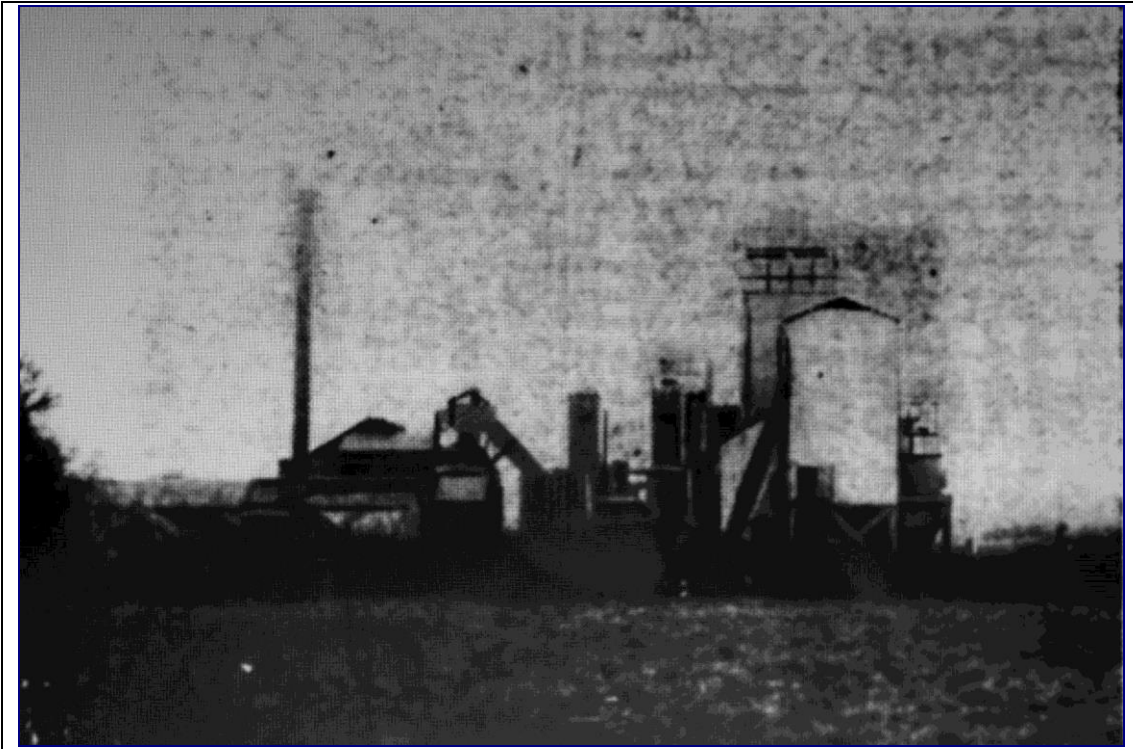


OIL DISTILLATION FROM COAL AT NEWBOLD, LEICS



**BY SAMUEL T STEWART - DECEMBER 2021 - updated
FEBRUARY 2024**

FRONT COVER PHOTOGRAPH

This is of the "British Coal Distillation Ltd" plant at Newbold taken in 1934. See later text for details of its location.

PREFACE

The few records that are available of the Coal Distillation plants at Newbold are somewhat fragmented and this publication is an attempt to put the facts into an understandable chronological format.

It cannot be over estimated how important this development was in the industrial history of Newbold.

No doubt there are further records out there somewhere in Record Offices, but it would be an extremely time consuming task to research those and it is unlikely they would add much substance to what has been written here.

Hopefully, following the posting of this publication on the author's website, samuelstewart.com more information will be submitted by local readers, which can then be added at a later date.

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INTRODUCTION

Another hope for the future associated with the coal mining industry in the 1920's / 1930's was an idea to convert coal of a standard which ordinarily the coal mines were unable to sell to the market, into other products. Coal is a fossil fuel and mainly consists of carbon and small amounts of hydrogen, sulphur, oxygen and nitrogen. It was found that coal could be decomposed by heat in the absence of air and distilled to produce useful products such as coke, charcoal, oils, petrol and gases.

PRIMARY OIL FROM LEICESTERSHIRE COAL

From each ton of Coal the L & N Unit at New Lount Colliery, near Leicester, produces 19 gallons of Primary Oil which is the material for the manufacture of the following commodities:

4 Gallons of Fuel for Road Making
8 Gallons of Diesel Oil
2 1/2 Gallons of Lubricating Oil
2 1/2 Gallons of Kerosene
Nearly 2 Gallons of Petrol
4 Gallons of the Acid for Road Making

From these oils are produced the following: Explosives, Synthetic Gas for Road Making, Lubricating Oils, etc.

GREAT BRITAIN annually spends \$45,000,000 on importing, refining and distributing foreign well oil. Over \$5,000,000 of this is spent on lubricants, 98 per cent. of which come from America.

By the "L & N" Process of Coal Distillation there is obtained at low cost from each ton of Leicestershire Coal treated—in addition to residual fuel—19 gallons of Primary Oil which can be refined into the derivatives shown in the illustration for which there is a large and ever-increasing demand.

The 15 cwt. of "L & N" Fuel produced, per ton of coal treated, is briquetted, pulverized or used in lump form. It is the most perfect Fuel ever produced for any Industrial or Domestic purpose, having unique characteristics owing to the method of treatment. It is safe, clean, unobnoxious and economical.

The "L & N" Unit in Leicestershire is the first Commercial Unit erected in the British Coal-fields to produce these products, and is a practical Plant with a likeness to the ordinary cement kiln, both in design and in operation. It has been inspected by the Technical Advisers of many interests over the past few months.

The "L & N" Process is the single method of obtaining Lubricating Oils from any Coal, and has a strict monopoly protected by Letters Patent.

According to the Royal Commission of 1925 the successful scientific treatment of coal, by such processes as Distillation, is the one sure means of restoring the British Mining Industry to general prosperity and, through the prosperity of this Industry, of re-establishing general industrial well-being throughout Great Britain.

Further particulars may be obtained from:

LEICESTERSHIRE (L & N) COAL DISTILLATION LTD
York Mansions, Petty France, Westminster, London, S.W. 1.

The above Leicestershire (L & N) Coal Distillation Ltd advertisement relates to the first pilot plant built adjacent to the New Lount Colliery pit head which was later superceded by the new production plant built adjacent Melbourne Rd, a photograph of which appears on the front cover.

PART 1

Because of concerns about shortages and cost of imported oil in the 1920's, considerable special investments were being made in "coal by-product plants" of various kinds.

For example, the "New Hucknall Company" invested considerable sums in a subsidiary company which erected a plant at Welbeck Colliery, for the production of petrol from coal. The plant started operations in 1927, when it was designed to produce oil from cannel coal for re-sale to tar distillers for blending with creosote oils. However, when the price of creosote fell from 9d. to 3d. per gallon, it was decided to try to produce petrol. After two years research, a workable system was developed and "Welbeck Engineering Spirit" was put on the market at 1s. 2½d. per gallon. Some twenty six gallons of petrol were obtained from one ton of cannel coal. Petrol stations were opened at the four pits of The New Hucknall Group.

About the same time, a new enterprise for the direct distillation of oil from coal was promoted in Leicestershire. The original partners called their undertaking "**L and N Coal Distillation Ltd**". **They were owned by the "Leicestershire & Colliery pipe Company Ltd" who were the owners of "New Lount Colliery" which had opened in 1924. This resulted in a pilot plant being built adjacent to the New Lount Colliery pit head in 1927 / 8.**

The following was recorded in a Daily Consular and Trade report dated April 25th, 1927 No.17. Volume 2.....

Low Temperature Carbonization Development in England

(by Alfred Nutting of the consular general, London)

An attempt to prove the commercial soundness of the extraction of oil in large quantities from British coal, by the installation of full-size plants in various parts of Great Britain, is to be made by a company formed for this purpose and registered as L & N Coal Distillation (Ltd). Its chairman claims that the low-temperature process will obtain from a ton of coal, 20 gallons of oil, 6,000 cubic feet of town-grade gas, and 14 to 14 and a half hundred weights of smokeless fuel suitable for use in the domestic grate or industrial furnace. It is further claimed that the coal is left in an even more satisfactory state for burning than before treatment.

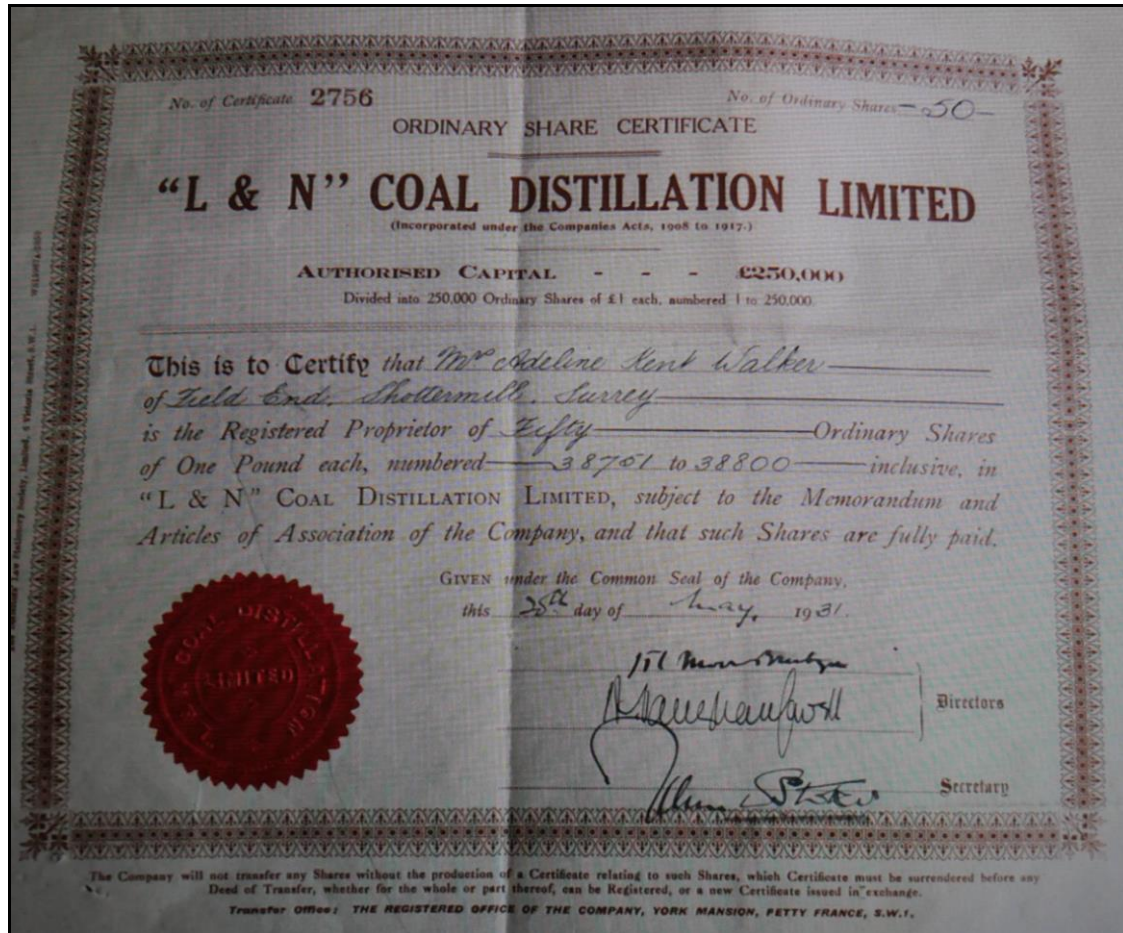
Commercial Advantages Claimed for New Process

The new company has taken over the British rights of all patents and processes owned by the "Sensible Heat Coal Distillation Co.," pioneers in the industry. The best known systems hitherto were the ordinary gas works and coke ovens, which employed high temperature processes. The L & N proposes to use what is called a low - temperature process, which has peculiar difficulties which is claimed to have extra commercial advantages. A report on laboratory experiments with a low-temperature process for bituminous coal in 1926 indicates that the coke produced forms a satisfactory fuel for most purposes.

It was further recorded in "The British Chemical Trade Bulletin" Number 621 dated 1928 that "L & N Coal Distillation Ltd" were using 150 tons of coal slack a day with plans to increase this in the future to 750 tons per day.

It can be assumed from the above that the "L & N Coal Distillation Ltd" plant recorded to have been built next to the New Lount Colliery pit head started production in late 1927 or early 1928.

It can be seen by the share certificate below that this company had an authorised share capital of £250,000 through a share issue of 250,000 shares at £1 each. The share certificate is proof that this plant was still in operation in 1931, as shares were still being issued. A. R. Griffin tells us*Unfortunately, before their process was perfected, apparently the price of natural oil fell drastically so as to make coal distillation uneconomic, and the project languished for a time.*



This share certificate dated 1931 is in the public domain and at the time of writing is offered for sale on the internet

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PART 2

Following the results achieved at the pilot plant adjacent to New Lount colliery pit head in 1927/8, the L & N company now turned to concentrating on perfecting a smokeless fuel with oil as a by-product, and considerable sums of new capital were injected into the enterprise. The new company, was called "**The British Coal Distillation Ltd**". The chairman of the company, Mr. R. D. Hardy was a director of the "Leicestershire Colliery and Pipe Company Ltd", the owners of New Lount Colliery which opened close by in 1924 on land owned by Sir George Beaumont. The majority of the coal for the plant was to be supplied from this Colliery.

The "British Coal Distillation Ltd" plant was situated on the right hand side of the Melbourne Road, before the railway bridge when heading north towards Lount cross-roads. It is not known when this plant shut down production.

Frank Hodges, who became the Managing Director of New Lount Colliery, also joined the board. As early as 1920, at a time when coal was indisputably "king", he had suggested that oil presented a serious threat to the mining industry's long-term future and that "it might hasten out the coal era in a shorter period than we are prepared to admit" (from "The odyssey of Frank Hodges" by Chris Williams").

The pilot plant, which is recorded as having a capacity of 100 tons of coal a day eventually proved successful and a joint subsidiary was then formed with B.A. Collieries Ltd under the title of Suncole (Nottingham) Ltd, and a large plant, called the "Suncole Plant", was erected at Cinderhill. This plant came on stream just before the outbreak of the war, but technical problems dogged it from the start and it never came fully into production. The plant was designed to consume 220,000 tons of coal a year, but it closed down in 1940. (from Mining in the East Midlands 1550-1947 by A. R. Griffin).

It is not known when the L & N plant closed down

PART 3

SUPPLEMENTARY INFORMATION A

PROPOSED 'L & N COAL DISTILLATION' IN NEW ZEALAND

In a newspaper entitled "New Zealand Truth" (issue 1199) 22nd November 1928, page 2, the following extract appeared under the heading :-

A Valuable Proposition
L & N Coal Distillation
New Zealand Ltd.

In June of 1928, a complete L & N plant was erected at the pit head of New Lount Colliery, Leicestershire, which is owned by the Leicestershire Colliery & Pipe Company Ltd". The plant was supplied by L & N Coal Distillation Ltd and was guaranteed to treat 100 tons of slack coal per day.

In operation, the plant actually treated 150 tons of slack per day, and on account of its successful results, the colliery company has been reorganized with a capital of £850,000 to put in additional plant with a capacity of 750 tons per day.

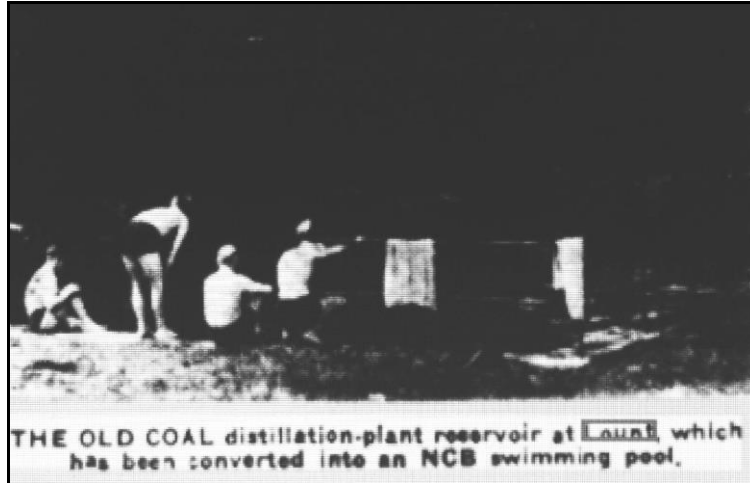
They are mighty hard headed people in Leicestershire, and if four months working of the new process produces this amount of enthusiasm, this critic's opinion is that New Zealand investors need not hesitate to follow the lead.

There is some conflict with the wording in this article with other evidence found, but it is worthy of recording.

Continued over page

SUPPLEMENTARY INFORMATION B

WHERE THE AUTHOR LEARNED TO SWIM AS A LAD OF NO MORE THAN 10 YEARS OF AGE c.1952



Transcribed from the Leicester Evening Mail - Wednesday 07 June 1950

MINER'S SPA

THE OLD DISTILLATION PLANT at Lount, now little more than a rusting memory of an attempt to find a use for Leicestershire surplus coal by turning it into oil and by-products, has just paid a small dividend to miners whose prospects of work it was once aimed to improve. A concrete reservoir on the site, where, in the old days oily liquors lay in an inky lagoon, has just been cleaned out, and turned into an NCB swimming-pool. Miners, all free at some part of the day because of the shift system, can bathe in cool refreshing waters that owe their sparkling properties to the fact that they are pumped, in a constant stream, from deep underground springs which would otherwise flood into New Lount pit nearby.

The author's memories were not of cool refreshing water with sparkling properties, but more like swimming in freezing pea green soup with frogs for company.

LUCKIEST

The miner's Spa is in a tree lined setting on the fringe of Lount Wood. It is longer than the average swimming pool, but no one would suspect that it was not originally designed for bathing. Luckiest miners are those at New Lount Colliery only half a mile away. During the heat wave, they have been filling their leisure time at the pool and taking full advantage of the facilities.

SUN-BATHING TOO

To complete the adaption, a dressing room has been built in the woods, and there is a green stretch of turf for sun-bathing. A pipe-line brings water through the woods to

the pool. Not far away, shrubs and small trees are rapidly covering the skeletons of the old distillation apparatus.

Built in the days when the coal industry was seeking a use of its production surplus, at least part of the plant has thus survived long enough to present an amenity to tired workers during the mining boom.