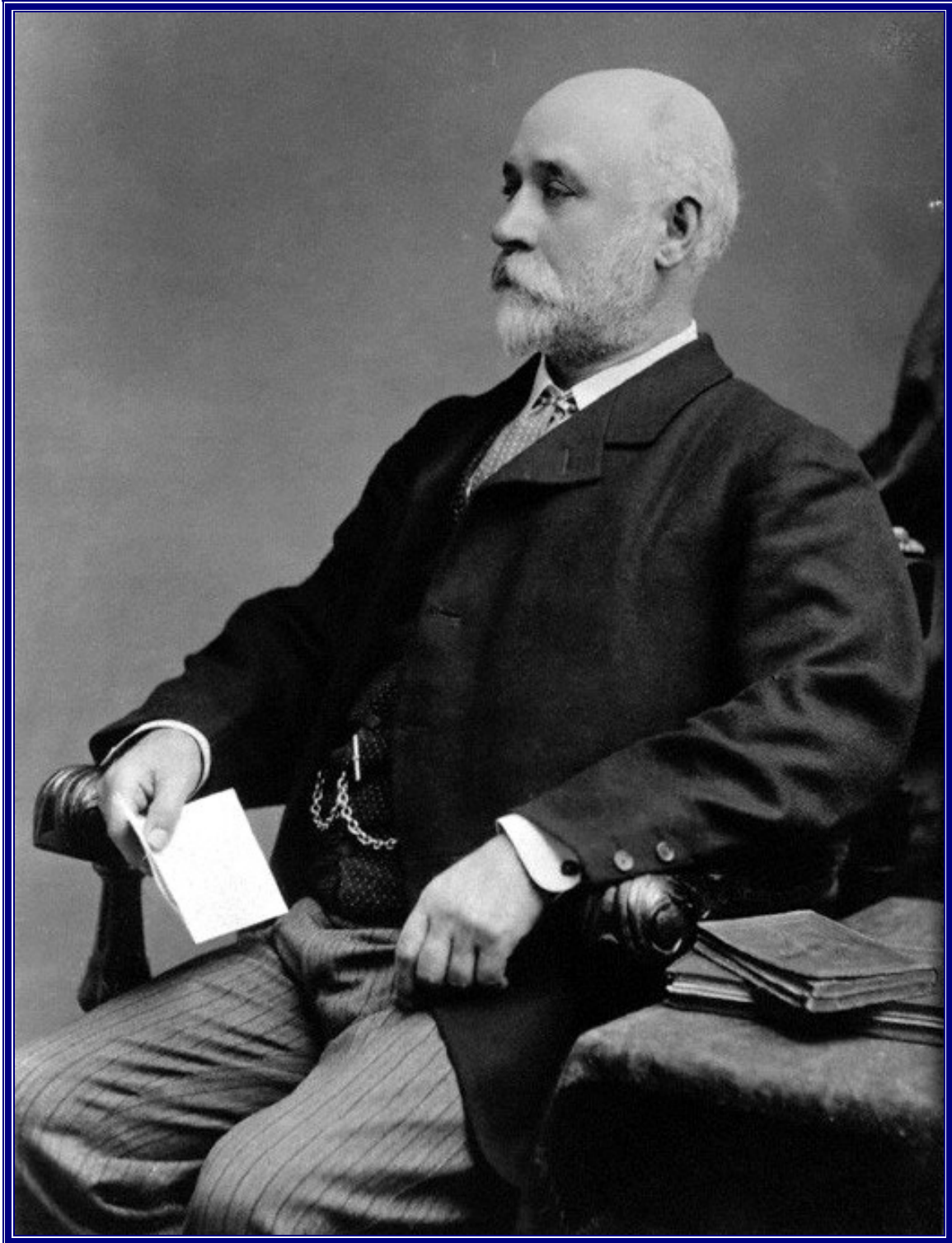


ALFRED HASLAM

By EurIng Brian Roberts, CIBSE Heritage Group



Sir Alfred Seale Haslam, 1844-1927 (National Portrait Gallery)

Alfred Haslam was born in Derby in 1844. He was the fourth son of the ironfounder William Haslam and trained as an engineer in Derby and in Newcastle upon Tyne. In 1886, he opened the Union Foundry in Derby the firm becoming the Haslam Foundry & Engineering Company Ltd in 1876. Following in the footsteps of early refrigeration pioneers he became a major manufacturer of cold-air machines.

The working principles of a cold-air machine were explained by Richard Trevithick in 1828, while John Gorrie, a doctor in Florida, received a US Patent for his machine in 1851. Alexander Carnegie Kirk developed and installed a closed-cycle plant in 1862, for the Bathgate paraffin oil works in Scotland. Paul Giffard, in Paris, developed an open-cycle machine in 1873. (Giffard's cold-air machine was successfully improved and manufactured by J & E Hall of Dartford in Kent and used, from 1886, for the transport of meat in refrigerated ships).

The Bells of Glasgow, anxious to replace natural by artificial ice, sought the advice of Lord Kelvin, who introduced them to J Coleman. The Bell-Coleman machine, patented in 1877, represented a peak of development in cold-air machines. In 1880, the successful voyage of the *Strathleven* with its cargo of frozen meat heralded the birth of a new industry. That same year, Haslam acquired the Bell-Colman patents and, for the next fourteen years, was a major supplier to the British marine meat refrigeration market..

In 1881, the *Orient* arrived in the Thames with the first cargo of frozen meat from Australia, refrigerated by Haslam's system. The company exhibited its refrigeration machinery in 1883 at the International Fisheries Exhibition. In 1892, Haslam Engineering merged with Pontifex & Wood, a firm specialising in absorption refrigerating machines. In 1894, Haslam made a patent application for a new type of ammonia compressor.

The company which was to become Pontifex & Wood in around 1850 was founded as E & W Pontifex & Company in 1788 at Farringdon Works in London's Shoe Lane. The founders were Edmund and William Pontifex and James Wood. The company traded as lead merchants, iron founders, millwrights and copper smiths. In 1876, Pontifex & Wood installed a 24 ton output ammonia absorption refrigerating machine at Meux's Brewery. In 1885, they supplied a cold store refrigerating plant to the Great Northern Ice Company Ltd in Grimsby having "patented an ice-making machine some years before." (A US record states that E E Hendrick purchased the English Pontifex patents in 1882 for the Carbondale Machine Company of Pennsylvania). In 1889, they built cold storage rooms in Nottingham, but soon after merged with Haslam.

Alfred Seale Haslam was a major civic figure in Derby. He was elected a Councillor in 1879 and was Mayor of Derby from 1890 to 1891, then three times Mayor of Newcastle under Lyme and Member of Parliament for Newcastle under Lyme from 1900 to 1906. While Mayor of Derby he replaced the old William Strutt Infirmary with the Derbyshire Royal Infirmary, opened by Queen Victoria in 1891 when she knighted Haslam for his services. (Strutt devised and installed his cockle, warm-air stove at the Infirmary in 1791).

Alfred Haslam died in 1927 leaving over £1 million and was buried at Morley in Derbyshire. Two of his three sons, predeceased him, but the third, Eric, continued in the family business, renamed the Derby Pure Ice and Cold Storage Company. In 1928, the Haslam Foundry Company was taken over by the electrical engineers Newton Brothers Ltd who changed its name, in 1935, to Newton Brothers Ltd. But the refrigeration side was bought in 1935 by L Sterne & Company Ltd of Glasgow who had been making refrigeration machinery since about 1882.

Louis Sterne was born in Philadelphia in 1835 and trained as a locomotive engineer. In 1865, he set up as a consulting engineer in London, going into business, in 1874, with a competitor W S Thomson. They formed a company manufacturing railway springs and buffers at Crown Ironworks in Glasgow. In 1879, they began manufacture of Clerk's Patent Gas Engines.

In 1888, L Sterne & Company Ltd introduced the American De La Vergne ammonia refrigerating system into the UK with an installation for the Leadenhall Market Cold Storage Company. In 1908, Samuel Richard Beale was appointed Managing Director. In 1915, Sterne was awarded the contract to supply refrigerating equipment for the new cold stores at London's Royal Albert Dock. A few years later, it provided machinery to the Clydeside Cold Storage Company Ltd and was involved in ice rinks for Earls' Court and at Liverpool.

Louis Sterne died in 1953; the company continuing in the refrigeration business until it virtually ceased trading in 1961, being acquired by Prestcold Ltd in 1968. The Sterne name was phased out in 1971.

The story of Haslam is also the story of much of the UK's refrigeration industry: from the patents of Bell-Coleman, the formation of Haslam itself, the merger with Pontifex & Wood, and finally the development of Sterne.

The Bell-Coleman Mechanical Refrigeration Company

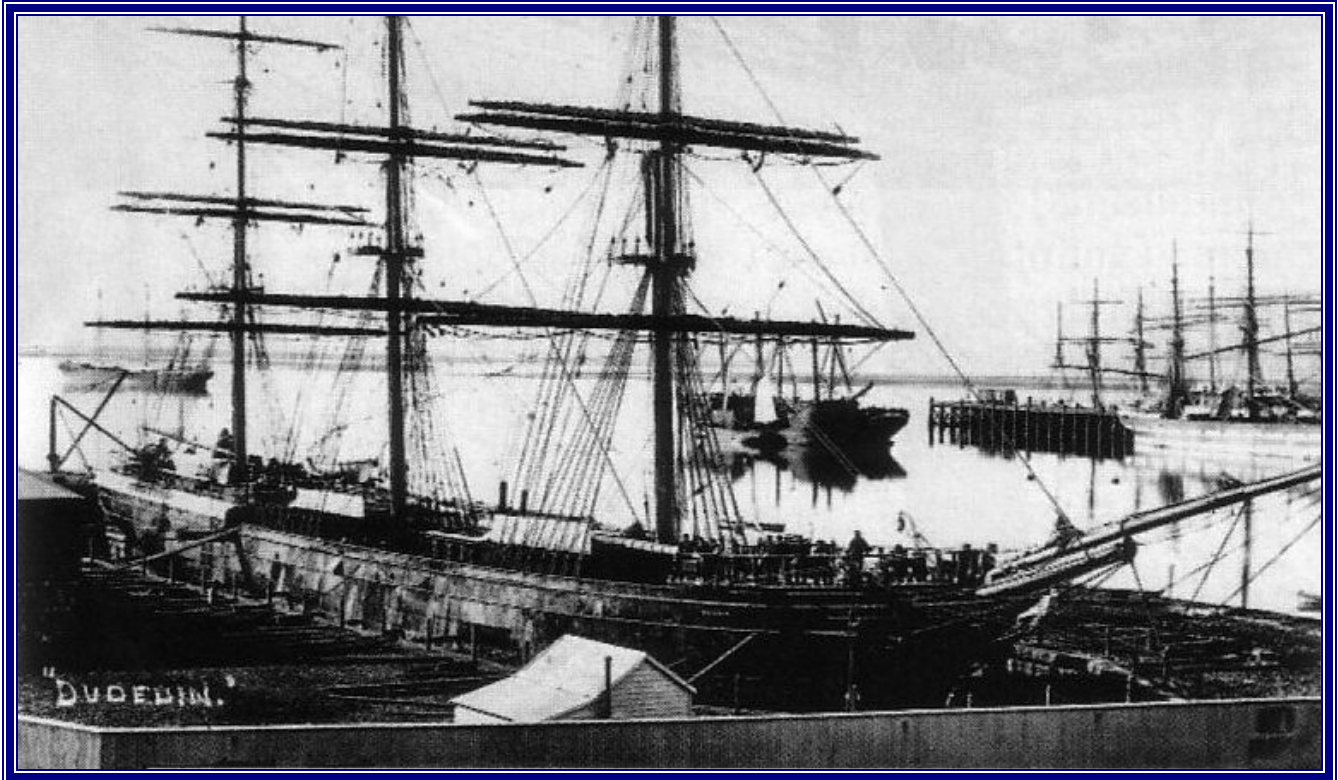
THE BELL-COLEMAN MECHANICAL REFRIGERATION CO^o
MAKERS OF COLD AIR AND ICE MAKING MACHINERY.

USED ON BOARD SHIP BY THE ANCHOR LINE - ORIENT CO^o - P. & O. CO^o - GUION LINE -
ALBION SHIPPING CO^o - CUNARD CO^o - TRANSATLANTIC CO^o OF SPAIN -
QUEBEC STEAMSHIP CO^o - HUDSONS BAY CO^o - NORTH GERMAN LLOYDS -
COMPAGNIE GENERALE TRANSATLANTIQUE - SHAW SAVILL & CO^o - AND OTHERS.
USED ON LAND AT BACON CURING WORKS AT WATERFORD, LIMERICK & HAMBURG. AT
PUBLIC ABATTOIR, SYDNEY N.S. WALES. AT FOREIGN ANIMALS WHARF, RAMSDEN
DOCK, BARROW IN FURNESS. AT SLAUGHTERING & MEAT FREEZING WORKS AT
ROCKHAMPTON, QUEENSLAND, AUCKLAND, NEW ZEALAND, & BERMUDA, WEST INDIES.
AND IN SPERM OIL WORKS, BREWERIES, &c.

GLASGOW. 45, WEST NILE STREET. — LONDON. 21, ST. HELENS PLACE, BISHOPSGATE, E.C.

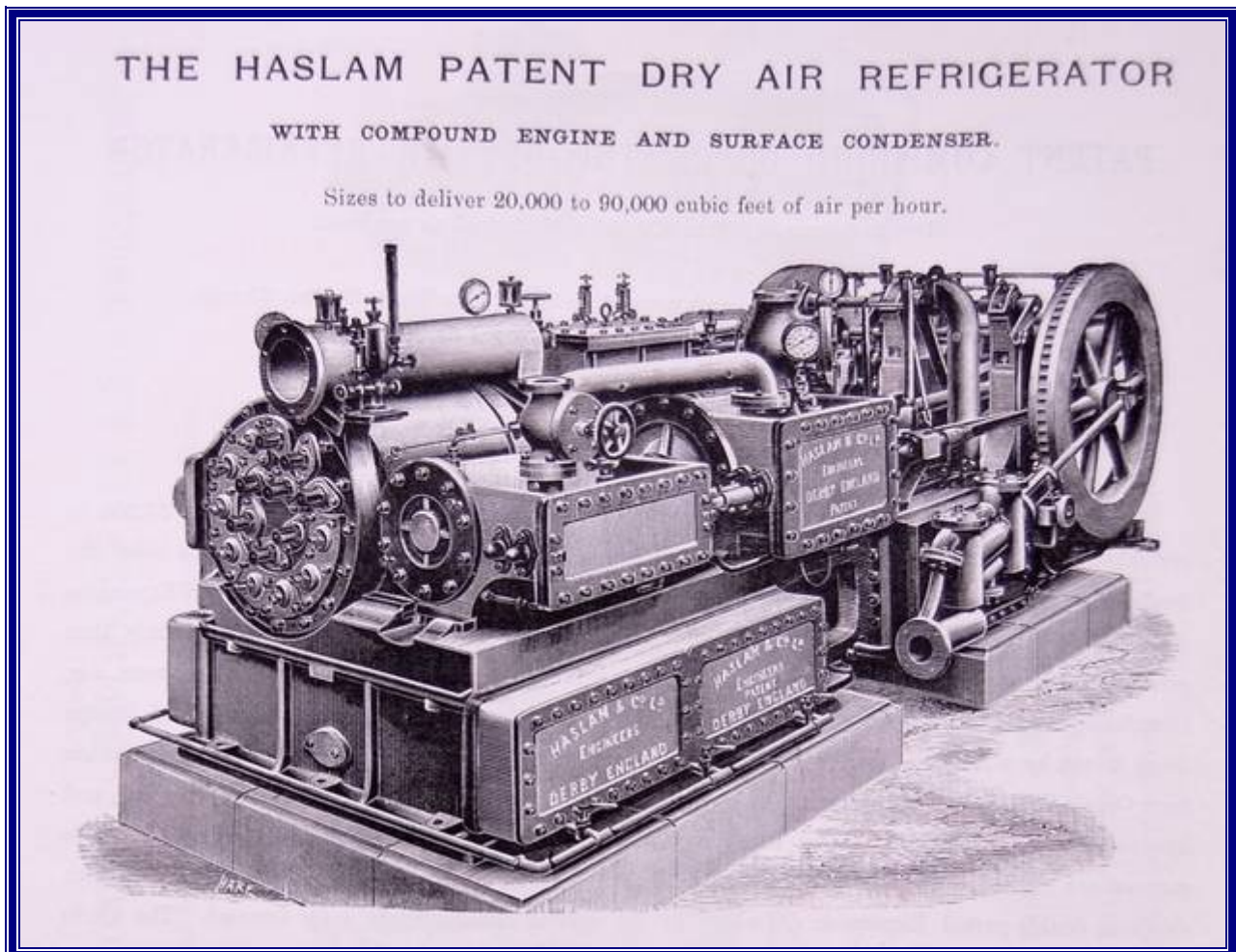
REGISTERED & PATENTED UNDER THE PATENT ACTS OF 1883 & 1890

The Bell-Coleman refrigerating machine was patented in 1877



The *Dunedin* successfully transported meat in 1880

The Haslam Foundry & Engineering Company Ltd



A Haslam cold-air machine

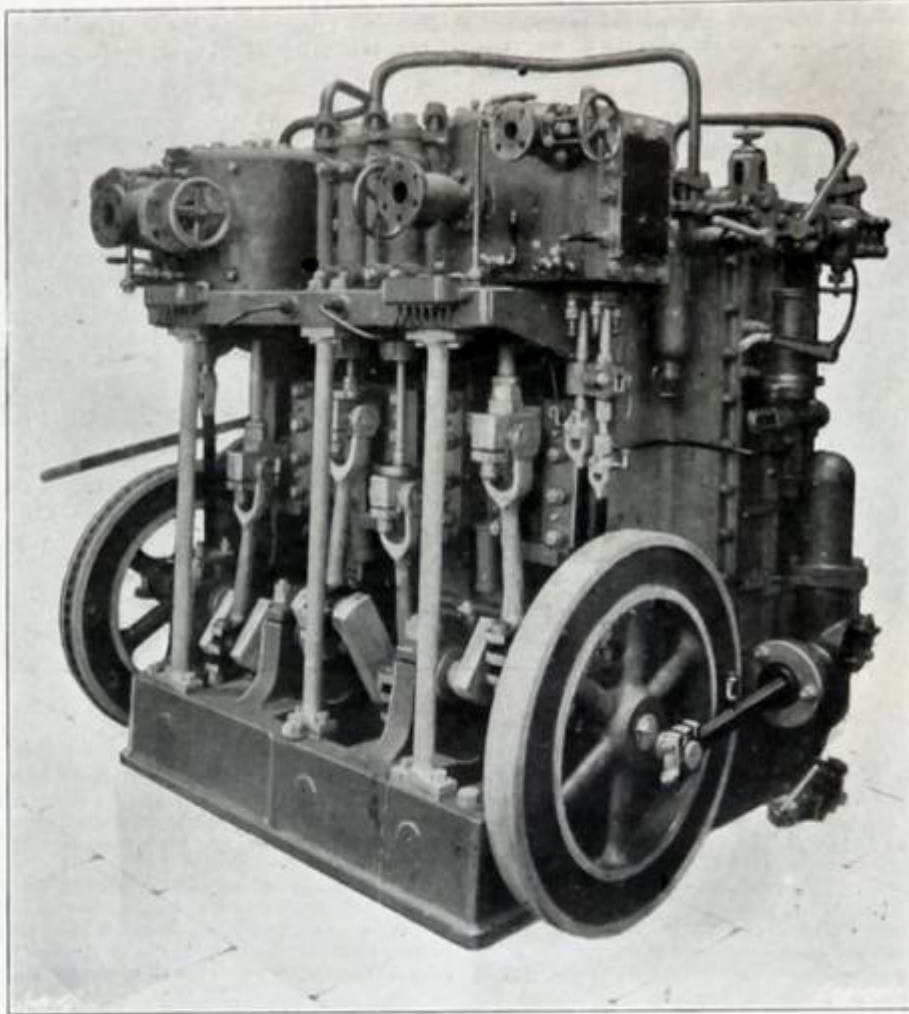


Fig. 48—REFRIGERATING MACHINERY, S.S. VICTORIAN AND VIRGINIAN—HASLAM

Haslam refrigeration of 1907

HASLAM'S DRY-AIR FREEZING MACHINES,

Made under the Haslam & Bell-Coteman Patents.

USED FOR THE PRESERVATION OF FOOD ON BOARD SHIP AND ON SHORE.
ADOPTED BY THE LEADING SHIP OWNERS AND MEAT COMPANIES IN ALL PARTS OF THE WORLD.

HASLAM'S Cane Mills and Sugar Machinery.

HASLAM'S Hydraulic Presses for all Purposes.

SPECIAL MEDAL and AWARD, Sydney Exhibition, N.S.W. | GOLD MEDAL, Fisheries Exhibition, London, 1883
GOLD MEDAL, Liverpool Exhibition, 1886. | Calcutta " Calcutta, 1884.
GOLD MEDAL, Havre Exhibition, 1887.

The HASLAM FOUNDRY & ENGINEERING Co. Lim. Derby.

Telegraphic Address: 'ZERO, DERBY.'

[4]

Advertisement of 1891

Telegraphic Address "ZERO, DERBY." ESTABLISHED 1824. Telephone No. 50. A. B. C. Code used.

The Haslam Foundry & Engineering Company,
INCORPORATED WITH **LIMITED,**
PONTIFEX & WOOD, LONDON,
UNION FOUNDRY, DERBY,
AND 34, NEW BRIDGE STREET, LONDON, E.C.

Makers of **HASLAM'S DRY AIR FREEZING MACHINES**, used for the Preservation of Food on board ship and on shore; adopted by the leading Shipowners and Meat Companies in all parts of the world.
Makers of **ICE-MAKING MACHINES AND REFRIGERATING MACHINES** on the Pontifex and De-La-Vergne system.

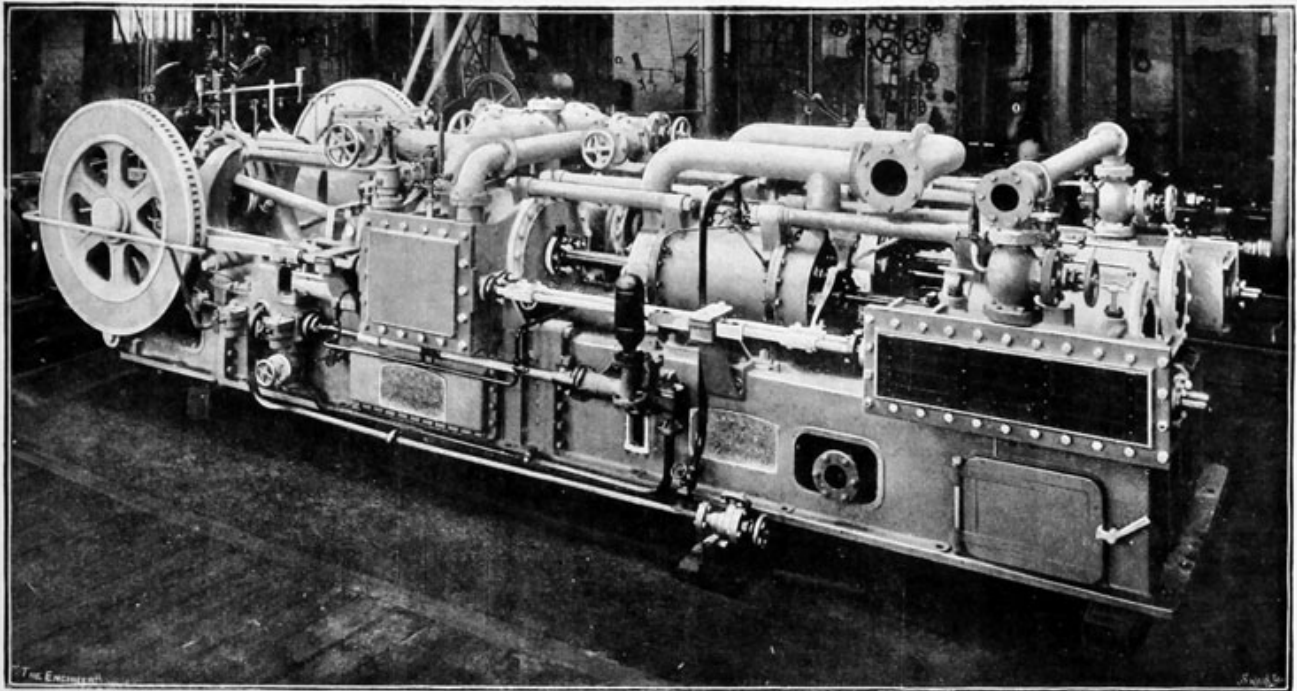
SUGAR MACHINERY, DISTILLING PLANT, BREWING PLANT, STEAM AND FIRE COPPERS, HYDRAULIC AND SCREW PRESSES of all kinds, **IRON AND BRASS FOUNDERS, COPPERSMITHS, &c., &c.**

9

Advertisement of 1895

REFRIGERATOR—S. S. RUHINE

MESSES HASLAM AND COMPANY, DERBY, ENGINEERS



Haslam marine refrigerating machine of 1892

Ice-Making and Refrigerating Machinery

ON FOUR DIFFERENT SYSTEMS.

|| DRY AIR,
AMMONIA COMPRESSION,
AMMONIA ABSORPTION,
CARBONIC ANHYDRIDE (C.O.).

*Used by all the leading COLD STORAGE
COMPANIES, SHIP OWNERS and BREWERS
throughout the World.*

CATALOGUE AND ESTIMATES ON APPLICATION.

THE
HASLAM Foundry & Engineering Co.,
Limited,

INCORPORATED WITH

PONTIFEX & WOOD, LTD.,

UNION FOUNDRY:
DERBY.

34, New Bridge Street,
LONDON E.C.

REFRIGERATION

Cold Storage & Ice Making

ON THE AMMONIA AND CO₂
COMPRESSION SYSTEMS
FOR LAND AND MARINE
: : INSTALLATIONS : :

|| || || ||

HASLAM

Foundry & Engineering Co.,
Ltd.

Incorporated with PONTIFEX & WOOD

UNION FOUNDRY, DERBY

541-543 SALISBURY HOUSE,
LONDON WALL, E.C.2

ZERO, DERBY

778 & 779

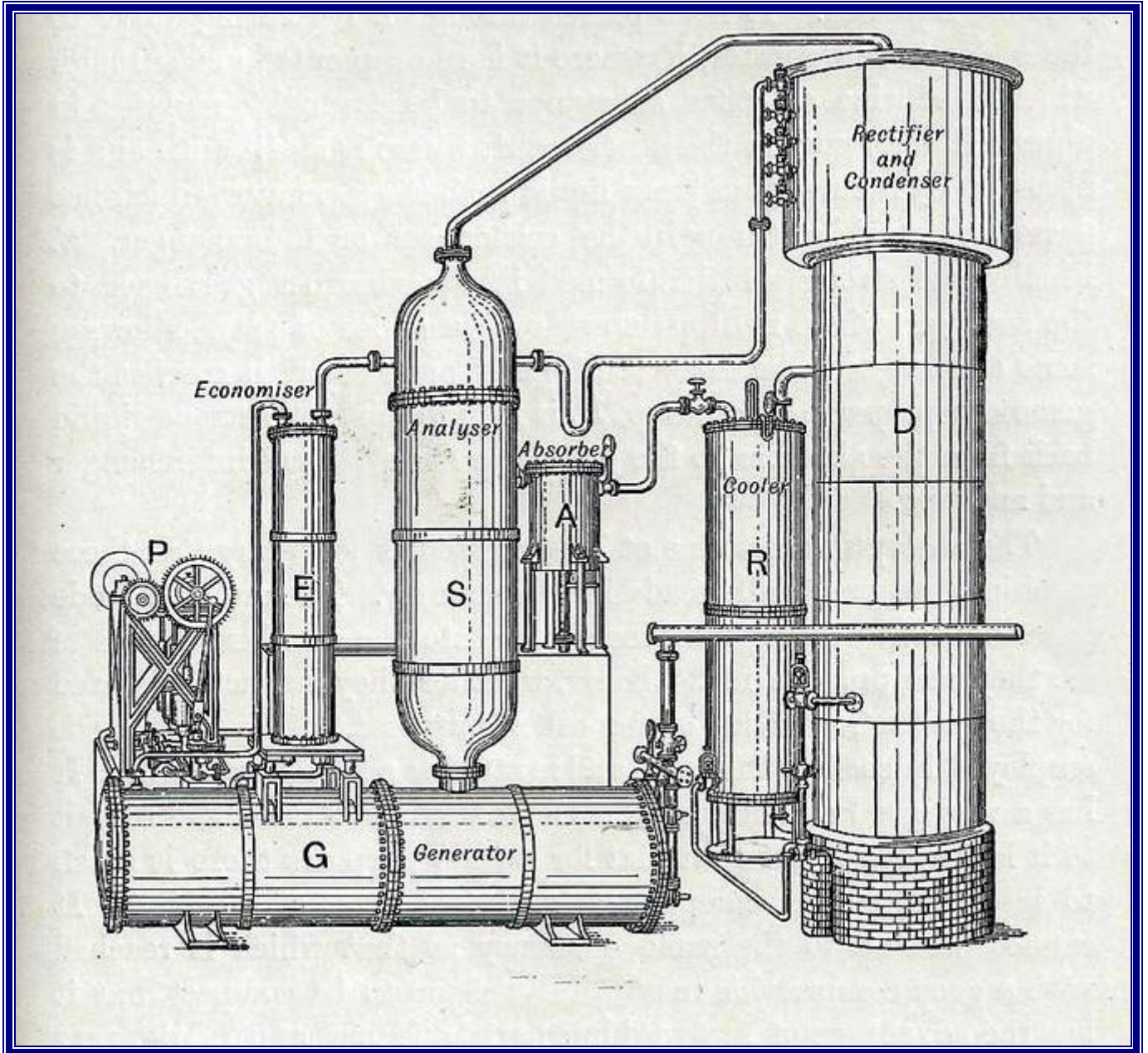
TELEGRAMS :

TELEPHONE;

PONFEX, LONDON

862 LONDON WALL

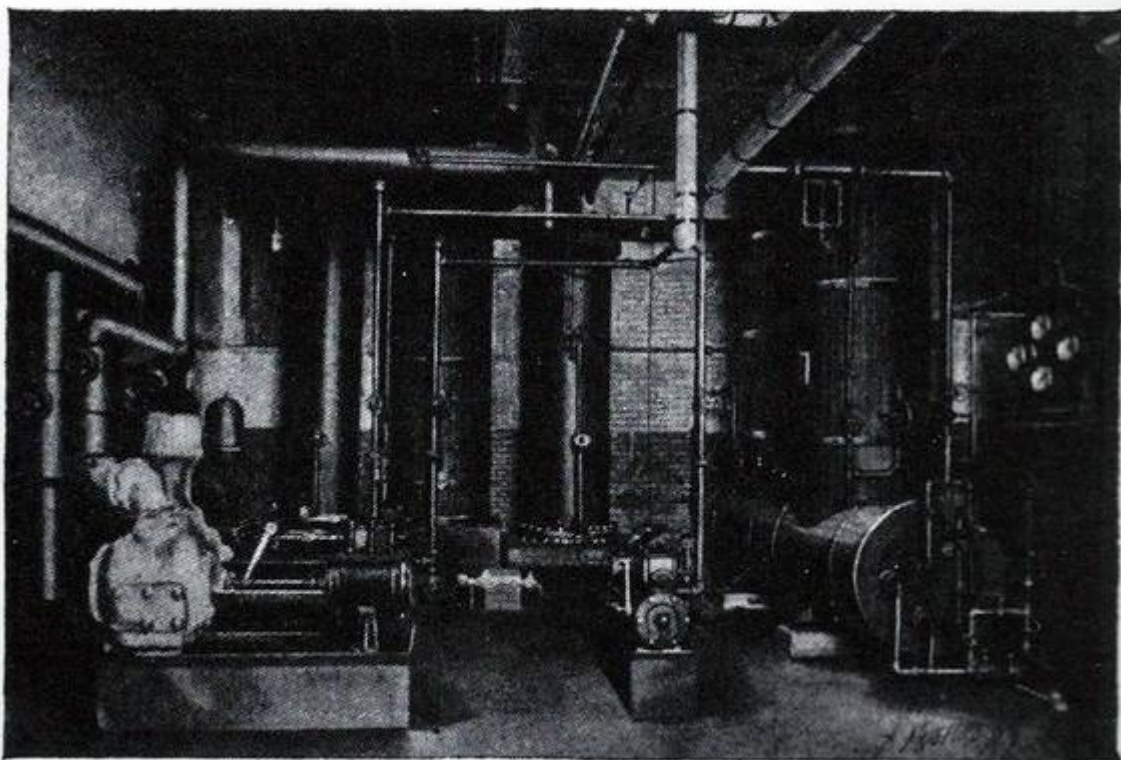
Pontifex & Wood Ltd



Pontifex & Wood ammonia absorption machine, possibly the 1876 design

THE
PONTIFEX-HENDRICK
ICE MAKING AND REFRIGERATING MACHINE
(REFRIGERANT—ANHYDROUS AMMONIA.)

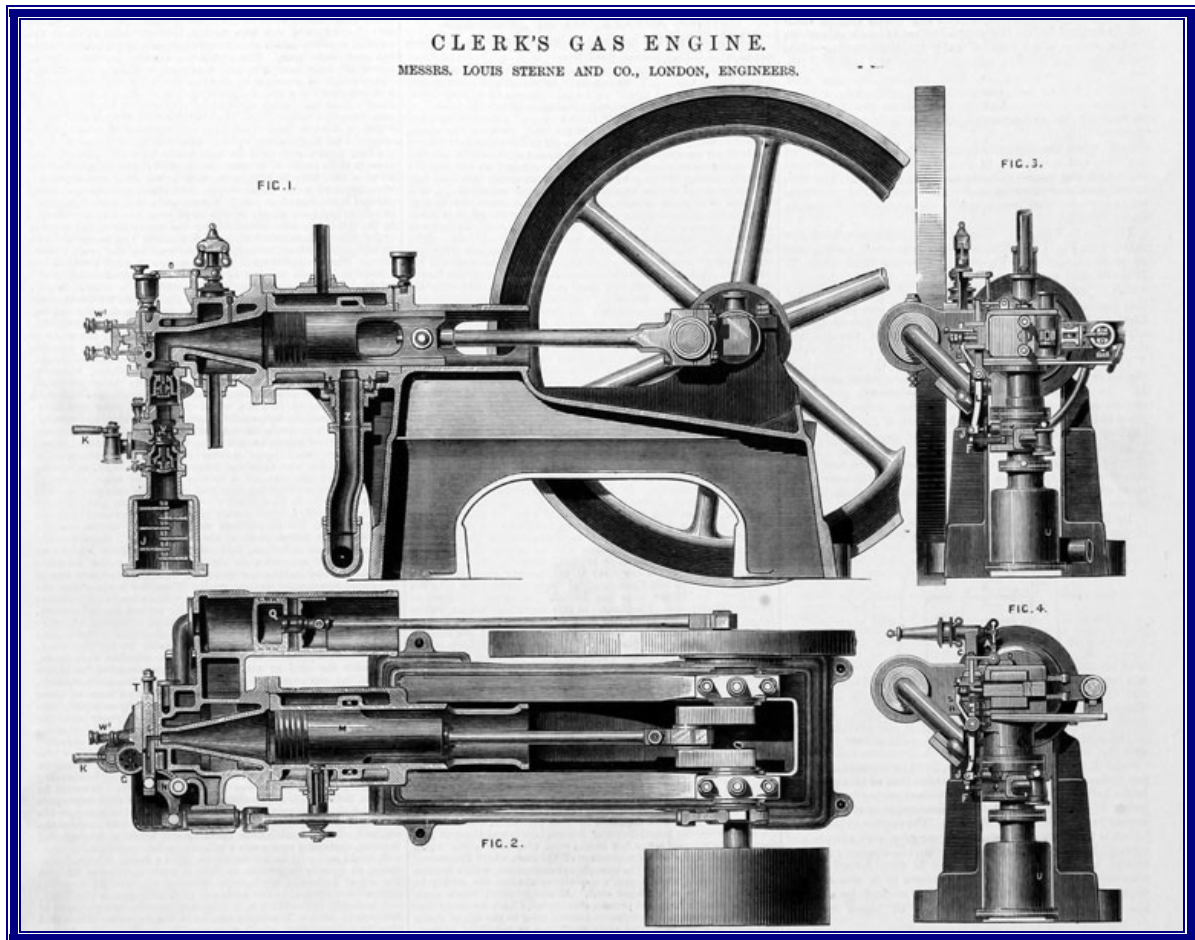
SPECIALLY ADAPTED FOR LOW TEMPERATURES IN
FREEZING AND COLD STORAGE HOUSES, CHEMICAL
WORKS, OIL REFINERIES, FISH FREEZERS, FUR STOR-
AGES, HOTELS AND RESTAURANTS, Etc., Etc.



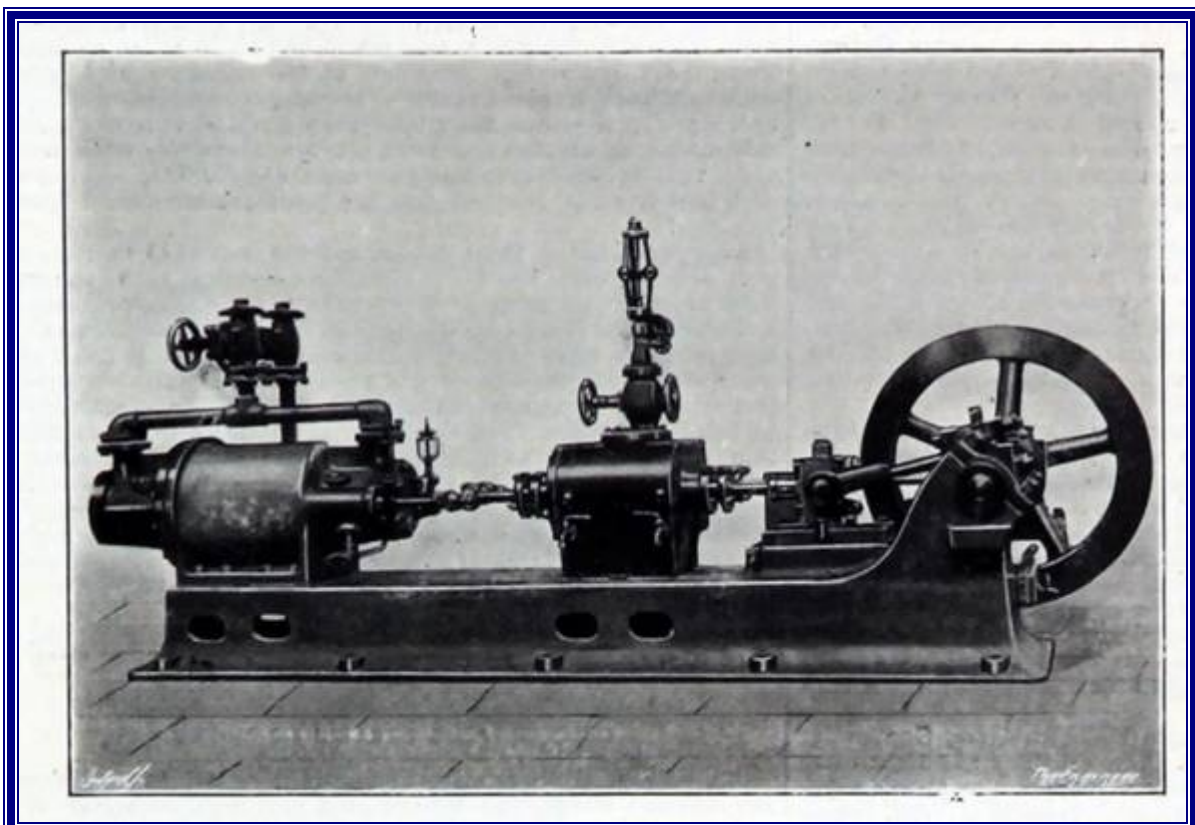
The Carbondale Machine Co.,
CARBONDALE, PA.

NEW YORK: 141 BROADWAY. CHICAGO: 61 PORTLAND BLOCK.
BOSTON: 544 TREMONT BUILDING.
PITTSBURG: 727 PARK BUILDING.

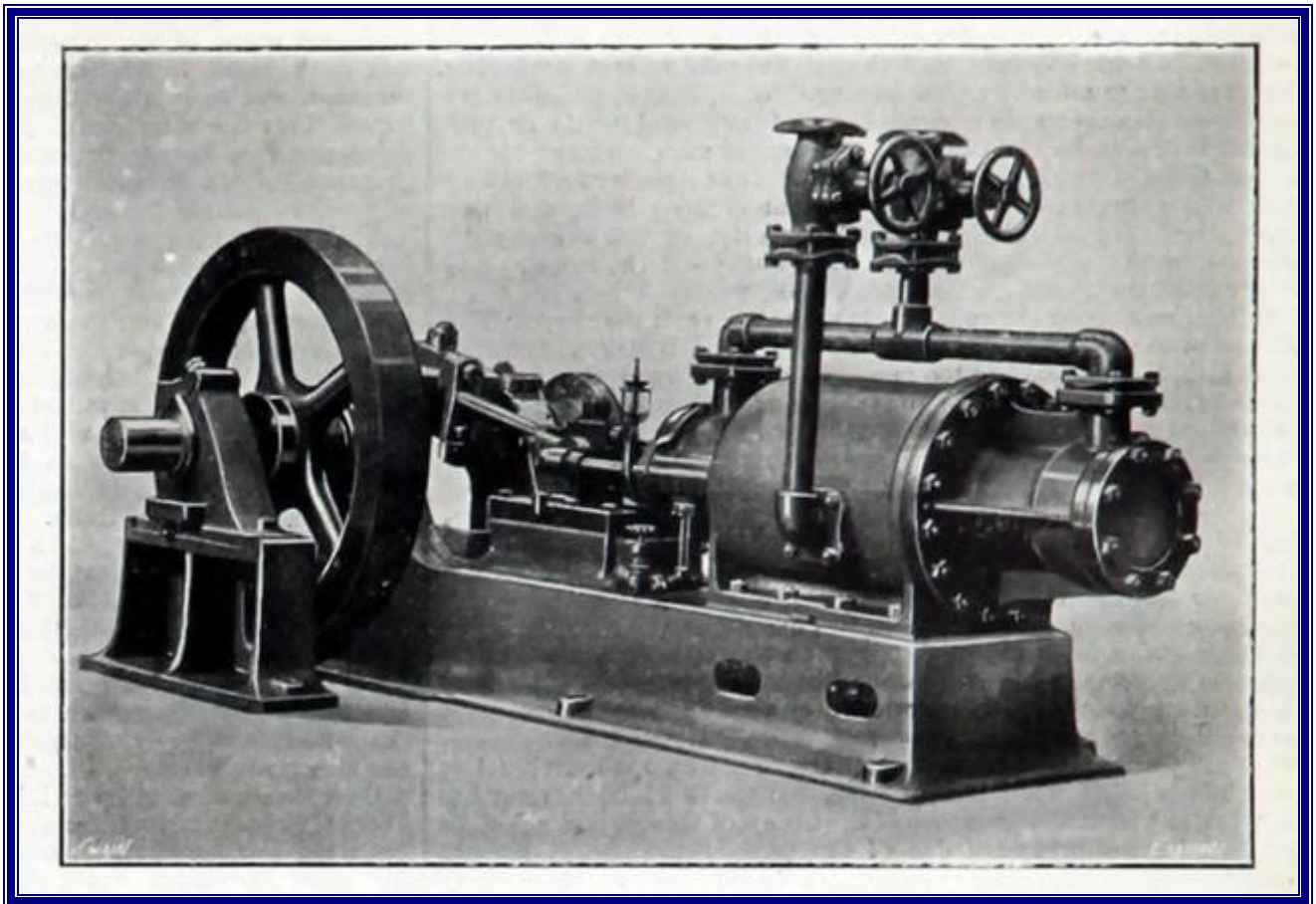
L Sterne & Company



Clerk's Gas Engine of 1885



Gas or air compressor of 1905



Another gas or air compressor from 1905



Glasgow factory of L Sterne & Company

Postscript



Abandoned Haslam refrigerating machines

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