NEGRETTI & ZAMBRA

Centenary

1850-1950

NEGRETTI & ZAMBRA LTD.

122, Regent Street,

London, W. 1.

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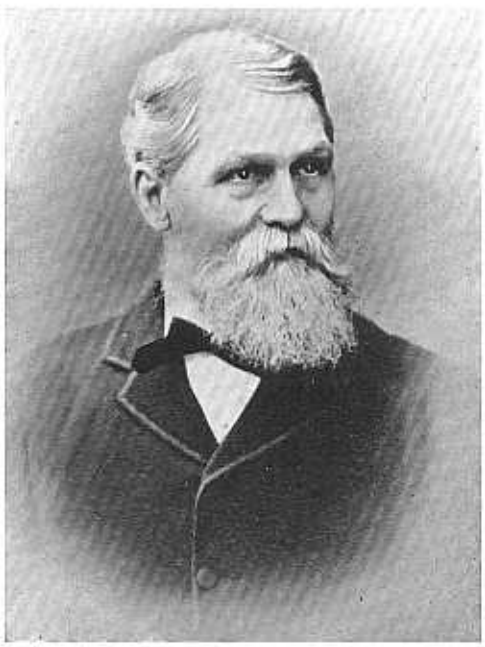
An illustrated record since the firm's foundation

ENRICO ANGELO LUDOVICO NEGRETTI

Born 1818
Died 1879



JOSEPH WARREN ZAMBRA

Born 1822
Died 1897

Como, birthplace of Henry Negretti, circa 1830

The firm was founded in 1850 by H. Negretti and J. W. Zambra and soon gained a good reputation both at home and abroad owing to the excellence of its products. In the early days the firm's activities were confined to the manufacture of meteorological or, as they were called then, Philosophical Instruments, and several patents were granted to Negretti & Zambra covering many improvements in design and construction. In 1851 we patented a maximum thermometer and the following is an extract from the Report of the Astronomer Royal, May, 1852 :—

" We have for several years been very much troubled by the failures of the Maximum Self-registering Thermometer .

St. Gotthard Pass, crossed by the founder on his journey to London

. . . a construction invented by Negretti & Zambra appears likely to evade this difficulty . . . the specimens of this instrument we have tried answer very well."
Even now, nearly 100 years after, this type of maximum thermometer is in universal use and the only one employed for Meteorological readings.

Old Leather Lane, original site of Henry Negretti's first enterprise, 1843


This Indenture

Partnership Indenture between Henry Negretti and Joseph Zambra, dated April 24th, 1850

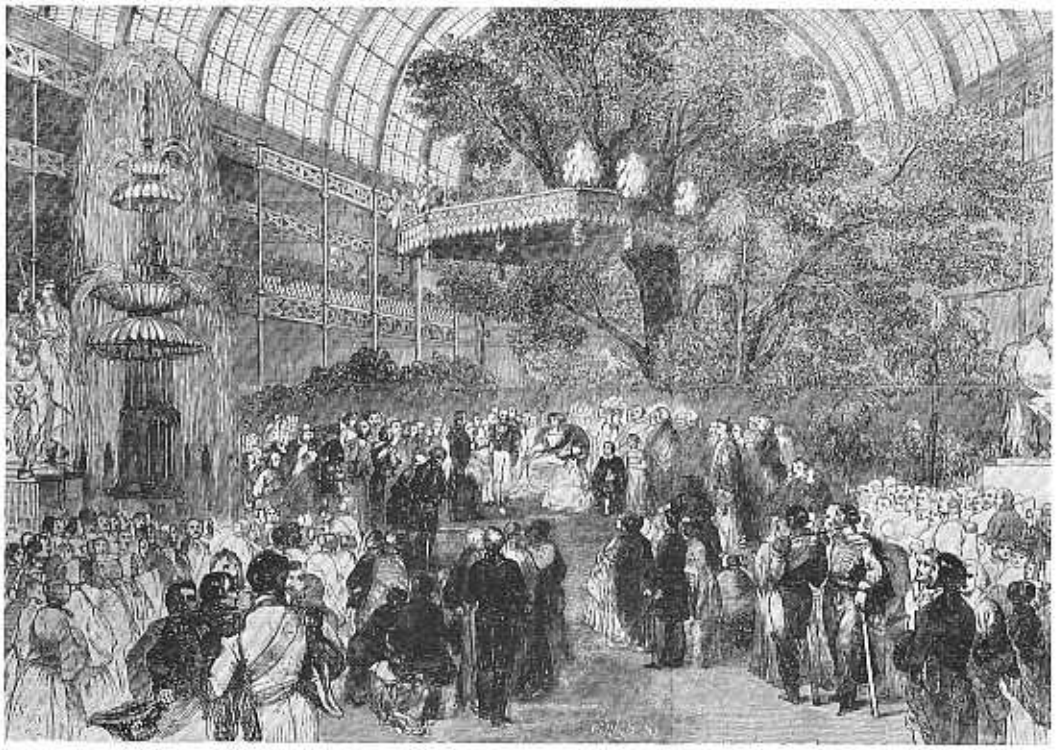
In 1857, we specially devised and constructed for Admiral Fitzroy the double bulb Deep Sea Thermometer for taking sea temperatures at great depths. This is the only type employed at the present day for great depths and has been made for depths up to 15,000 feet and to withstand a pressure of seven tons without damage. Another important improvement of those early days was enamelling the backs of thermometer tubes which enabled an extremely fine thread of mercury to be seen and consequently a much more sensitive thermometer to be employed. Practically all present day glass thermometers have enamelled backs.

Hatton Garden—the original premises of the partnership

At Admiral Fitzroy's suggestion we carried out improvements in the construction of Mercurial Barometers so as to enable the instruments to withstand the concussion on board ship arising from the discharge of heavy guns. In this connection it is interesting to read part of the report from Capt. Hewlett, C.B., to Admiral Fitzroy :—

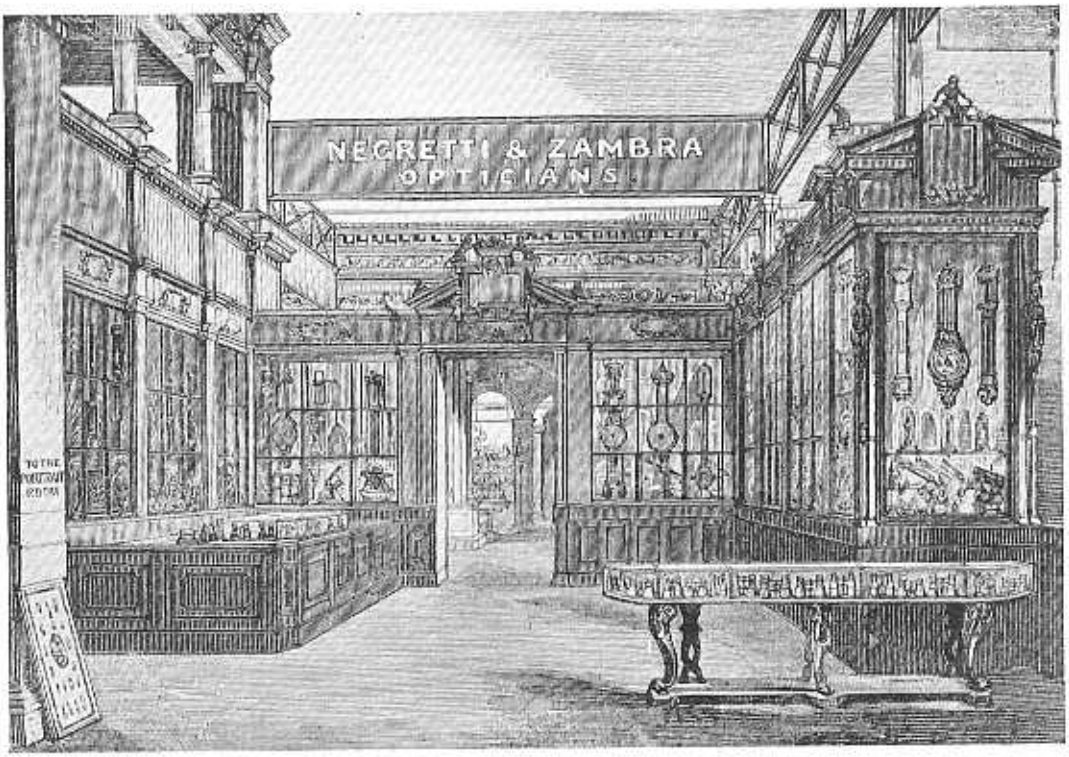
"In the third series of experiments, Mr. Negretti being present, five of the new pattern barometers were subjected to the concussion produced by firing a 68-pounder gun with shot and 16 lb. of powder."

Rather a different charge to that employed at the present day—but that was in 1863 over 80 years ago.



The opening of the Great Exhibition by Queen Victoria on May 1st, 1851

Other improvements were made in Aneroid Barometer construction and the instruments used by Mr. Glaisher in his balloon experiments were made by Negretti and Zambra. In his "Travels in the Air," page 89, he writes—"A third Aneroid graduated down to five inches . . . read the same as the Mercurial Barometer throughout the high ascent to seven miles, September 5th, 1862. I have taken this instrument up with me in every subsequent high ascent."



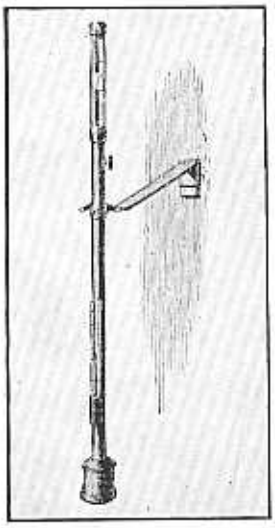
The Negretti and Zambra showroom at the Crystal Palace, c. 1855

We mention these various improvements just to show that as the demand for scientific instruments has increased we have always from the first endeavoured to produce suitable instruments to give satisfactory results under exacting conditions and that from the early days quality has been always our first consideration. In the circumstances it was not surprising that the firm received the Highest Awards at all the International Exhibitions at which they showed their instruments.

Admiral Robert Fitzroy, 1805 1865—the eminent hydrographer and meteorologist

The first award was at the 1851 Exhibition in London where they received the only prize medal award for Meteorological Instruments. From the early days all Scientific Expeditions whether to the Poles or elsewhere were equipped with some of Negretti and Zambra's instruments.

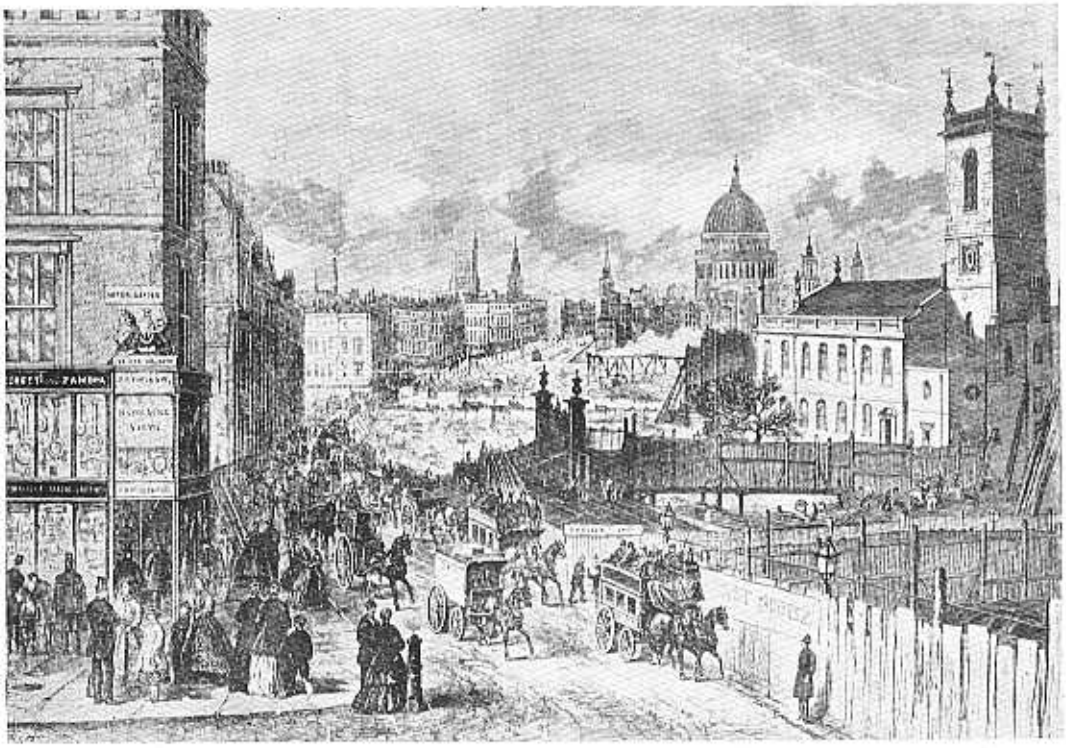
Towards the end of the nineteenth century they increased their range of manufacture by making a number of Optical Instruments such as Telescopes both Terrestial and Astronomical, also Theodolites, Levels, Gun Sights, etc. At the same time a number of improvements were introduced dealing with Recording Rain Gauges, Barometers and other Meteorological Instruments which enhanced the reputation of the firm both at home and abroad. During the 1914/1918 war the firm



The Fitzroy gun barometer named after the admiral

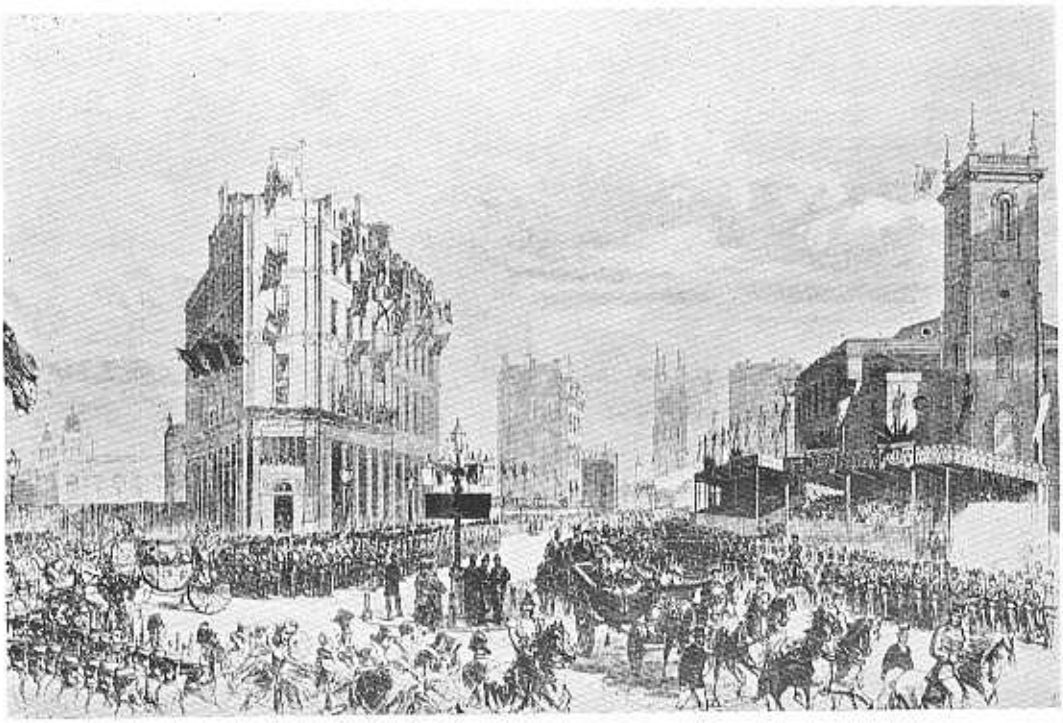
Mr. James Glaisher, F.R.S., 1809—1902, who used N. and Z. instruments in his balloon experiments

was almost entirely engaged on work for the Ministry of Munitions on the production of various instruments. When the war ended it was decided to give up the manufacture of all optical instruments and to concentrate on the production and development of Industrial and Aeronautical Instruments. In 1920 at the request of the Air Ministry we produced and patented a Mercury in Steel Distance Thermometer for taking Oil and Air Temperatures in Aircraft.



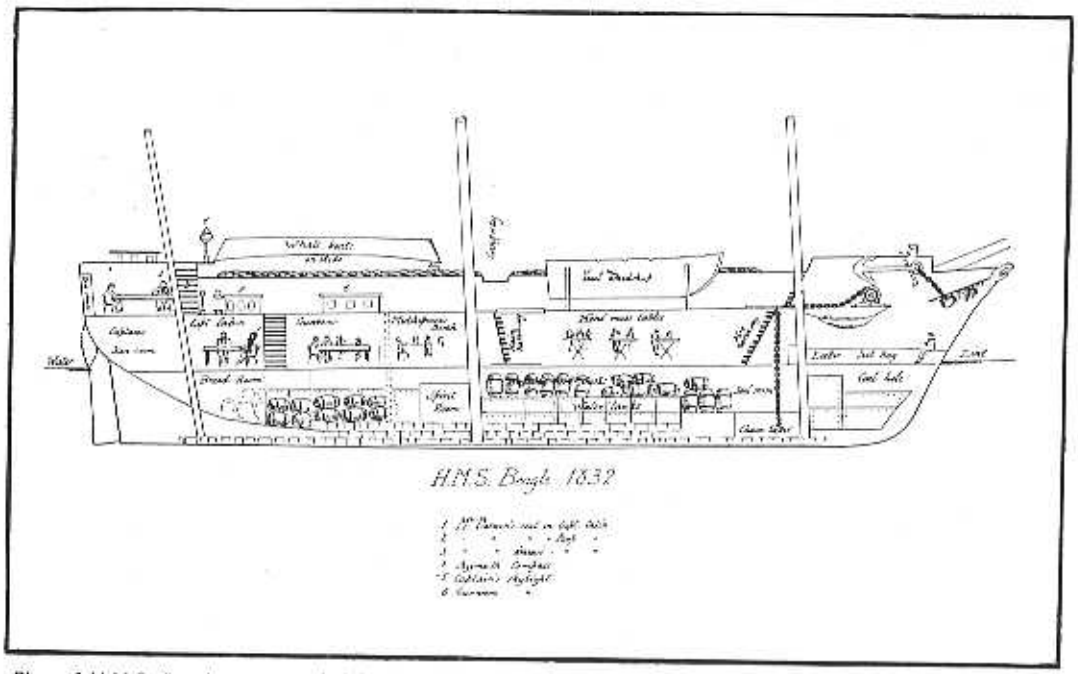
Holborn Viaduct under construction in 1867 with Negretti and Zambra's Hatton Garden premises in the foreground

The same principle was also employed for use in industrial processes as well as for Boiler House and Marine Work and a very large demand was soon found for these instruments both at home and abroad. During subsequent years between the wars other instruments were developed to meet the Air Ministry requirements—such as Boost Gauges, Transmitting Oil



The opening of Holborn Viaduct in 1869 showing the firm's new premises, which were destroyed by enemy action in 1941

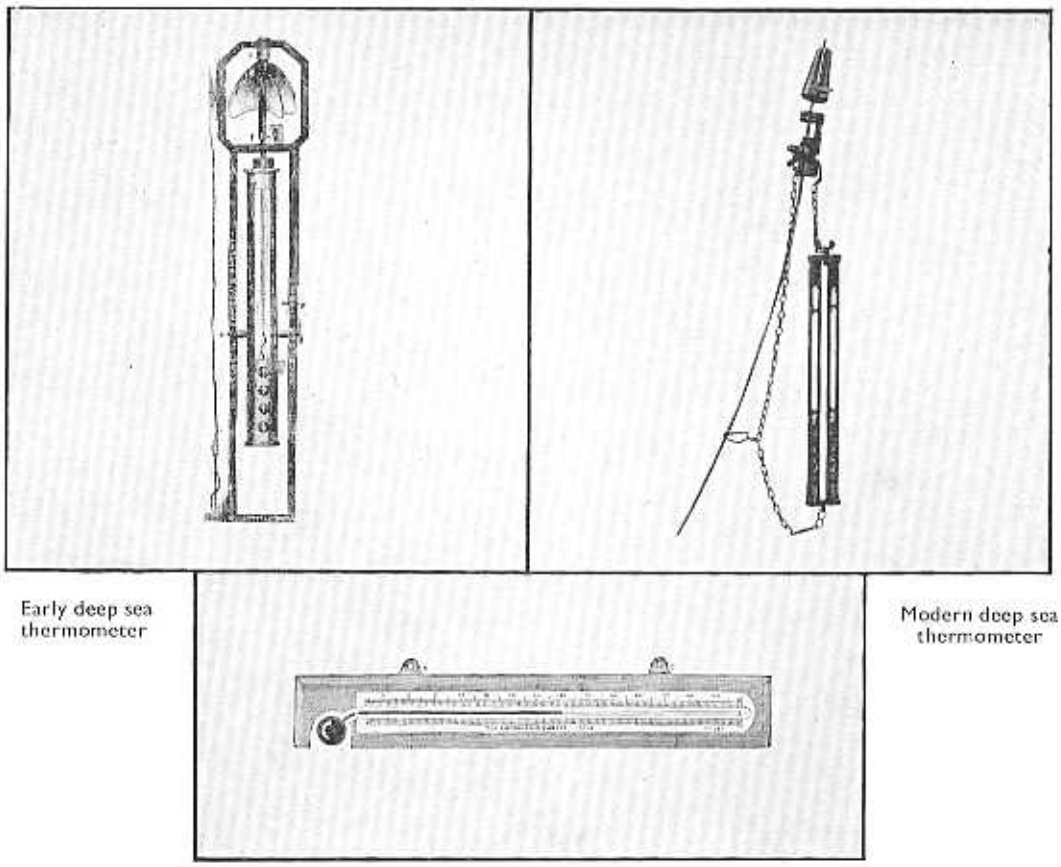
Pressure Gauges and Transmitting Fuel Pressure Gauges all for use in Aircraft, and large numbers were supplied to the British Government and also for foreign powers. Another very important development was the hardened and tempered steel Diaphragm for Boost Control of Aero-Engines which Negretti and Zambra introduced in 1930.



Plan of H.M.S. *Beagle*, commanded by Admiral Fitzroy, in which Mr. Charles Darwin sailed with the firm's deep sea equipment

Meanwhile other industrial instruments were introduced such as Electrical Resistance Thermometers and Thermocouple Pyrometers, Pressure and Draught Gauges, also Automatic Control Instruments for Temperature, Pressure, Draught, etc.

Finally, at the request of the Air Ministry and several prominent Aero-Engine manufacturers, Negretti and Zambra developed and patented a Fuel Flowmeter for Aero-Engines which



Early deep sea thermometer

Modern deep sea thermometer

Patent self-registering standard maximum thermometer

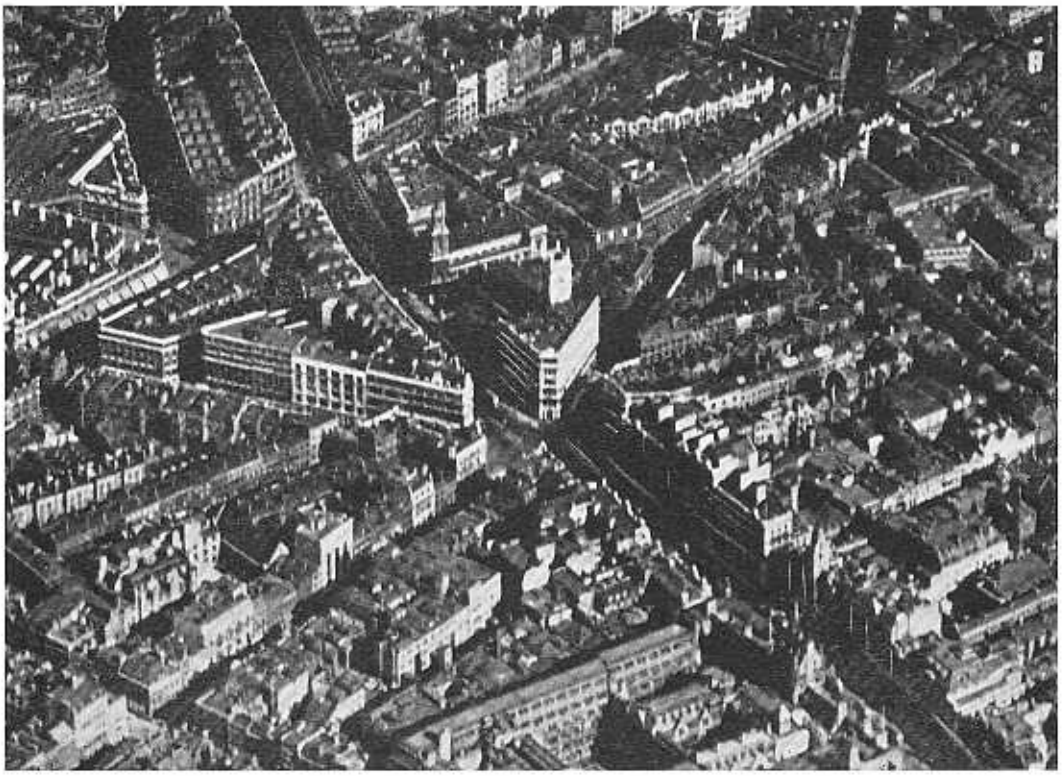
has only recently been put on the market and appears to fill a long felt want. The developments introduced during the wars have resulted in a great increase in demand and several extensions to our Works have resulted.

122 Regent Street in about 1830

During the last war the Government provided us with a factory at Chesterfield where we manufactured Aircraft Instruments and Boost Controls, and where 450 people were employed. Meanwhile our own Works in London were busy making other essential instruments. The Ministry of Aircraft

122 Regent Street today

Production also provided us with premises at Chobham, Surrey, where other production and research were carried out. Our Diaphragm Boost Controls were also manufactured in the U.S.A. under licence for the U.S.A.A.F. At the present time we have 821 employees in this country.



Aerial view of the Holborn Viaduct premises

Recently in order to increase our production and to safeguard our future development we purchased a modern factory at Aylesbury of 50,000 square feet with land for extension where some time in the distant future all our production could be carried out and where all employees could live near their work and enjoy the amenities of the country.

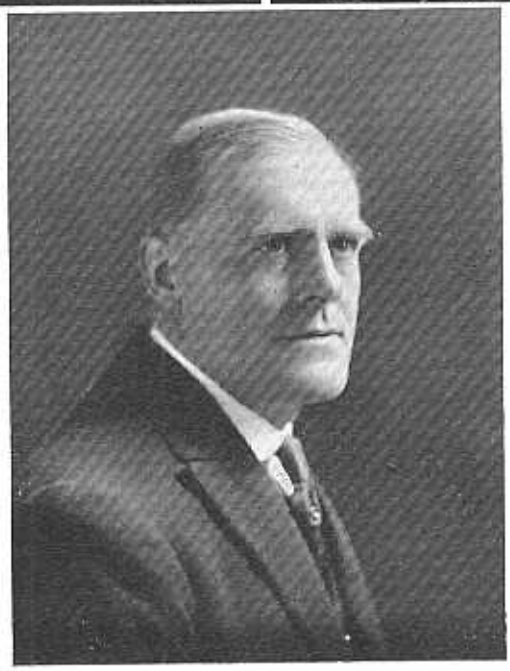
H. P. J. Negretti

J. C. Zambra

M. W. Zambra, senior

H. N. Negretti

P. E. Negretti



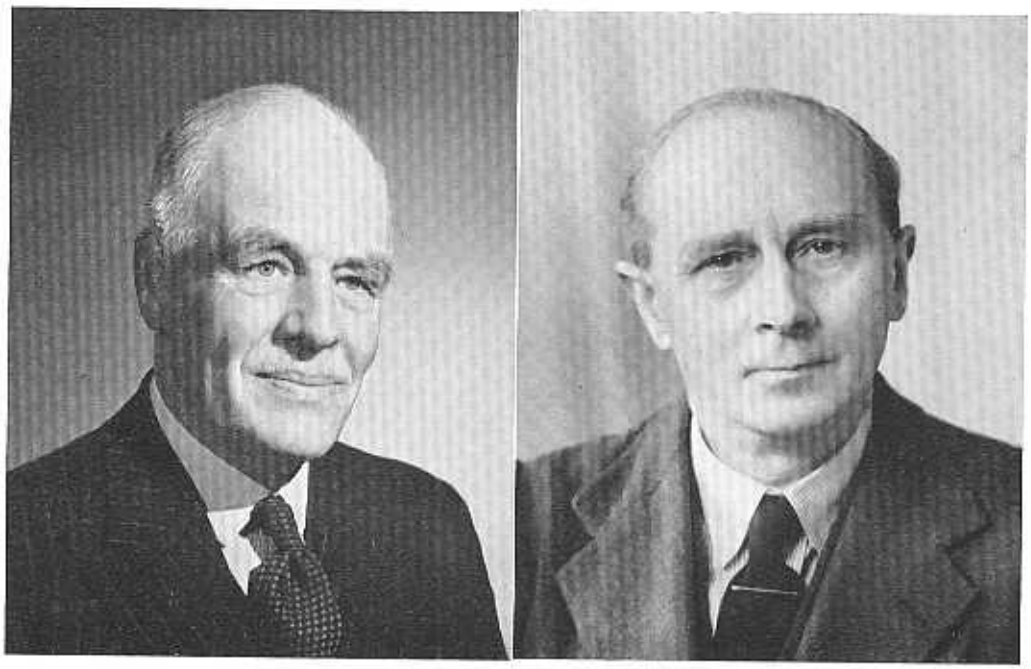
M. W. Zambra, junior

P. A. Negretti

P. N. Negretti

When Henry Negretti died in September, 1879, a new partnership was formed between his son, H. P. J. Negretti and J. W. Zambra and his son J. C. Zambra.

J. W. Zambra retired in September, 1888, and M. W. Zambra joined his brother J. C. Zambra and H. P. J. Negretti in partnership.



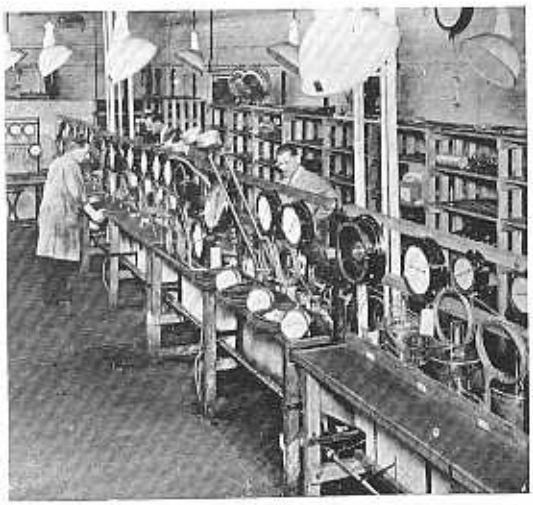
S. H. Pitt

H. W. Ibbott

When J. C. Zambra died in September, 1892, H. P. J. Negretti and M. W. Zambra carried on the partnership till September, 1909, when M. W. Zambra retired. Then a new partnership was formed between H. P. J. Negretti and his sons Henry Noel and Paul Ernest with M. W. Zambra, Jnr.

H. P. J. Negretti died in January, 1919, and G. Zambra joined the other

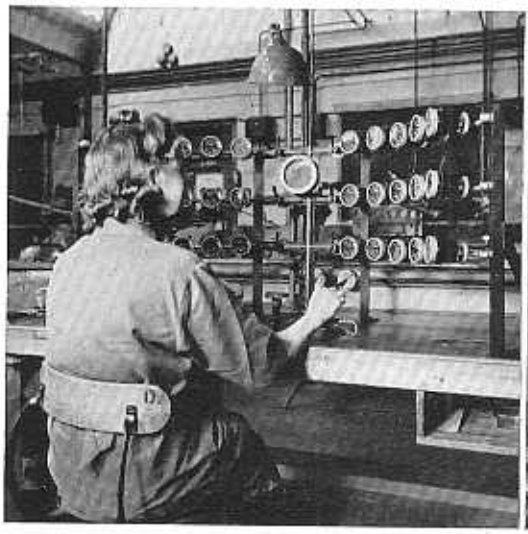
Assembling electrical instruments



Testing mercury in steel thermometers

three in partnership. He retired in September, 1921. The partnership was carried on by H. N. and P. E. Negretti with M. W. Zambra, Jnr., until September, 1935, when M. W. Zambra, Jnr. retired leaving H. N. and P. E. Negretti in partnership.

In September, 1942, P. A. Negretti and P. N. Negretti, sons of P. E. Negretti, were admitted into partnership which continued until H. N. Negretti died in December, 1945.



Checking boost gauges

Welding steel capsules

In June, 1946, for family reasons, the business was converted into a private company and into a public company in September, 1948.

The present board of directors is :—

P. E. Negretti
Chairman and Managing Director

P. A. Negretti

P. N. Negretti

S. H. Pitt

H. W. Ibbott