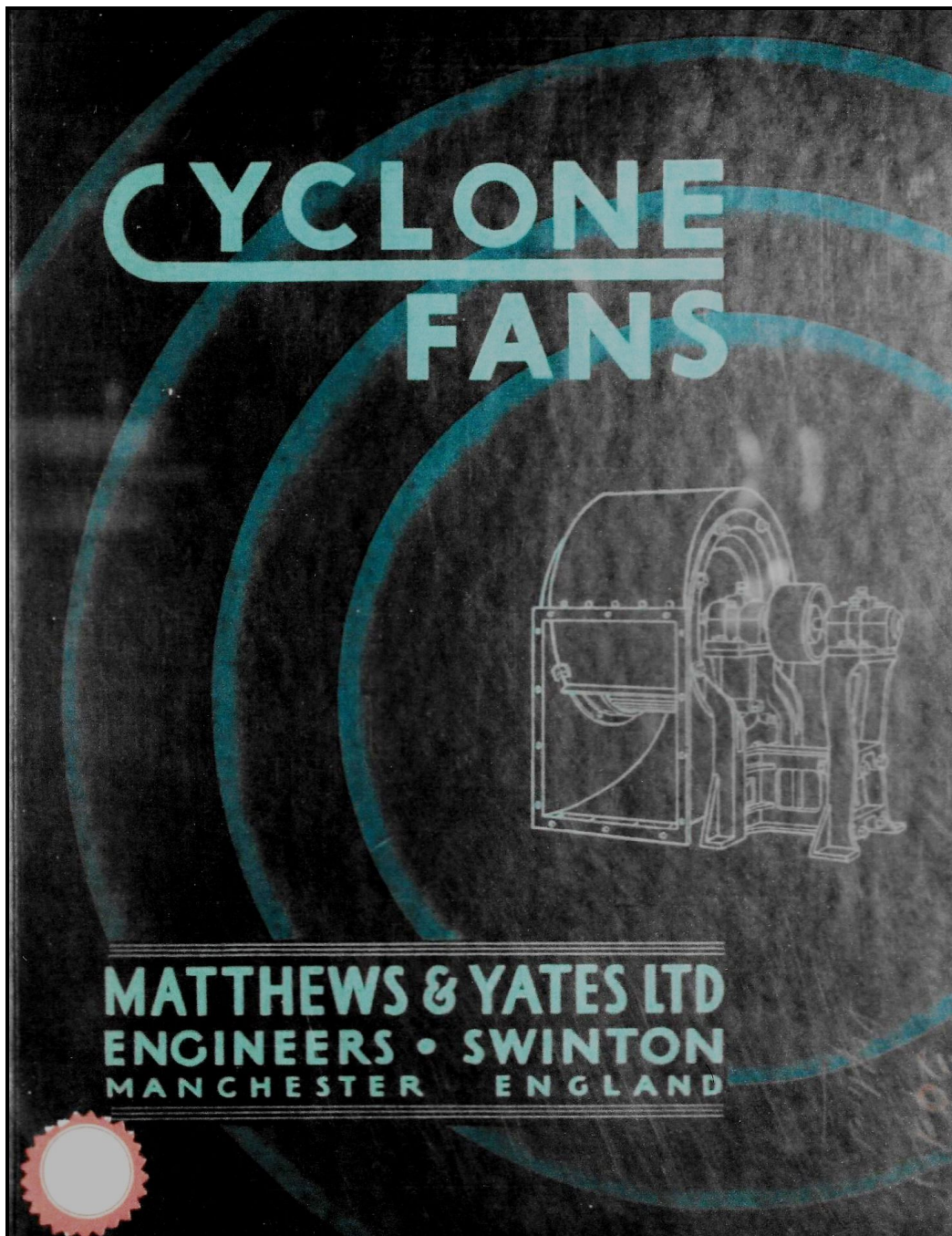


MATTHEWS & YATES LTD
Manchester
Catalogue of 1930

Centrifugal Fans



The Building Services Engineer

CIBS Journal April 1977

“Matthews & Yates Ltd—ventilating, heating, lighting and sanitary engineers, and plumbers and glaziers”—started business under this banner at the Todd Street Works, Long Millgate, Manchester in 1880.

Today, almost 100 years later, Matthews & Yates are the one of the country's leading centrifugal fan and central station air handling unit manufacturers exporting agricultural equipment, air conditioning, heating and ventilation plant and industrial fans all over the world.

The firm was first formed as a partnership between William Matthews and Joseph Yates. At this time their specialised range of products included feed water heaters, air propellers and radiators.

Before the turn of the century, Walter Yates, son of the co-founder, joined the Company and it was he, perhaps, who contributed most to the early successes of the organisation. At the time of his death in 1953 he was governing Director of Matthews & Yates. He had been an

active figure in the fan engineering field.

Throughout the years Matthews & Yates have manufactured a very wide range of products. Whilst generally related to heating or air movement, they have been as diverse as shirt dryers for commercial laundries and oxy-acetylene welding equipment, from bottle drying apparatus to electric vacuum cleaners. Matthews & Yates

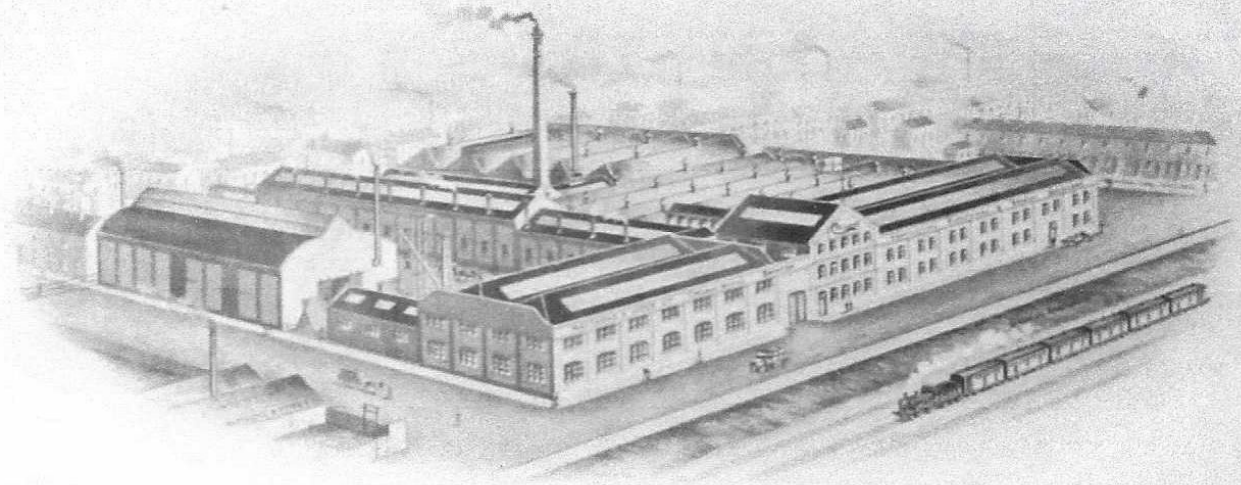
were, at one time, quite prominent electric motor manufacturers. But throughout its history the manufacture of fans has been the company's principal activity. Early catalogues list the prominent buildings incorporating Matthews & Yates equipment. These include Buckingham Palace, The Carlton Hotel, St Thomas' Hospital, and, fully described in a paper read before the IHVE in 1907 by Walter Yates, "The Ventilation of the House of Commons".

In 1969 the Company became part of the Peck Engineering Group, now known as the Doulton Engineering Group, a subsidiary of S Pearson and Son Ltd.

Walter Yates was IHVE President in 1909, and **Oswald Scott** in 1926.



CYCLONE



THE **CYCLONE** WORKS
WHERE ALL FANS DETAILED IN
THIS CATALOGUE AND MANY
OTHER SPECIALITIES ARE PRODUCED

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

FOREWORD

WHEN a firm has been established for over fifty years it is perhaps an opportune time to review its history. The business began in a small way in Manchester in the year 1882 when Mr. William Matthews and Mr. Joseph Yates formed a partnership to carry out contracts in Heating and Gas Lighting.

A year or two later Mr. Walter Yates, who had designed and patented the Cyclone Air Propeller, joined the firm and added mechanical ventilation to the operations of the Company.

By 1890 the Cyclone Works at Swinton had been built to accommodate the large increase in the demand for Fans of various kinds and other specialities which were continually being introduced.

One of the early uses to which Cyclone Fans were put was in connection with Humidifiers for moistening the air in Textile Works, and another early use was to provide the fresh air in Plenum Ventilating and Heating Plant for public buildings of various kinds. These led to a development of the Cyclone Air Conditioning Plant, and it is interesting to note that as early as 1905 Matthews & Yates Ltd. had installed a large equipment in the House of Commons. This was followed immediately, as the result of its satisfactory performance, by a Plant for the air conditioning of the private apartments of the late King Edward at Buckingham Palace, since which many plants have been installed in this country and abroad.

When Matthews & Yates began operations Mechanical Ventilation was in its infancy. A demand for Fans had to be created by providing a supply and designing methods for their use.

Matthews & Yates Ltd. are proud to have been pioneers in the design, construction and application of Fans for every conceivable purpose. They claim to be still in the forefront with Fans of the highest efficiency, due to maintaining a permanent Research Department where not only Fans but various articles used in conjunction with them, such as Heaters, Air Washers, Viscous Filters, etc., are constantly being improved upon in efficiency, construction and adaptability.

A conspicuous example of this is the S.S. or Slow Speed Multivane Fan, which gives an exceptionally high efficiency, and the H.S.C.B. or High Speed Curved Back Fan, also highly efficient, which, by its special design, overcomes the risk of overloading the driving Motor.

And further, the Cyclone Patent Laminated Fan Casing which has done so much to reduce the noise usually associated with Centrifugal Fans.

Our purpose is to serve our customers to the best of our ability and all we ask is the opportunity to do so.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

CENTRIFUGAL FANS

WE make three types of Centrifugal Cased Fans—Paddle Blade, S.S. Multivane (low peripheral speeds) and H.S. Curved Back (high peripheral speeds).

The purpose of this catalogue is to supply information that will assist in selecting the proper type and size of equipment for given requirements.

In Fans it describes the mechanical construction of the Fan components; has complete performance tables giving air output, resistance and velocity head data, together with the necessary dimensions; in fact, all the engineering data necessary for the adaptation of Fans to any ventilating or air distribution problem.

The Paddle Blade Fan was the first to be introduced some forty years ago and was used for all purposes where pressure as well as volume was required. It has given place to the Multivane Fan in most cases where clean or comparatively clean air is to be moved. But it still stands supreme where air charged with abrasive material, fluff, or such as wood refuse is to be dealt with. There are only a few straight radial blades on the runner and so choking can not take place.

The Cyclone S.S. Multivane Fans and H.S. Curved Back Fans are designed in accordance with modern practice as standardised by leading manufacturers of air moving apparatus; and embody the improvements our long experience in the production and use of Fans has determined, together with relatively small housings and large inlets and outlets, such as are generally approved by Engineers and Architects.

The Impeller is built up on a centralized hub, driving through the impeller's centre of gravity, which reduces the overhang to 50% of that of other types built up on a cone and backplate. This construction dispenses with heavy unwieldy impeller parts and gives a proper distribution of the stresses set up by a rapidly revolving impeller.

All Cyclone productions embody the results of upwards of fifty years of intimate and practical experience. The greatest care has been taken to embody all the salient improvements that make an up-to-date and efficient equipment; at the same time novelties have been avoided. Durability and sound constructional design has had first and last consideration.

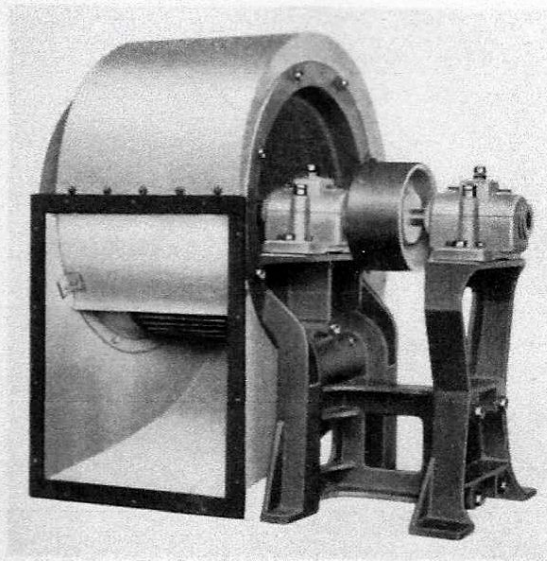
The values given in the performance tables are guaranteed within the tolerance adopted by the Fan Standardisation Committee.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

S·S
FANS

S S
LOW SPEED
MULTIVANE
FANS



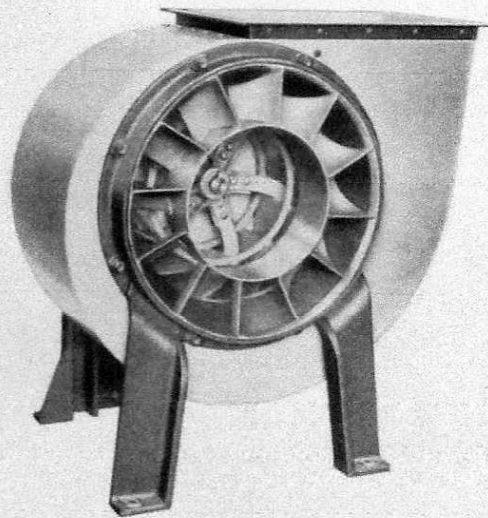
S.S. Multivane Fan No. 20 to 60 Construction.
Pulley Side. With Standard Ring Oiling Bearings.
Arrangement No. 3.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

CYCLONE

H·S
FANS

HIGH **S**PEED
CURVED BACK
FANS



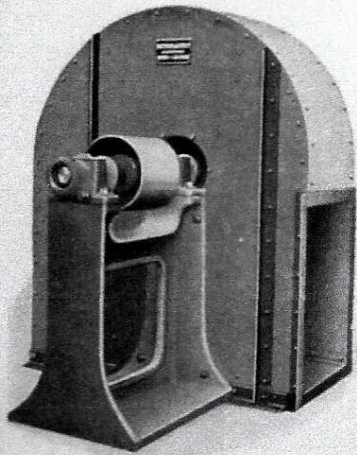
H.S.C.B. Fan, 20 to 60 Construction. Inlet Side.
Type R.3. Complete with Guide Vanes.
Arrangement No. 2.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

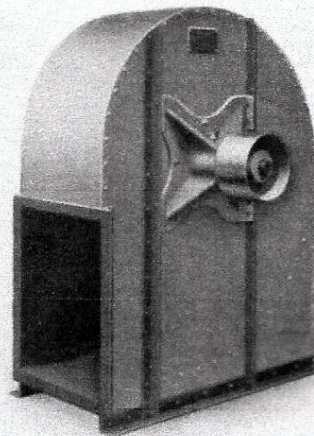
CYCLONE

**P·B
FANS**

P B
PADDLE BLADE
FANS



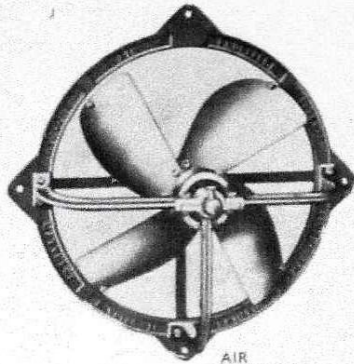
Heavy Pattern
with Ring Oiling Bearings.



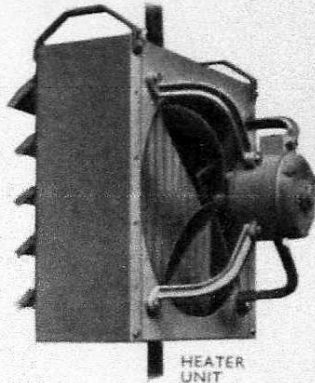
Light Pattern
with Ball Bearings.

MATTHEWS & YATES LTD., ENGINEERS, SWINTON, MANCHESTER, ENGLAND.

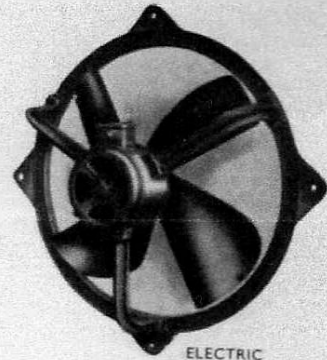
SOME OTHER **CYCLONE** PRODUCTIONS



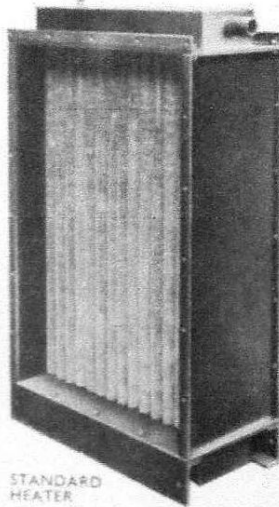
AIR PROPELLER



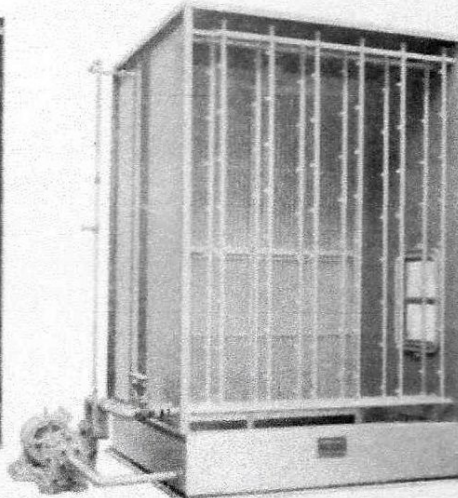
HEATER UNIT



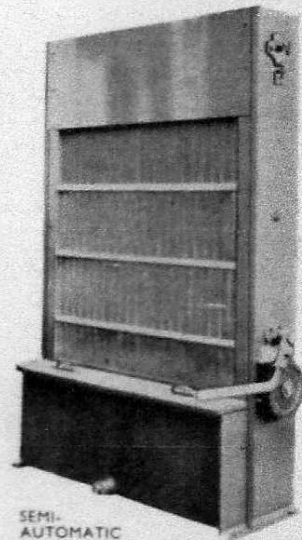
ELECTRIC FAN



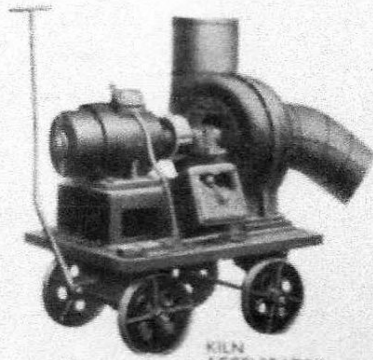
STANDARD HEATER



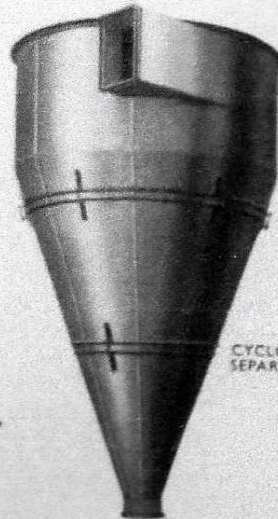
AIR WASHER



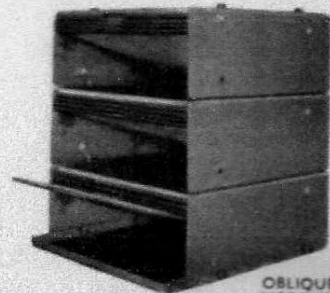
SEMI-AUTOMATIC VISCOUS FILTER



KILN ACCELERATOR



CYCLONE SEPARATOR



OBLIQUE VISCOUS FILTER

MATTHEWS & YATES LIMITED,

SWINTON, MANCHESTER.

Matthews & Yates, Ltd.,

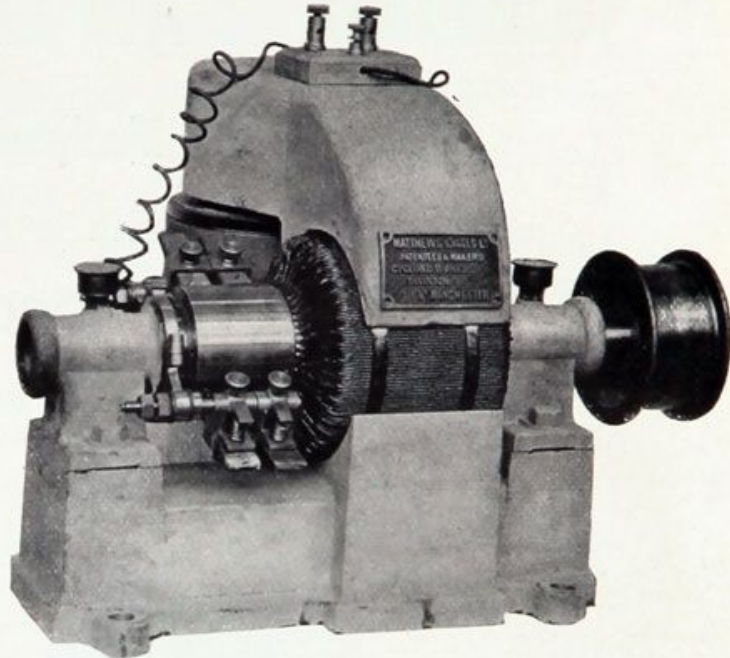
SWINTON,
MANCHESTER.

ALSO

LONDON

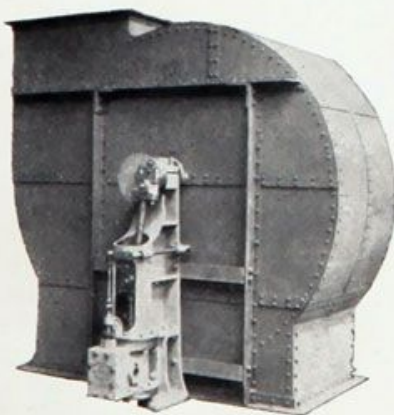
AND

NEWCASTLE-
ON-TYNE.



DYNAMOS and MOTORS, Open or Enclosed Types.

HEATING and VENTILATING SPECIALISTS.



Steel Plate
BLOWERS and EXHAUSTERS,
with Steam Engines, Electric
Motors or Belts.

CONTRACTORS TO
The Admiralty
War
Department
Office of Works
London
School Board
Most
Railway
Companies
&c., &c.

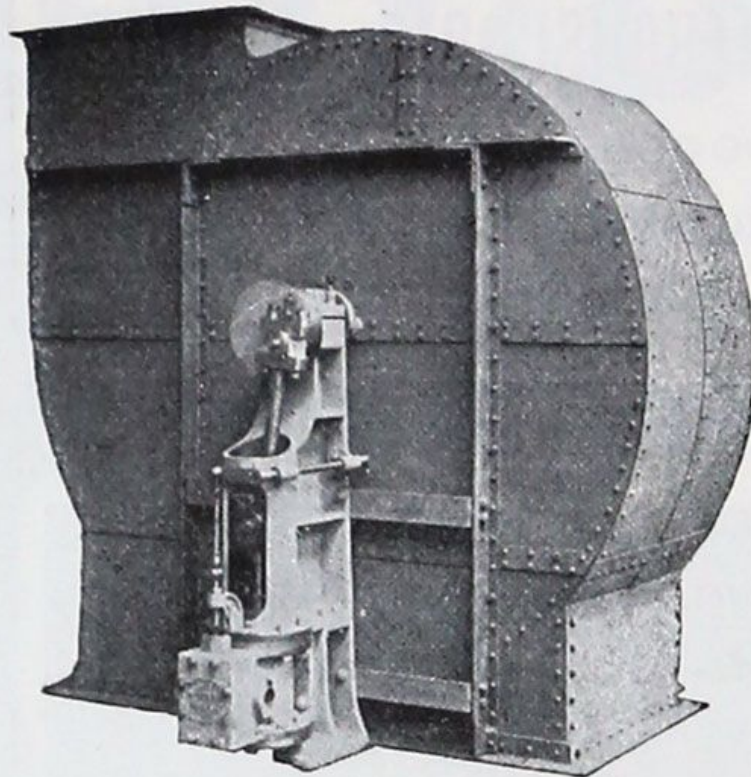


FANS for all Ventilating Purposes,
Cooling, Drying, Dust Removing,
&c.

MATTHEWS & YATES,

LTD.,

SWINTON, MANCHESTER,



For STEEL PLATE BLOWERS
and EXHAUSTERS

With STEAM ENGINES, ELECTRIC
MOTORS or BELTS.

~~~~~  
SPECIALISTS in VENTILATING and HEATING.



# Service

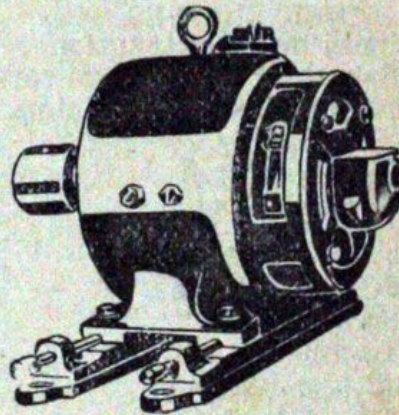
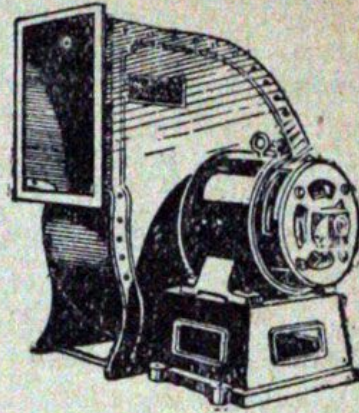
"The kind of service which proves most profitable is not measured by price to you, or by profit to us; but by a high standard of efficiency and by the complete satisfaction of both parties."

In other words, "Cyclone Service."

# CYCLONE

## Fans and Motors

are designed to give *you* the service you need. Our long and varied experience in every stage of the business has placed in our hands many facts about the possibilities and limitations of fans and motors, and we ask all users of fans to submit problems to us.



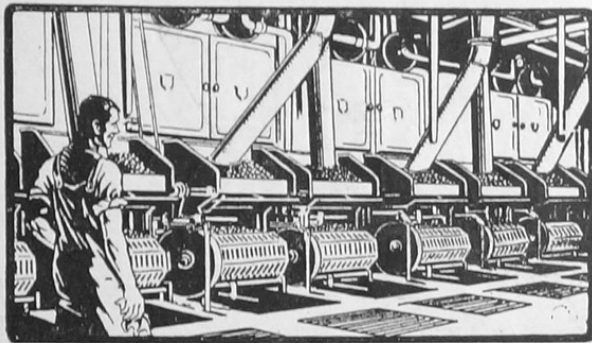
"Cyclone" Fans and Motors are used in Systems for Induced Draught, Dust Collection, Ventilation, Drying, Humidification, etc.

Over thirty years' experience enables us to guarantee definite economical results.

*Send for our Catalogue 268a.*

**Matthews & Yates**  
Limited  
**SWINTON, MANCHESTER**





## Getting full value by Induced Draught

When you are fitting labour-saving and economy-effecting devices to your boiler plant, do not neglect the very important factor in the raising of steam—DRAUGHT.

Upon a good draught depends the heat of the fires, the thorough combustion of the fuel and the reduction of black smoke.

The

# CYCLONE

## INDUCED DRAUGHT PLANT

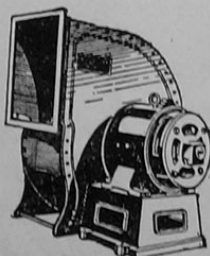
feeds to the fires the necessary amount of oxygen to ensure complete combustion. The hot glowing fires speedily evaporate the water; and this even when an inferior quality of fuel is used.

The fires are no longer dependent upon hot gases for the draught, and thus a great source of energy is freed for more useful service.

The Cyclone Induced Draught plant abolishes black smoke, burns poor quality fuel, and reduces the number of boilers required.

There are many letters from satisfied users published in our Booklet 326F.

You should have a copy.



*The Cyclone Full  
Housed Blower  
for Induced  
Draught, Refuse  
Collection, Mine  
Ventilation, etc.*

**Matthews & Yates Ltd**  
SWINTON, MANCHESTER.

CI