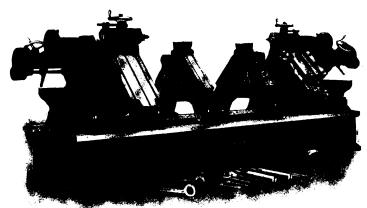
# BERTRAM QUARTERING MACHINE



With Outboard Support for Boring Spindle<sup>\$</sup> and Removable Rest for Turning Crank Pins.

This 90" Quartering Machine is designed for quartering and boring crank pin holes in locomotive driving wheels having right hand lead and wheels having left hand lead up to 85" in diameter on the tread. The boring spindles have 15" travel and two changes of power and rapid hand movement. The saddles are graduated and have angular adjustment for any length of stroke from 12" to 36". The axles are held on their centres and supported by adjustable V bearings, the wheels being clamped to the side of the frame. Each head is arranged to be driven by a 5 H.P. electric motor.

The JOHN BERTRAM & SONS CO., Limited

Dundas, Ontario, Canada

# JAS. W. PYKE & COMPANY

CANADIAN REPRESENTATIVES

### FRIED. KRUPP, ESSEN, GERMANY.

Steel Rails.
Wrought Iron Steel-Tyred Disc Wheels
Locomotive and Car Wheel Tyres.
Axles, Crank Pins, Forgings, Etc.

FOR STEAM AND ELECTRIC RAILWAYS.

OFFICE: MERCHANTS BANK BUILDING MONTREAL.
205 ST. JAMES STREET,



#### STEEL BACK CAR BRAKE SHOE

Can be applied to any type of shoe.

The Steel Back doubles the life of the shoe.



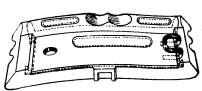
Steel Back Brake Shoe

ONLY SAFE SHOE FOR HIGH SPEED BRAKES

More dense and durable than common Cast Iron

## Perfecto Driver Brake Shoe

THE BEST SHOE FOR GENERAL LOCOMOTIVE SERVICE



Back View

PERFECTO DRIVER BRAKE SHOE



Contact Surface

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MISCELLANEOUS TRON AND STEEL CASTINGS