

## BRILL HALF-BALL BRAKE HANGER

**T**HIS hanger has been a standard part of the brake apparatus on the Brill trucks for the past five years and in many cases has been furnished for other makes of trucks. It is noiseless, self-adjusting for wear and self-cleaning. The hangers are drop-forged and the half-ball ends are case-hardened. The half-ball ends of the hangers are held firmly in hemispherical sockets; a spiral spring on a bolt, which is in tension against the spring, being utilized for each pair of hanger ends. These comprise all of the parts of the complete hanger. The half-ball ends of the hanger forgings are milled and the hemispherical sockets of the malleable castings into which they fit are reamed. The spring and bolt at each end are arranged to permit lateral flexibility in addition to securing the parts together and providing spring tension.



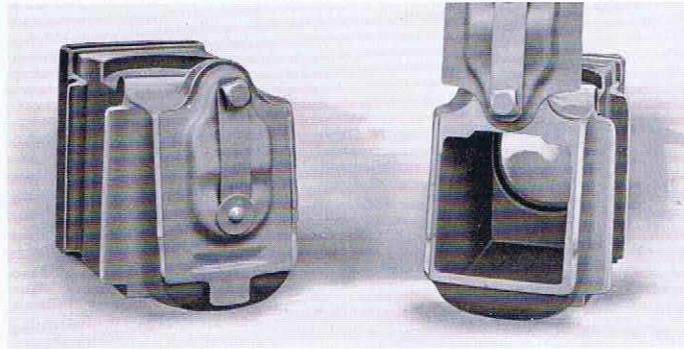
## THE BRILL OIL-RETAINING CENTER BEARING



**T**HE difference between the old-fashioned center bearing and the Brill Oil-Retaining Center Bearing is simply an allowance of space in the latter for an oil reservoir, and there is also a phosphor bronze ring to take the wear and a felt ring to exclude dust. But slight as these changes are, they make all the difference between a grease center bearing and one lubricated with oil. Grease is not a satisfactory

lubricant, as it does not work itself in between the wearing surfaces of the plates and, not being protected from dust, it becomes a dirty paste. The phosphor bronze ring in the Brill Center Bearing is constantly in a bath of oil and the oil is thoroughly protected from dust by a felt ring. Several years' experience has proved it to be satisfactory on every truck in service, and it is the general experience that one gill of oil will last for a year and a half.

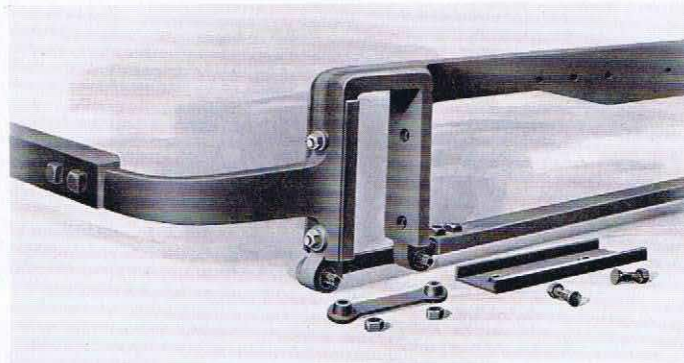
## BRILL STANDARD JOURNAL BOX



**W**HEN used with truck No. 27-M. C. B. the top of the box is made with pockets in which the ends of the equalizers rest; otherwise it is the same as shown in the illustration.

This journal box is made of semi-steel, is accurately machined for lid and pedestal fit, has an oil well of equal height back and front, is dust proof and has an unbreakable tight-fitting pressed steel lid.

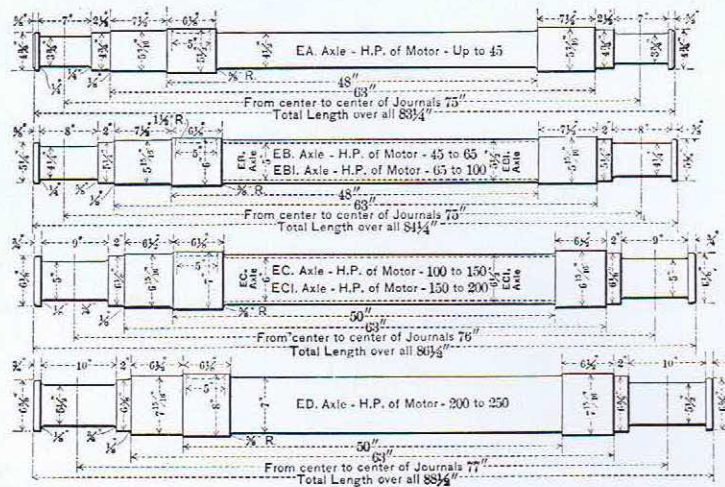
## SOLID FORGED SIDE FRAMES



**W**ITH the exception of the No. 50-E diamond-frame truck, all the trucks shown in this catalogue have solid forged side frames. The entire side frame with pedestals and end frame extensions is made of a single solid forging. This feature alone markedly distinguishes Brill trucks and has from the early days of electric traction placed them in the front rank. The section of metal enables the transoms to be secured by means of gusset plates bent over and heavily bolted to the wide surface; also corner brackets of large dimensions can be used to reinforce the connection on the inside. The low end frames and

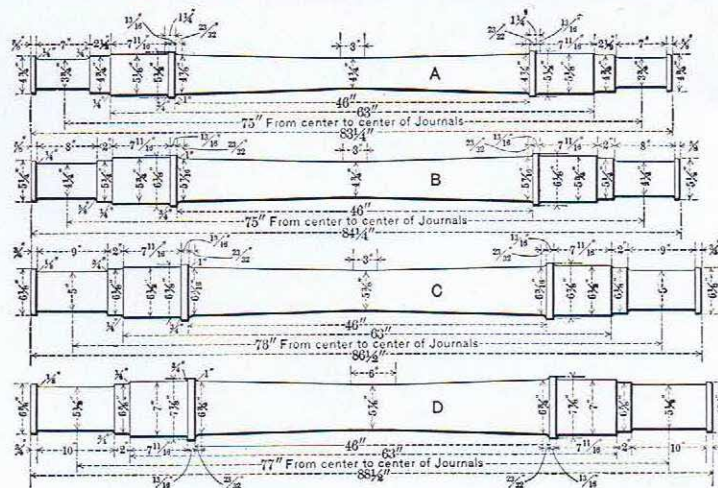
their powerful attachment to the side frame extensions are important advantages accompanying the use of solid forged side frames. The pedestal tie bar and pedestal cap construction and means of attachment are clearly shown in the engraving. The pedestals are counter-bored to receive the tapered bosses of the pedestal caps, or short tie bars. The bolts are given a loose fit, as there is no shear upon them, the strain being entirely upon the bosses. The bolts, being loose in the holes, cannot rust in and are therefore readily taken out when it is necessary to remove the journal boxes.

## A. E. R. A. STANDARD MOTOR AXLES



Type	EA	EB	EB 1	EC	EC 1	ED
Capacity of Axle	15,000	19,000	22,000	27,000	31,000	38,000
Length over All	6'11 1/4"	7'0 1/4"	7'0 1/4"	7'2 1/4"	7'2 1/4"	7'4 1/2"
Diameter of Journal	3 3/4"	4 1/4"	4 1/4"	5"	5"	5 1/2"
Length of Journal	7"	8"	8"	9"	9"	10"
Diameter of Wheel Fit	5 1/8"	5 1/4"	5 1/4"	6 1/4"	6 1/4"	7 1/4"
Diameter of Gear Fit	5 1/4"	6"	6"	7"	7"	8"
Diameter of Motor Bearing Fit	4 1/4"	5"	5 1/4"	6"	6 1/4"	7"
Center to Center of Journals	6'3"	6'3"	6'3"	6'4"	6'4"	6'5"
Distance between Hubs	48"	48"	48"	50"	50"	50"
Length of Gear Fit	6 1/2"	6 1/2"	6 1/2"	6 1/2"	6 1/2"	6 1/2"
Horsepower of Motor	45	45-65	65-100	100-150	150-200	200-250
Rough Turned Weight	445	540	590	759	827	1010
Finished Turned Weight	410	504	540	710	772	945

## M. C. B. STANDARD TRAILER AXLES



Type	A	B	C	D	E*
Capacity of Axle	15,000	22,000	31,000	38,000	50,000
Length over All	6'11 1/4"	7'0 3/4"	7'2 1/2"	7'4 1/2"	7'6 3/4"
Diameter of Journal	3 3/4"	4 1/4"	5"	5 1/2"	6"
Length of Journal	7"	8"	9"	10"	11"
Diameter of Wheel Fit	5 5/8"	5 3/4"	6 1/2"	7"	7 5/8"
Diameter of Center	4 1/4"	4 3/4"	5 3/8"	5 7/8"	6 7/8"
Diameter just Inside of Hub	5 1/2"	6 1/8"	6 7/8"	7 3/8"	8"
Center to Center of Journals	6'3"	6'3"	6'4"	6'5"	6'6"
Distance between Hubs	48 3/8"	48 5/8"	48 3/4"	48 5/8"	48 5/8"
Rough Turned Weight	425	535	700	830	1000
Finished Turned Weight	393	495	656	790	965

\* Recommended practice only