3 inches. The note covering this portion of the torque curve states that lever pin (11) should be in the bottom hole.

SOLENOID GAP SETTING

The solenoid gap is the total travel of the solenoid core (2). To check the travel, measure the clearance between core (2) and the solenoid frame with the solenoid energized; measure the same clearance with the solenoid de-energized. The difference between the two readings is the gap length. The table on pages 5 and 6 lists the normal gap lengths for the various brake sizes.

The current in a d-c solenoid with straight shunt or series winding is independent of the air gap or travel of the core. Consequently, the heating of the coil is not increased if the core fails to pull down and release the brake when the coil is energized.

THE CONDITION IS DIFFERENT WITH A-C SOLENOIDS, ALL OF WHICH ARE SHUNT WOUND. IN THIS CASE, THE CURRENT IN THE COIL DEPENDS ENTIRELY ON THE DISTANCE BETWEEN THE CORE AND THE FRAME, THE VALUE OF CURRENT BEING AT A MINIMUM WHEN THE GAP BETWEEN THE SOLENOID CORE AND FRAME IS ZERO OR THE BRAKE IS RELEASED. IN OPERATING AN A-C SOLENOID, IT IS THEREFORE NECESSARY TO SEE THAT THE MOVING CORE PULLS DOWN PROMPTLY, AS OTHERWISE THE CURRENT WILL BE EXCESSIVE AND WILL BURN OUT THE COIL.

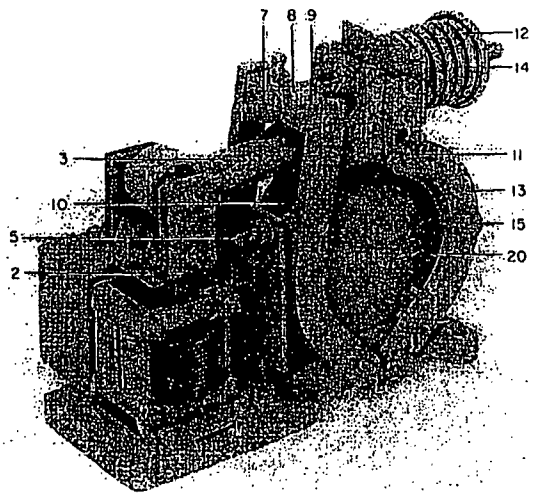

Fig. 6. Solenoid-operated brake, IC9516-460

ADJUSTMENT FOR LINING WEAR

For forms IC9516-160 and -161, (d-c); and -460, -461, -462 or -463 (a-c) brakes, see Fig. 1 and 6.

For forms IC9516-464 or -465 (a-c) brakes, see Fig. 5.

As the lining wears, the travel of the core (2) increases until either it fails to pull down and release the brake or until lever (3) strikes the underside of the cross piece (8) or a stop. It is then necessary to take up on nut (7) to bring the travel of the core (2) down to the minimum necessary to release the shoes. This also brings the tension of spring (12) back to its original value. Then adjust screws (5) to equalize the clearance between the wheel and two shoes. The braking intensity is adjusted at nut (14).

LUBRICATION

Oil should be put on the bearing pins occasionally to prevent wear.

ASSEMBLY AND DISASSEMBLY

WHEELS

The wheels are balanced and have a straight or taper bore.

When taper-bored wheels are used with tapered shaft, the nut on the end of the shaft should be locked so that the wheel cannot come off. Usually, there is a saw cut in the wheel hub, and the edge of the plate washer should be bent into this cut. Then, after the nut is set up tight, the washer is bent over against one side of the nut. Sometimes it is not possible to put a saw cut in the wheel hub, and in such cases a lip the width of the key can be made on the inside edge of the washer by two saw cuts. The lip should be bent into the end of the keyway.

Straight bored wheels should be put on with a light press fit.

REMOVING WHEELS

To remove *horizontally*, back off on nuts (7) and (14), Fig. 1, 2, and 6. Back off on nut (7) and screw down on nut (5), Fig. 5.

To remove *vertically* (Fig. 1, 2, and 6), remove pin (11), back off on nut (14), remove nut (7) and lift out the lever and parts. Then loosen shoe-bolt nuts (15) and raise wheel.

Back off nut (9), Fig. 5, turn rod (19) out of part (17) and throw the rod back. Loosen shoe bolts (15) and raise the wheel.

GLEASON-000130