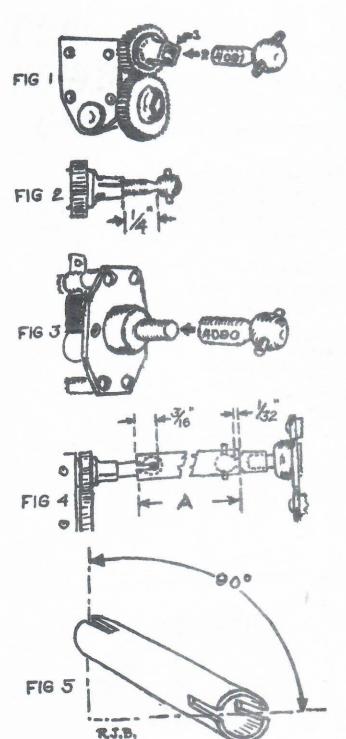
NEW

ALL-NATION BALL JOINT COUPLING

For Diesels and Steam Locomotives
Kit No. 4093



INSTRUCTIONS

Drill out square shaft (Arrow 1) of power truck with a 1/8" drill and solder ball joint No. 4091 (Arrow 2) into it as illustrated in Fig 1.

Make sure that there is a ¼" space between end of square shaft and ball as illustrated in Fig 2. This is important, so as not to interfere with the kingpin.

Solder ball joint with sleeve No. 4090 on to shaft of motor as illustrated in Fig 3.

Now put the motor in the frame. Place power truck in the sideframes and attach to the floor plate, so that we may take a measurement of the distance (A) in Fig. 4. Make sure that you measure about 1/32" passed the ball on both sides, as shown in Fig. 4. Now cut the tube to measured length with a fine saw and clean the burrs with a small round file. We now proceed with the filing of the slots. Clamp tube in a vise and take a flat file, 1/16" thick, using the edge for making a slot about 3/16" deep on both sides. Make sure the slots are 90 degrees from each other as in Fig. 5. Now slip tube on motor end and loosen power truck and slip the other end onto the ball. Attach power truck to floor plate and your unit is ready.

PARTS LIST

1	#4090	Ball joint with sleeve	@	\$.45
1	#4091	Ball joint with rod	@	.35
1	#4092	Fibre tube 3" piece	@	.15
1	#4093	Ball joint coupling kit	@	.90