A. O. Norton, Boston, Mass., U. S. A., and Coaticook, P. Q., Canada.

WHEN the Jack is assembled the sleeve slides down over the screw and standard, the bearing plate in the head resting on the balls on the plate op the gear, so that the whole weight is carried by the balls (between the steel plates,) which act as a thrust-bearing between the screw and head of sleeve, reducing the friction and increasing the lifting power of the Jack.

The sleeve which revolves on the standard, allowing the lever to be used from either side, carries the load, and is raised or lowered by the screw, which is turned by means of a gear on the ratchet shaft engaging with the gear on the screw, and operated by a reversible ratchet and lever having the up and down, or "pump-bandle" motion. This is the only screw Jack made having this motion of the lever. The sleeve at the lower end is provided with a "stop-dog" or pawl, which prevents the screw from being run out of the nut.

The advantage of this sliding sleeve cannot be over estimated. It takes all the side strain off the screw, preventing it from bending, and also protecting all the working parts from sand, coal-dirt and water, making it the only fack suitable to carry on locomotives.

All the Norton Railroad Jacks are steel and malleable iron proughout.

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