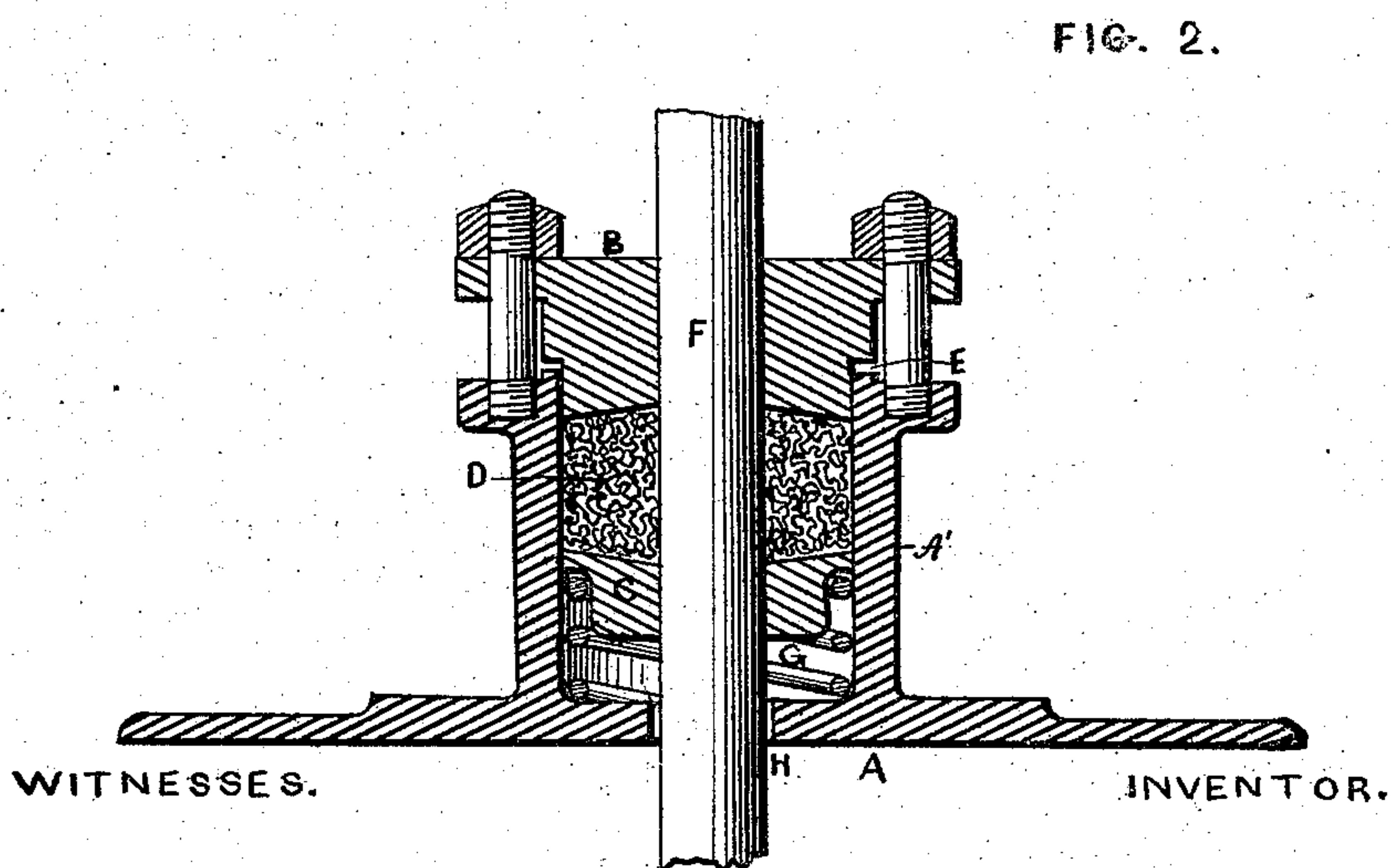
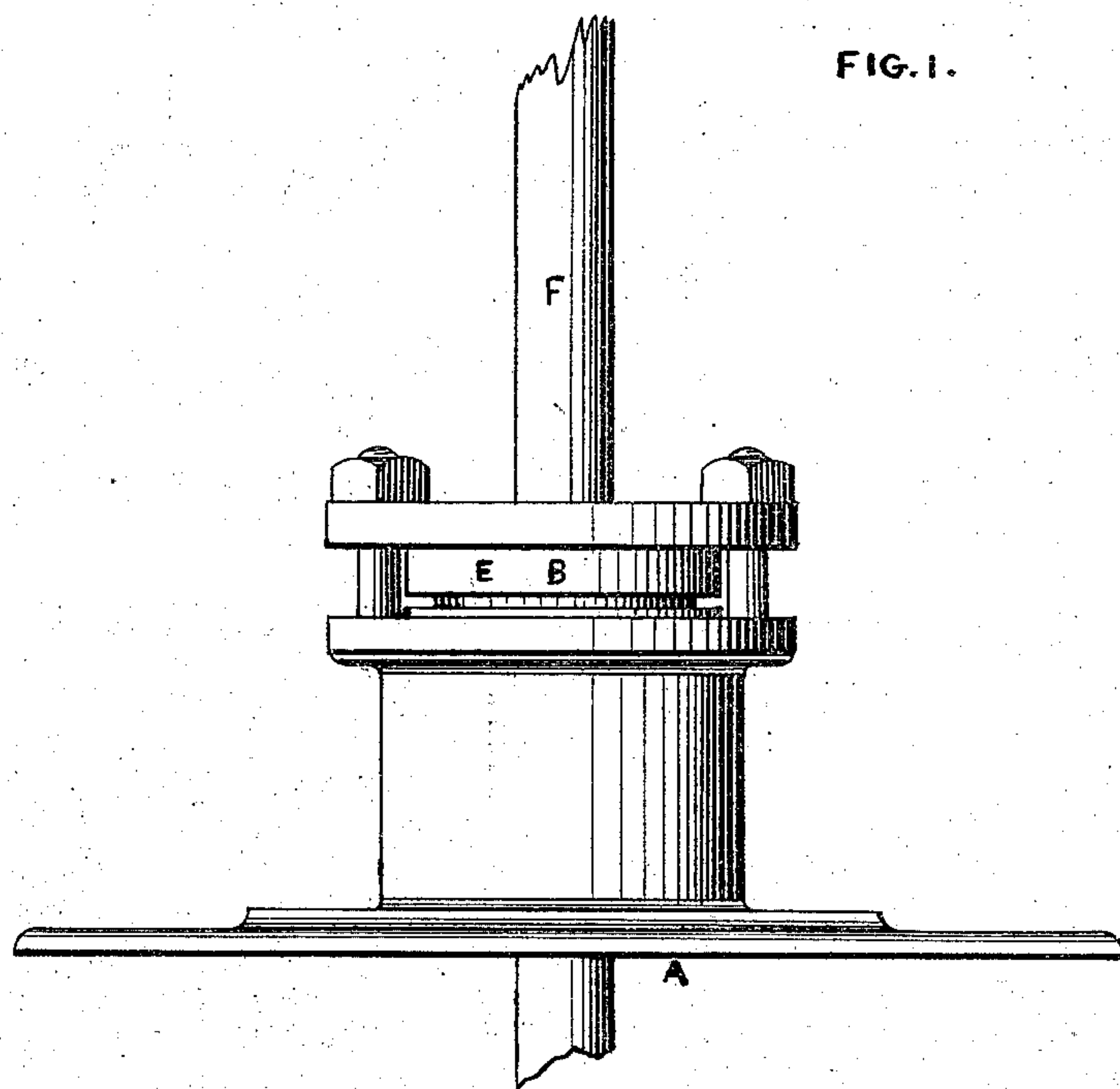


J. NOLAND & C. NEIDICH.

Packings for Piston-Rods.

No. 154,613.

Patented Sept. 1, 1874.



WITNESSES.

INVENTOR.

Robert Paterson
Patrick Mack.

John Noland
Chas. Neidich

UNITED STATES PATENT OFFICE

JOHN NOLAND AND CHARLES NEIDICH, OF OIL CITY, PENNSYLVANIA.

IMPROVEMENT IN PACKINGS FOR PISTON-RODS.

Specification forming part of Letters Patent No. **154,613**, dated September 1, 1874; application filed July 14, 1874.

To all whom it may concern :

Be it known that we, JOHN NOLAND and CHARLES NEIDICH, of the city of Oil City, in the county of Venango, in the State of Pennsylvania, have invented a new and Improved Packing for Piston-Rods; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference thereon marked.

Figure 1 represents a perspective view. Fig. 2 represents a transverse section.

Letter A represents an ordinary cylinder-head and stuffing-box for piston-rods. Letter B represents the gland entering the stuffing-box, and having a steam-joint at E. Letter C represents a movable disk, which is pressed against hemp or other compressible material in cavity D, by means of steam in combination with spiral spring G, for the purpose of preventing the escape of steam or water between B and F. Letter D represents some compressible material, such as hemp. Letter E

represents a steam-joint between A and B, already described. Letter F represents a piston-rod. Letter G represents a spiral spring, which is intended to support the disk C while there is no pressure of steam or water through opening H, as, for example, during one-half the travel of the piston on steam-engines. Letter H represents the opening where the steam enters the box.

What we claim as our invention, and desire to secure by Letters Patent, is—

The solid or sliding disk C, held in place by a spiral spring, G, in cylindrical box A, in combination with the fibrous packing and the stationary gland B, so that the action of the steam from the cylinder may compress the fibrous material to the piston-rod, substantially as described.

JOHN NOLAND.
CHARLES NEIDICH.

Witnesses :

ROBERT PATERSON,
PATRICK MACK.