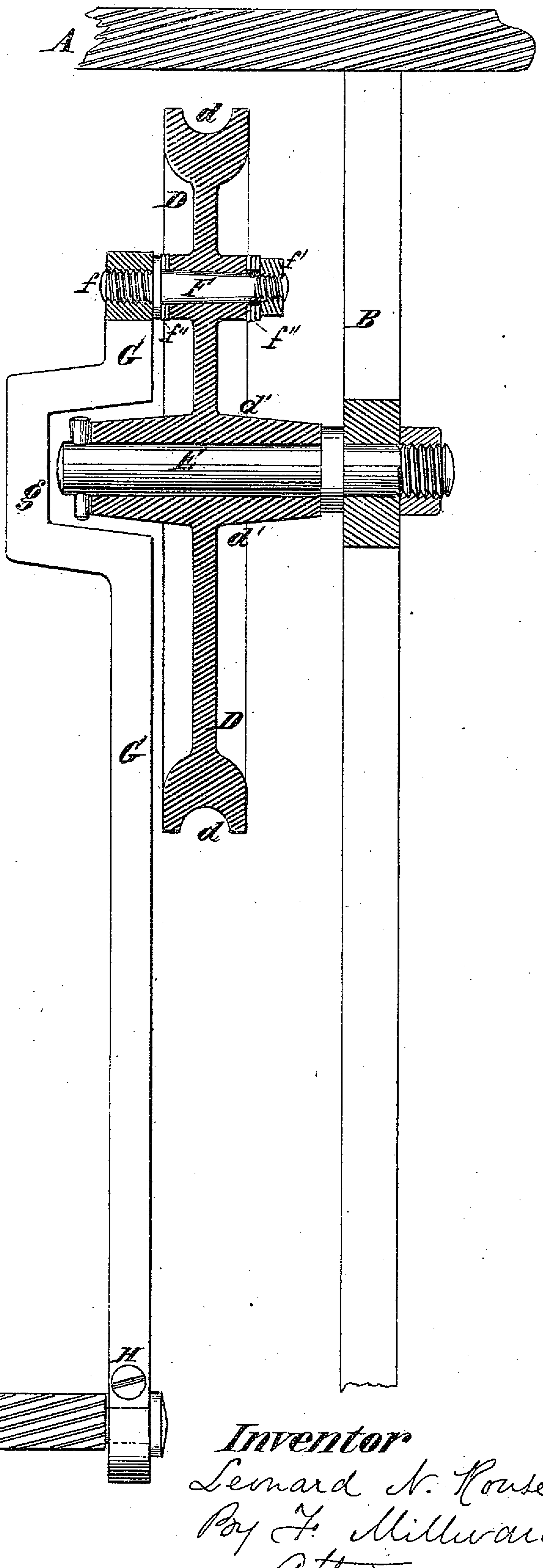
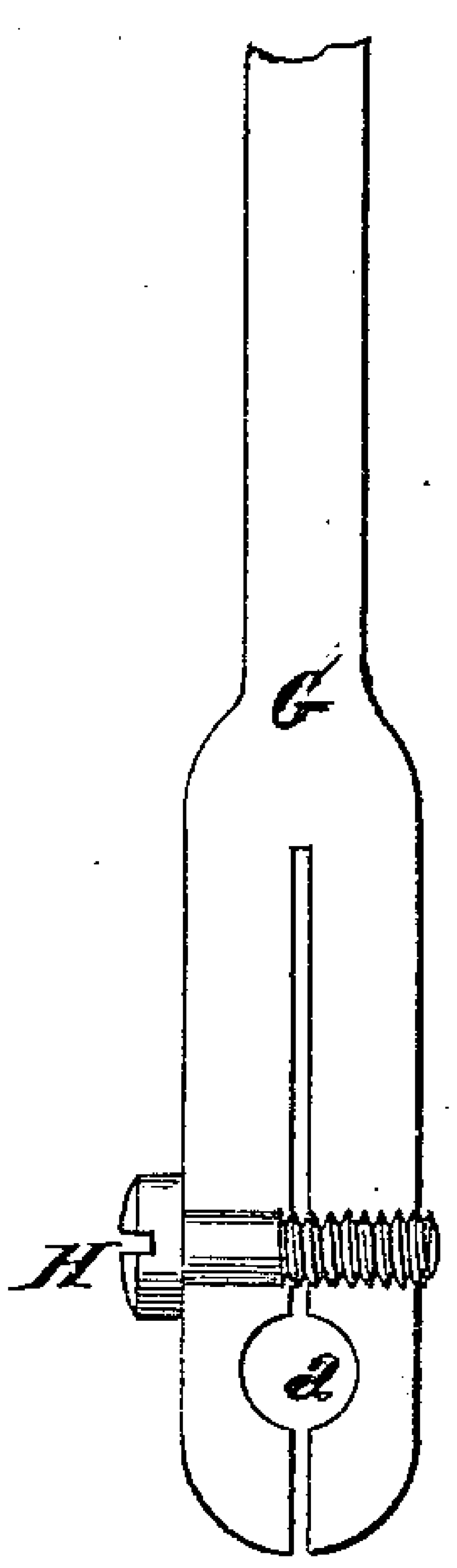
L. N. ROUSE.

Improvement in Pitman and mode of Attachment to Band Wheels.

No. 123,363.

Patented Feb. 6, 1872.





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123,363

UNITED STATES PATENT OFFICE.

LEONARD N. ROUSE, OF COVINGTON, KENTUCKY.

IMPROVEMENT IN PITMEN AND MODE OF ATTACHMENT TO BAND-WHEELS.

Specification forming part of Letters Patent No. 123,363, dated February 6, 1872.

I, LEONARD N. ROUSE, of Covington, Kenton county, State of Kentucky, have invented a certain new and useful Improvement in Pitmen and Band-Wheel for Sewing-Machines, of which the following is a specification:

Nature and Objects of the Invention.

My invention consists, first, in connection with band-wheel, constructed to rotate upon a fixed stud or spindle, of a pitman so peculiarly formed that, although its wrist on the band-wheel is connected at a point where the strain upon it is almost directly over the center of the wheel-bearing, it is made to clear the hub of the wheel in motion; the object being to avoid the canting strain incident heretofore to band-wheels revolving upon fixed studs; second, in a certain peculiar device by which the wear of the pitman-wrist in the band-wheel can be taken up at any time; third, in a peculiar construction of the lower end of the pitman, by which the wear in its connection with the treadle can be taken up readily with the greatest precision.

Description of the Accompanying Drawing.

Figure 1 is an elevation, partly in section, of a sewing-machine frame, band-wheel, treadle, and pitman embodying my invention. Fig. 2 is a detached view of the lower end of the pitman.

General Description.

A represents the table of a sewing-machine; B, the side of the frame; and C, the treadle. The band-wheel D is of the customary form, except in its connection with the pitman. It is journaled upon the fixed stud E, which is secured to the frame B in the ordinary way.

By long experience in the manufacture and use of sewing-machines I have discovered that it is important that the band-wheel hub should have a long journal-bearing on the fixed stud E; that the groove *d* should be over the center of this bearing; and that the pitman should be connected at a point on the band-wheel near the center line of the bearing, in order to avoid unequal wear and shackling operation.

To accomplish this I construct the band-wheel D with a hub, *d'*, of considerable length, as shown, and so disposed that the groove *d* is midway between the ends of the hub. A short taper-journal is also provided in the arms of the band-wheel, into which the wrist F of the pitman G fits.

In order to connect the wrist of the pitman with this short journal in the arm of the band-wheel, and still provide for a direct connection with the treadle and a clearance for the long hub of the band-wheel, I form a gap, *g*, in the pitman G, the gap being of sufficient dimensions to allow of the passage of the pitman over or across the hub *d'* and end of stud E.

With this construction and connection of pitman and band-wheel the strain of the pitman is sustained by the band-wheel at a point nearly in the same plane as the center of the hub-bearing, and there is, therefore, no tendency on the part of the wheel to cant on the bearing or shackle in motion.

The wrist F is formed with a collar, *f'''*, which, in connection with the screw *f*, serves to secure it to the pitman G, and is tapering in form in the portion that fits the band-wheel. A nut, *f'*, is fitted to the wrist, as shown, and also a number of washers, *f''*. The provision of the washers admits of the wear of this wrist being taken up at any time by simply changing their location; as, for instance, when the wrist has worn itself loose, if one of the washers is removed from the collar side, and placed on the side of the nut *f'*, the wrist will be forced further into the taper-journal, and thus made to fit.

The lower end of the pitman is split, as shown, across its journal-bearing *a*, and fitted with an adjusting-screw, H, so that this journal may be reduced in size when worn, and made to fit the journal-stud on the treadle.

Claims.

1. In the described combination with the band-wheel D, constructed with a long hub, *d'*, (projecting from the line of groove *d* on each side,) to revolve loosely upon the fixed stud E, I claim the gap-pitman G *g*, connected and operating substantially as and for the purpose described.

2. In connection with the taper wrist-bearing in the band-wheel, the taper-wrist F, when constructed with collar *f'''*, and fitted with nut *f'* and washers *f''*, as and for the purpose described.

3. The pitman G, when formed with a split end across the journal-bearing *a*, and fitted with an adjusting-screw, H, as and for the purpose specified.

In testimony of which invention I hereunto set my hand.

LEONARD N. ROUSE.

Witnesses:
FRANK MILLWARD,
J. L. WARTMANN.