(No Model.)

J. W. POST.

SEWING MACHINE.

No. 378,804. Patented Feb. 28, 1888.

Fig. 1

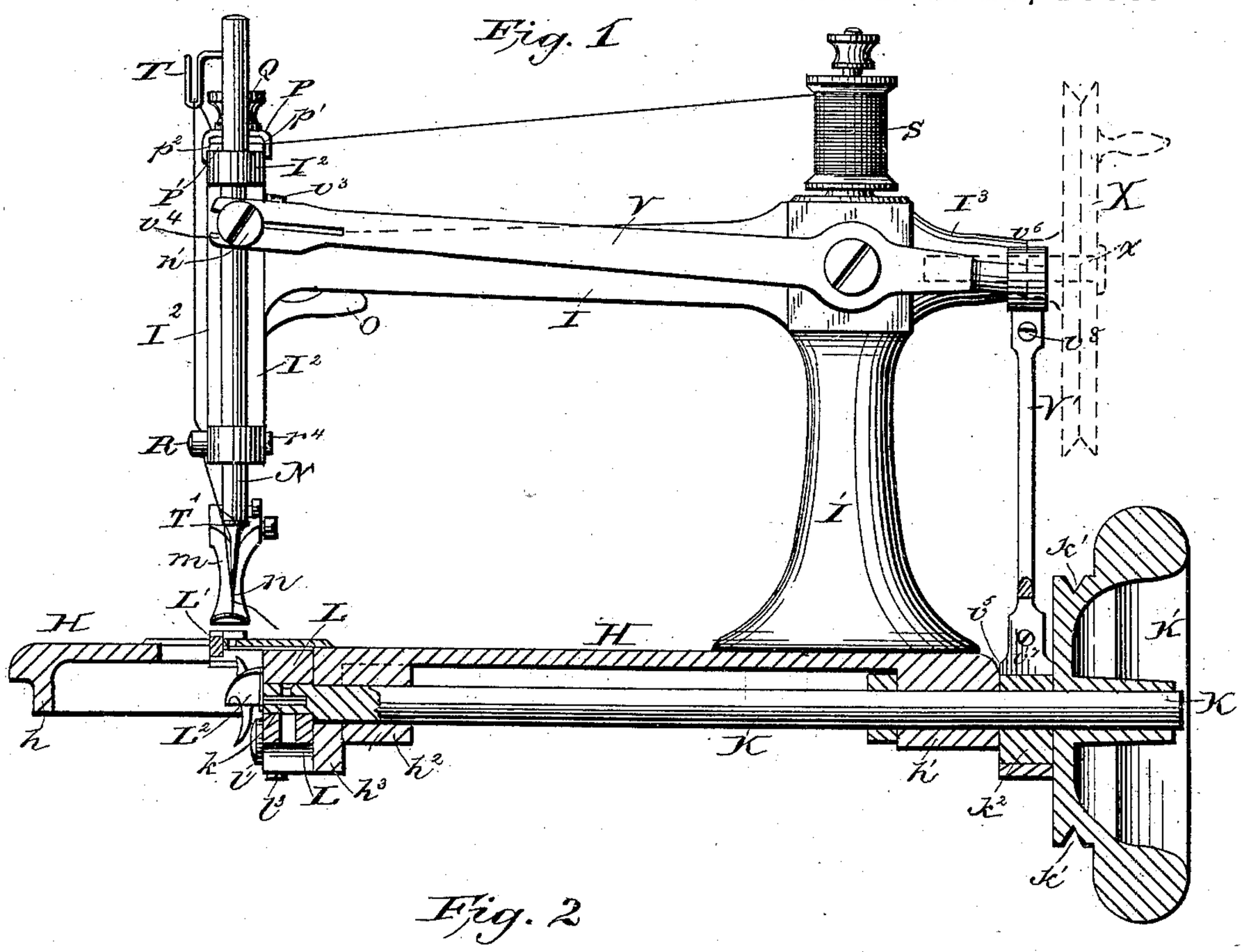


Fig. 2

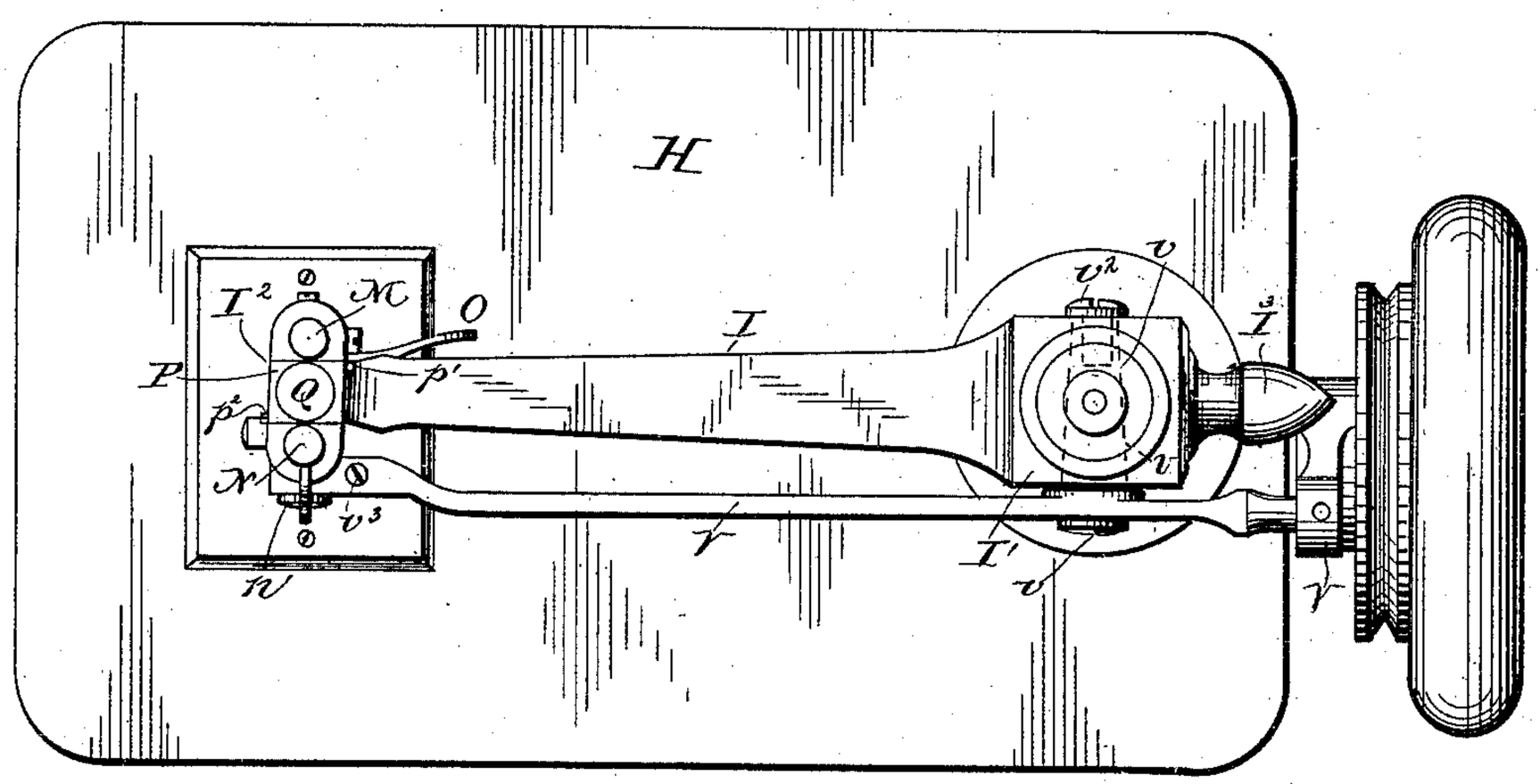
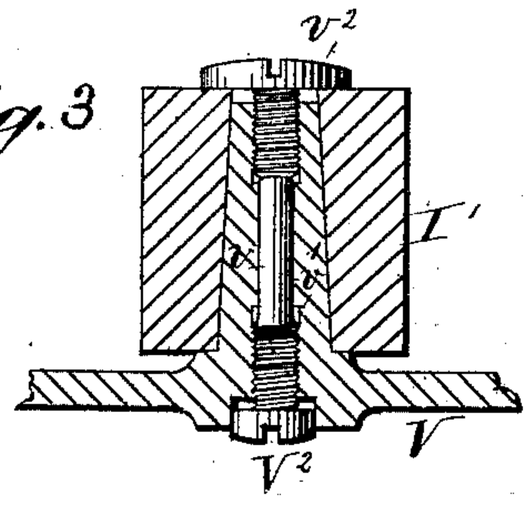


Fig. 3



Attest:
Geo. H. Cook.
Jno. P. Boudeman.

Inventor:
John W. Post.

UNITED STATES PATENT OFFICE.

JOHN W. POST, OF NEW YORK, N. Y., ASSIGNOR TO THE MODEL SEWING MACHINE COMPANY.

SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 378,804, dated February 28, 1888.

Application filed October 26, 1885. Serial No. 180,993. (No model.) Patented in England November 21, 1885, No. 14,277.

To all whom it may concern:

Be it known that I, JOHN W. POST, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Sewing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention.

This invention relates to improvements in sewing-machines, and has for its object to improve their construction, more particularly the construction of the needle-operating lever with its bearing on the overhanging arm of the machine.

In the accompanying drawings, Figure 1 is a view of a machine constructed in accordance with my invention, showing in section a portion of a bed-plate of a sewing-machine, the overhanging arm and needle-operating lever in elevation. Fig. 2 is a top plan view of the same. Fig. 3 is a sectional view showing the manner of connecting the needle-operating lever to the overhanging arm.

Similar letters of reference in the several figures indicate the same parts.

H represents the bed-plate of the machine, upon which is formed or secured the standard I′, supporting the overhanging arm I, to the forward end of which is secured a head, I^2. On the under side of the bed-plate are formed small brackets or lugs $h\,h'\,h^2$, forming the bearings for the driving-shaft K, on the end of which is a fly-wheel, K′, having a groove, h', in its inner side for the application of the driving-belt in the ordinary manner. Inside the pulley K′, upon the shaft, is formed an eccentric, k^2, from which the needle-operating lever V is operated by means of a pitman, V′, the lower end of which is provided with a strap-connection, v^5, embracing said cam, while the upper end is provided with a similar strap-connection, v^6, tightened by a screw, v^8.

To simplify and cheapen the construction of the machine, I prefer to form the fly-wheel K′, the belt-pulley k', and eccentric k^2 in one piece with the driving-shaft K. At the forward end of the driving-shaft K is formed an eccentric boss, k, for operating the feed-bar L, carrying the feed-dog L′, of the ordinary construction. The eccentric boss k works in a slot in the feed-bar in a well-known manner, and causes the same to be reciprocated. To the forward end of the shaft K is secured the means for forming the stitch in the ordinary or any preferred manner.

In the head I′ of the overhanging arm I are formed vertical bearings for the needle-bar N (that carries the usual eye-pointed needle) and the presser-bar M, carrying a presser-foot of the ordinary or any suitable construction, said presser-foot being held upon the work by a spring (not shown) encircling the presser-bar, and may be lifted from the work, when desired, by means of an eccentric lifting-lever, O.

The needle-bar N is, as stated, reciprocated in vertical bearings in the head I^2 by means of the operating-lever V, pivoted upon the standard, said pivotal connection being formed in a manner to be described. The end of the bar is split and embraces a projection on the needle-bar, the connection being tightened, when desired, by means of a screw, v^3, passing through the split end, as shown, and the rear end of the lever is provided with a projection encircled by a collar or strap-connection, v^6, tightened by a screw, v^8, as will be readily understood.

The oscillating lever V has a tapering or conical pivot, v, formed integral therewith, that is seated in a correspondingly-formed recess in the standard I′. The pin v is slightly shorter than its bearing or seat, and an adjusting-screw, v^2, is fitted in its tapering end, the head of which bears on the rear side of the arm I, as in Fig. 3, so that it will hold the pin tightly in place; and should the parts become worn and work loose, it is only necessary to tighten up the screw v^2, thereby forcing the tapering or conical pivot v farther into its seat or bearing, as will be readily understood.

The described construction is a very convenient one for taking up the wear of the parts referred to; but if the screw v^2 should wear or not accurately fit the socket in end of pin v it would work loose under the influence of the movement of the pivot-bearing and the friction and the head of the screw on the arm I′. To obviate this, I form an axial perforation, v', in the pin v, for the reception of the locking or set screw v^2, and when the set-screw v^2 is adjusted this locking-screw is tightened

and made to bear against the inner end thereof, so as to hold it against accidental rotation.

The described arrangement of locking device for the screw v^2 not only performs its function in admirable manner, but is advantageous in giving the device a finished appearance, and, further, in that it can be manipulated very readily without the use of wrenches.

When desired to remove the lever V, it is only necessary to loosen screw V^2 and remove v^2.

It will be noted that the screw V^2 has a long smooth portion not screw-threaded, and that its threaded portion is only near its outer end, and this is for the purpose of obviating the necessity of threading the perforation its whole length and for providing a smooth bearing.

Having thus described my invention, what I claim is—

1. In a sewing-machine, the combination, with the overhanging arm having the conical socket, of the needle-operating lever having the bearing pin or stud thereon provided with the longitudinal perforation, the screw operating to hold the stud in its bearing and to be adjusted to take up wear, and the screw operating through the perforation in the stud to lock the first-mentioned screw in adjusted position, substantially as described.

2. In a sewing-machine, the combination, with the overhanging arm having the conical socket, of the needle-operating lever having the tapered bearing-pin provided with the longitudinal perforation, the screw operating to hold said stud or bearing pin in position, and the locking-screw having the long smooth portion and the threads near its outer end, adapted to bear against the first-mentioned screw and hold it in position, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN W. POST.

Witnesses:

GEO. W. COOK,

JNO. H. BOARDMAN.