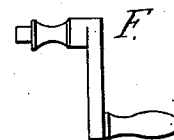
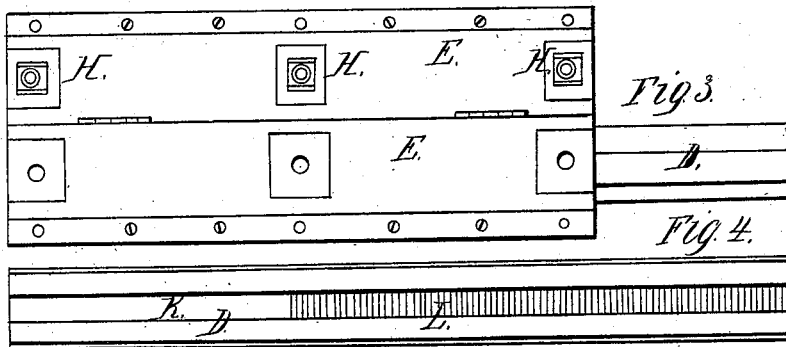
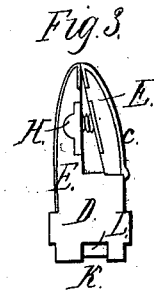
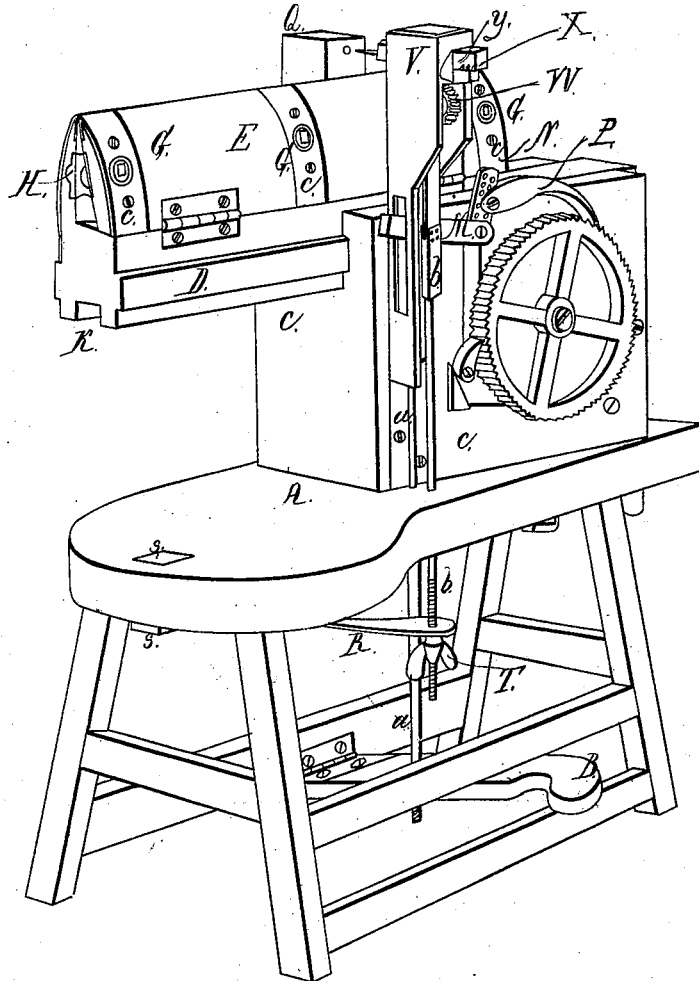


S. Sheldon
Harness Tool,
Nº 1818. Patented Oct. 10, 1840.



UNITED STATES PATENT OFFICE.

SAMUEL SHELDON, OF CINCINNATI, OHIO.

MACHINE FOR PRICKING LEATHER PREPARATORY TO STITCHING.

Specification of Letters Patent No. 1,818, dated October 10, 1840; Antedated September 21, 1840.

To all whom it may concern:

Be it known that I, SAMUEL SHELDON, of Cincinnati, in the State of Ohio, have invented a new and useful improvement in the manner of constructing the machine for pricking leather preparatory to stitching it for harness, the same being a further improvement on the machine originally patented by J. W. Briggs, Luther C. Corner, and Joseph S. Corner, for improvements upon which I obtained Letters Patent of the United States, dated on the 3d day of August, 1839; and I do hereby declare that the following is a full and exact description of my new improvement.

The general construction of my machine is the same with that above alluded to, and it is represented, with my new improvements, in the drawings hereunto annexed, in which Figure 1, is a perspective representation thereof, the other figures showing certain parts in detail, to be presently described.

A, is the seat, forming a part of the bench of the machine, and B, the treadle by which the pricking awl is to be forced in through the leather.

C, is the standard which sustains the clamp E, and serves as its guide, by receiving the guide strips of the carriage D, into grooves prepared for that purpose.

To the treadle B, a rod of iron, *a, a*, is attached, and to the upper end of this rod is fastened one end of the leather strap U, which strap I now make but five inches long, it having been found that the long strap attached to the treadle under my former arrangement, was subject to stretch whenever the article to be pierced by the awl offered any unusual resistance, and that its action, therefore, was unequal, a defect which my present arrangement removes entirely. This strap passes over a roller, or cylindrical shaft, within the head, or awl shaft guide, V, as in my former machine. The outer end of the strap U, is fastened to the iron rod *b, b*, which rod passes through a spring R, fastened at S, to the bench; T, is a thumb screw working on the lower end of the rod *b, b*, and regulating the action of the strap. The leather strap U, is made fast by pins, or screws, to the roller, or shaft, within the head V, and, of course, causes it to revolve in a degree proportioned to the descent of the treadle; upon this shaft is affixed a pinion, or wheel W, the teeth of

which take into a rack X, formed on the lower side of the awl shaft Y; and as, in the actual machine, the shaft, or roller, over which the strap passes is only seven eighths of an inch in diameter, and the pinion two inches and an eighth, the motion of the awl is accelerated in proportion, and it is rapidly removed out of the way, offering considerable advantage in the operation of the machine.

Q, is the head, or brace, which sustains the article to be pricked, against the action of the awl.

P, is the fall by which the ratchet wheel I, is made to advance at each motion of the treadle, and consequently to cause the clamp to slide the required distance, by means of a rack and pinion operating as in my former machine. The arm M, for moving the pawl is also operated as in my former machine, and the knee N, which rises from, and makes a part of, it, is furnished with a number of holes, allowing of the shifting of the pawl so as to obtain any required movement of the clamp.

The manner of closing the clamp described by me in my patent of August 3rd 1839, I have found to be liable to objections from the stretching of leather straps which I then used, and I now fasten the clamp by means of screws and nuts, so arranged as that the heads of the screws shall not rise above the surface of the clamp. Fig. 2, is the clamp opened out; Fig. 3, is a cross section of it, closed; Fig. 4, is a under side showing the rack L, let into the groove K. The heads of the screws which fasten the clamp are shown at G, G; these swivel within the metal plates *c, c, c*, and their tapped ends enter nuts within the screw boxes H, which nuts turn on joint pins within the boxes, so as to accommodate themselves to the opening of the clamp without cramping. F, is a winch, or crank, for turning the screws.

Having thus fully described the nature of my improvement in the machine for pricking leather preparatory to stitching the same, what I claim as new therein, and desire to secure by Letters Patent, is—

1. The manner in which I have combined and arranged the apparatus for moving the awl back and forth, as herein described, said combination consisting of the strap shaft with the strap attached thereto, and the pinion thereon, taking into the rack on the

awl-shaft; the metal rods *a*, and *b*, and the
spring R, substituted for the leather strap
and the spring in my former patent; the
respective parts being arranged, and coö-
5 perating, substantially in the manner, and
for the purpose, herein fully set forth.

2. I claim the manner in which I have

combined the screws, and swivel nuts with
the clamp for holding the strap, as herein
described.

SAMUEL SHELDON.

Witnesses:

THOS. P. JONES,

W. THOMPSON.