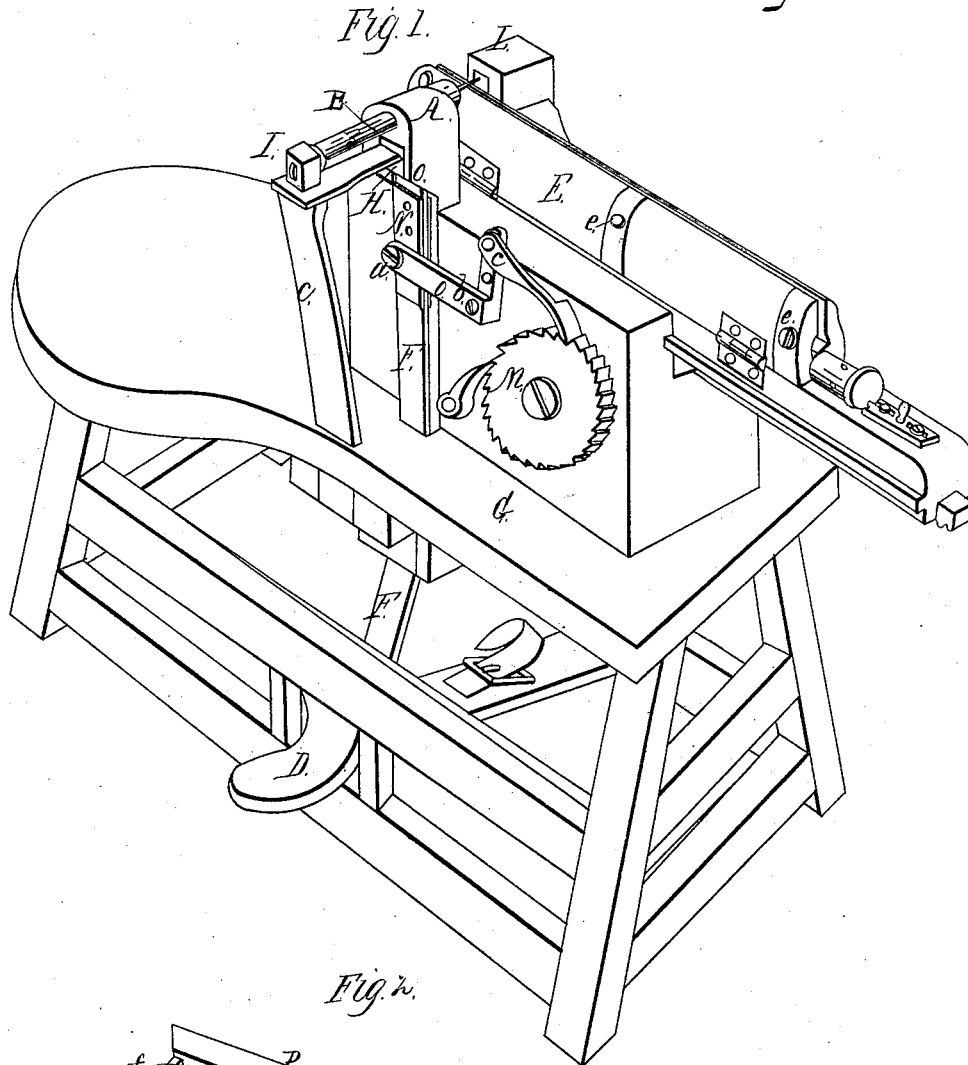


S. Sheldon,
Harness Tool,
No 1277. Patented Aug. 3, 1839.



UNITED STATES PATENT OFFICE.

SAMUEL SHELDON, OF CINCINNATI, OHIO.

IMPROVEMENT IN THE MACHINE OF BRIGGS AND CARNER FOR STITCHING LEATHER.

Specification of Letters Patent No. 1,277, dated August 3, 1839.

To all whom it may concern:

Be it known that I, SAMUEL SHELDON, of the city of Cincinnati, in the State of Ohio, have made certain Improvements in the Machine for Pricking Leather Preparatory to Stitching It for Harness, Thorough Braces, &c., for which machine Letters Patent of the United States were granted to Joseph W. Briggs, Luther C. Carner, and John S. Carner on the 26th day of March, 1838; and I do hereby declare that the following is a full and exact description of my said improvements.

The improvements which I have made consist, first, in the manner of arranging the strap used by me for forcing the awl forward, and moving the ratchet wheel by which the sliding clamp of the machine is caused to advance; and secondly, in the manner of closing the jaws of the clamp, and causing them to hold the strap, or brace, which is to be pricked and stitched.

Figure 1, in the accompanying drawing, is a perspective view of the whole machine, and Fig. 2, the interior of the sliding clamp, showing the arrangement by which the jaws of the clamp are drawn, and held together.

In Fig. 1 A is the piston head through which the cylindrical shaft B slides, which shaft carries the awl for pricking the leather. C is the spring by which the awl is drawn back; these parts being similar to those used in the original machine. D is the treadle to which the foot is to be applied for the purpose of forcing the awl forward, and of causing the sliding clamp E, to advance; and these ends I effect by means of a single strap F, in the following manner. The strap F, is attached to the treadle at one end, and is furnished with a buckle by which it can be lengthened, or shortened, when necessary. This strap passes up through an opening in the bench G, extends up to the roller H, behind, and over, which it passes, and embraces the head I, of the spring C, by which the awl is retracted. On forcing the treadle down, it will be seen that the spring will be drawn inward by the strap, and the awl, consequently, forced into the leather, which is sustained against the head L.

In order to cause the strap F, to act upon the ratchet wheel M, I affix a plate of metal N, on said strap, to carry the knee joint O, which is connected to the plate N by a joint pin at a, has its fulcrum at b, and carries

the pawl c, which acts on the ratchet wheel M, and turns it as the treadle is depressed. The distance to which it will turn the ratchet wheel will be determined by the part of the treadle to which the strap is attached, there being provision made for shifting it as may be necessary.

In the original machine, the strap by which the awl is drawn forward passes over a roller at the outside of the head L, and thence above the awl and its sliding shaft to the head I, of the spring, producing much inconvenience to the workman, and not infrequently, interfering with the passing of the article to be stitched. The ratchet wheel M, also, is acted on by a rod extending from the treadle for that particular purpose, rendering the apparatus more complex than under my arrangement.

In the original machine, the jaws for holding the leather were furnished with thumb screws for that purpose, which thumb screws are troublesome to the workmen from their frequently interfering with, and catching, the thread in the operation of stitching. I draw the sliding clamp together, and hold it, by means of the following device.

Fig. 2, represents the sliding clamp with the hinged side opened and turned down for the purpose of showing the arrangement of the closing apparatus; d d d are staples on the movable jaw, to which leather straps are to be attached; these staples may be held in place by means of screws e e e, Fig. 2, or affixed in other ways. f, f, f, are friction rollers attached to the fixed jaw P, P; g, g, is a revolving shaft which passes along the lower part of the interior of the clamp, turning in bearings at its ends. This shaft has mortises h, h, h, through it to receive the other end of the straps spoken of as fastened by one of their ends to the staples d, d, d; from these staples, the straps pass over, and back of, the rollers f, f, f, and enter the mortises h, h, h, on the shaft g, g, to which they are attached. It will be seen that under this arrangement, the jaws will be drawn together by the revolution of the shaft g, g. In the head, i, of this shaft, there are holes for the insertion of a wrench, by which to turn it, and in its circular, or wheel-like, cap, or end piece k, there are holes to receive the end of a bolt l, for the purpose of holding the jaws when closed; the cap k, may, if preferred, be converted

into a ratchet wheel, and furnished with a pawl, in lieu of the bolt and holes.

Having thus, fully described the nature of my improvements, and the manner in which the same is carried into operation, it is to be understood that what I claim as my invention, and desire to secure by Letters Patent, is

1. Connecting the strap F, with the spring C by passing it directly up to, and over, the roller H, thence directly to the head of said spring, without crossing over the top of the machine, as set forth; and

also the operating of the ratchet wheel M, by means of said strap, directly through the intervention of the knee piece O, as described. 15

2. I likewise claim the manner described of closing the jaws of the sliding clamp by the action of the revolving shaft *g, g*, and the straps connected therewith, and with the rollers and staples in the sliding clamp. 20

SAMUEL SHELDON.

Witnesses:

THOS. P. JONES,
GEORGE WEST.