A. TUCKER.

Bolt Heading Machine.

No. 52,912.

Patented Feb. 27, 1866.

FIG. 1.

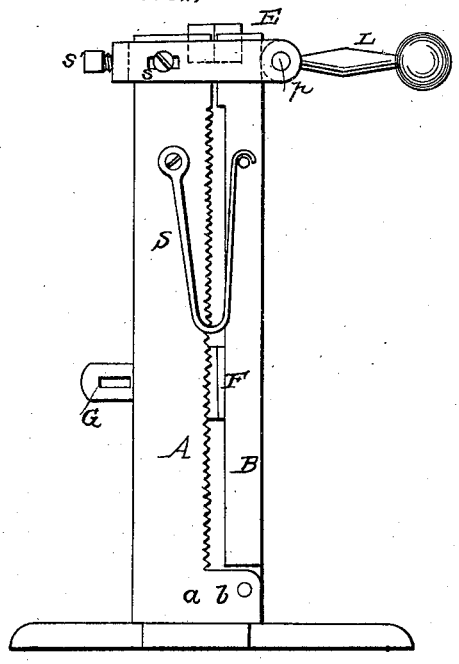


FIG. 2

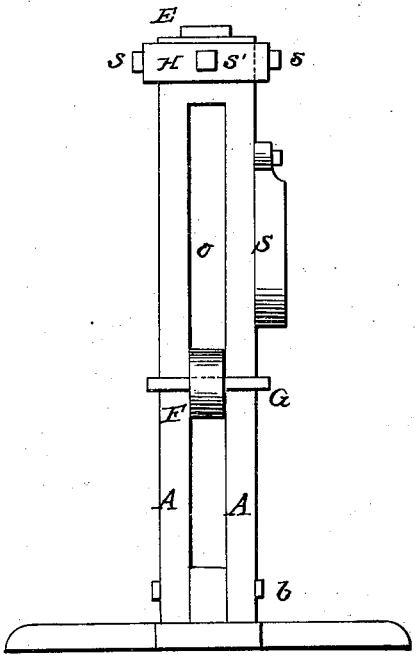


FIG. 3

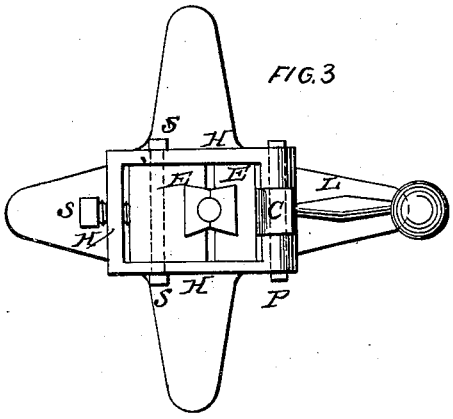


FIG. 4

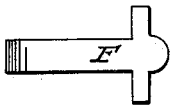
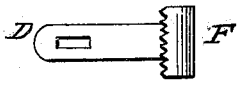


FIG. 5



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52,912

UNITED STATES PATENT OFFICE.

ALVAH TUCKER, OF GILFORD, NEW HAMPSHIRE.

IMPROVEMENT IN BOLT-HEADING MACHINES.

Specification forming part of Letters Patent No. **52,912**, dated February 27, 1866.

To all whom it may concern:

Be it known that I, ALVAH TUCKER, of Gilford, in the county of Belknap and State of New Hampshire, have invented a new and useful Improvement in Bolt-Heading Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, similar letters referring to like parts in all the drawings, whereof—

Figure I is a front elevation, Fig. II is a side elevation, and Fig. III is a plan, of said bolt-heading machine; and Figs. IV and V are, respectively, a side view and plan of the adjustable or sliding "foot," so called, in said machine.

The nature of my invention consists in constructing a machine for heading bolts by hand in such a manner as to secure the sliding foot which supports the rod or bolt during the operation of heading firmly in any desired position.

The continual hammering necessary to form the head of a bolt has a tendency to force down the foot which supports the rod or bolt, so that continual adjustment is necessary to produce bolts of uniform length in hand-machines in which the foot is set by a screw or other common device.

The nature of my invention consists, further, in arranging said adjustable foot or "hub," as it is sometimes called, in combination with other parts of a bolt-heading machine, so as to produce an efficient and durable apparatus for the manufacture of bolts, and for the miscellaneous uses to which such a machine is generally applied.

The construction and operation of my invention is as follows:

An upright standard, A, of cast-iron, supported by a base of sufficient strength and size, as represented in the drawings, is connected with the upright movable piece B, also of cast-iron, at the shoulder *a*. A slot or recess in the shoulder receives the end of the piece B, which is held in the slot by and turns upon the pin *b*.

The two pieces A and B constitute the jaws of the machine, which are opened by the pressure of the spring S, and closed by the cam C. This cam turns upon a pin, P, which is fixed at both ends in the band H, and is controlled by the weighted lever L. The band H is held in place by two screws passing through longitudinal slots in the band into the upright piece A, and any wearing of the cam C is compensated by the use of the set-screw *s'*.

Recesses are cut in the uprights A and B to receive the dies E E. The inner face of the upright A is serrated, all the teeth being carefully made uniform.

A slot, O, extends nearly from the top to the lower end of the upright A, to receive the shank of the sliding foot or hub and to allow it to be raised or lowered.

The foot or hub F is T-shaped, having the top, however, wider than the shank, as well as longer. The under face of this top is serrated to match the serrated face of A, and an aperture, D, is made in the shank to receive the taper-pin G.

The operation of the machine is briefly as follows: The sliding foot F being set by measurement or otherwise at the proper point, is there secured by driving in the taper-pin G. The rod upon which the head is to be formed is placed between the jaws and supported by the foot or hub F. The jaws are then brought together by turning the lever L, and the heated end of the rod is embraced by the dies E E, after which the head is formed by the hammer, as usual.

The utility of my invention consists, chiefly, first, in the construction of the sliding foot in such a manner that it can be readily adjusted to any desired length of bolt, and can there be held firmly in its place during the heading of any required number of uniform bolts; second, in the simplicity and cheapness of the construction of the foot and its immediate appurtenances, to wit, of the T-shaped foot, the taper-pin and slots, and the serrated faces; third, the simple, efficient, and durable combination of the various parts described to produce a convenient bolt-heading machine.

I do not claim as my invention the construction of a bolt-heading machine with uprights recessed to contain dies and controlled by a cam and lever, as such devices are in common use; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the standard A, pivoted jaw B, band H, cam C, and spring S.

2. The combination of the sliding foot or hub and tapering pin with the standard A and pivoted jaw B, all constructed substantially as described, when arranged and operating substantially as set forth.

ALVAH TUCKER.

Witnesses:

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JAMES B. TAYLOR.