

M. HINE.

Machines for Threading Bolts.

No. 143,154.

Patented September 23, 1873.

fig. 1.

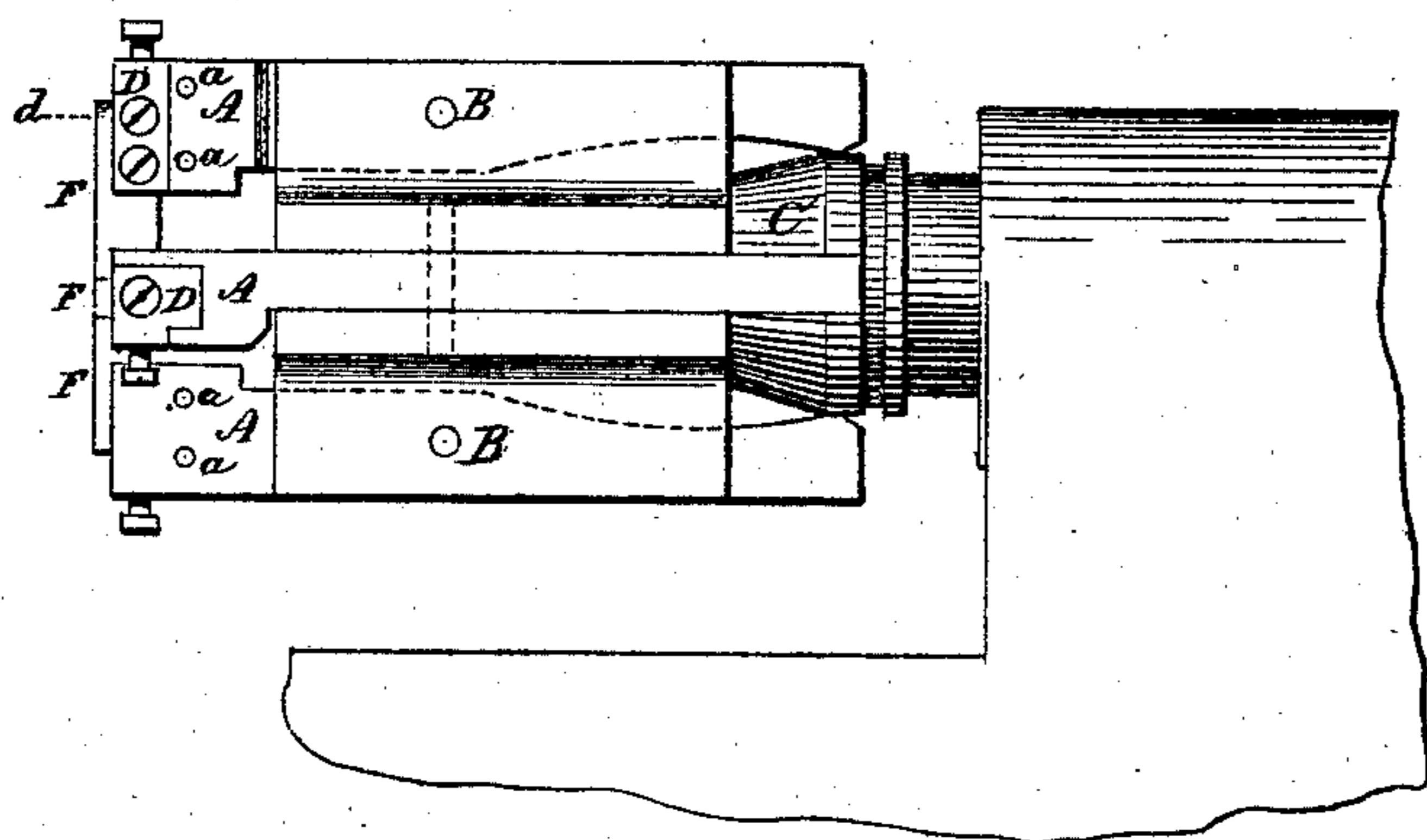


fig. 2.

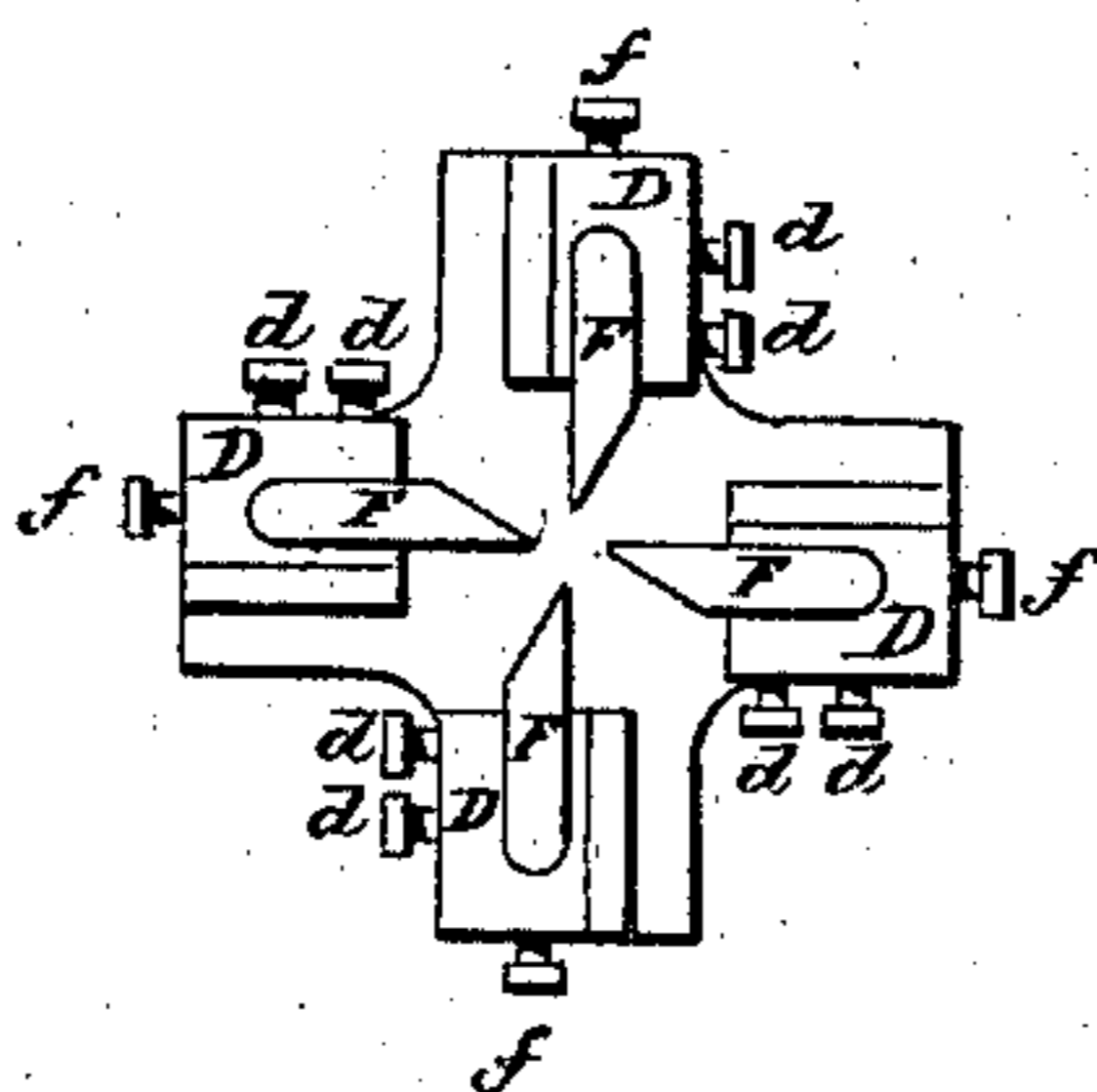


fig. 3.

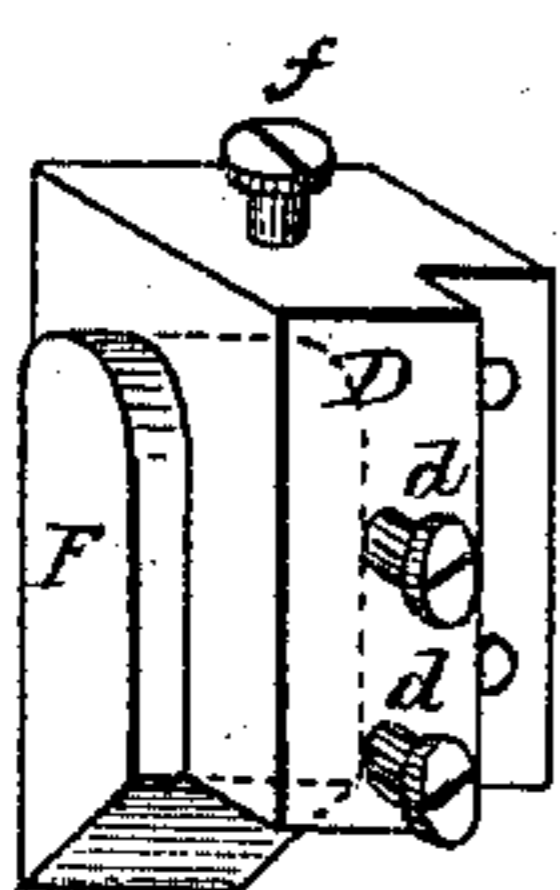
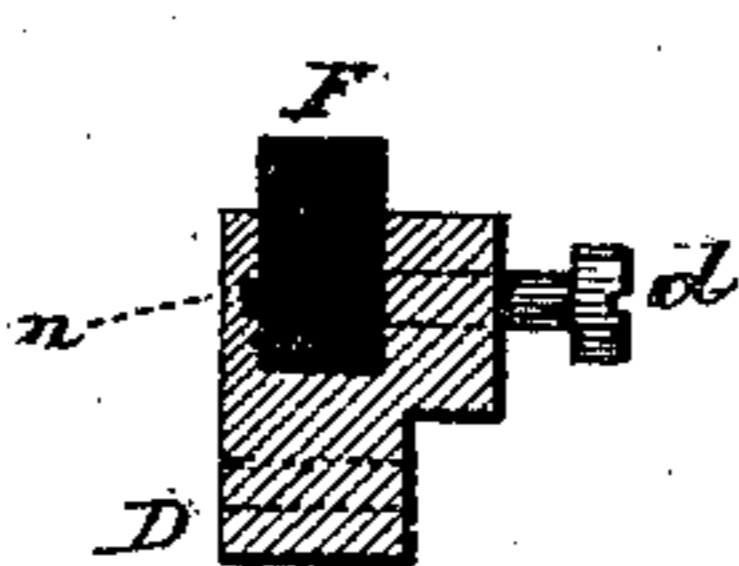


fig. 4.



Witnesses.

J. H. Shumway
A. J. Tibbitts

Merritt Hine
Inventor

By Atty.
J. S. Earl

UNITED STATES PATENT OFFICE.

MERRITT HINE, OF NEW HAVEN, CONNECTICUT.

IMPROVEMENT IN MACHINES FOR THREADING BOLTS.

Specification forming part of Letters Patent No. **143,154**, dated September 23, 1873; application filed July 9, 1873.

To all whom it may concern:

Be it known that I, MERRITT HINE, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Machine for Threading Bolts; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view; Fig. 2, an end view; and in Figs. 3 and 4, detached views.

This invention relates to an improvement in machines for threading bolts, particularly to that class which have the thread-cutting die arranged in the end of a lever hung in a revolving head, and the dies closed by means of a conical sleeve on the mandrel operating under the rear arm of the lever, such substantially as shown in a patent granted to me dated March 29, 1870.

It has been the usual practice to form a seat in the ends of the levers to receive the respective dies and adjust them therein, so that, when a die is removed to insert a die of a different thread, the replacing of the first die will require readjustment; or, as is the usual practice, the several levers, with the dies attached, must be removed, and other levers, with different dies, inserted.

The object of this invention is to avoid these difficulties; and it consists in an independent die-holder, within which the die is adjusted, and the holder fitted to the end of the lever, so as to be easily removed therefrom for the introduction of other similar holders with different dies.

A A are the several levers, pivoted in the revolving head, as at B, and opened and closed by means of the cone C on the mandrel, in substantially the usual manner. D are the die-holders, one fitted to the end of each lever. (Shown detached in Fig. 3.) The lever is recessed radially to receive the holders D, as seen in Figs. 1 and 2, and the holders secured therein by bolts or pins *a*, which pass through the end of the lever and the portion of the

holder which sits into the recess, and all the holders are fitted accordingly, so that any number of holders may each in turn be secured in the lever and insure the same relative position. In the face or front of the holder a recess is formed to receive the die F, as denoted in solid black, Fig. 4, and as seen in the other views. The die is secured in the holder by set-screws *d*, and adjusted vertically by means of a screw, *f*.

The series of dies which form a set are fitted into one set of these holders, one for each lever. Other dies for different threads are in like manner fitted to their respective holders. Thus the several sets required for making different-threaded bolts are made interchangeable. One set may be removed, another set inserted, and when their work is accomplished the first may be returned with the certainty of their resuming identically the same position as when first used, and without readjustment.

In order to insure the proper relative position of each die in its holder I form a rib or spline, *n*, vertically on one side of the dies and a corresponding groove in the holder, as seen in Fig. 4, so that when relieved from the set-screws the die may be drawn out from the holder and replaced in precisely the same position.

I claim as my invention—

1. In a bolt-cutting machine in which the thread-cutting dies are arranged in the ends of the levers, substantially as described, the said levers constructed with a recess to receive and define the position of the holders D, and means, substantially as described, for securing the holders always in the same relative position, and the said holders recessed to receive the dies F, and provided with means, substantially such as described, for adjusting the said dies, as herein set forth.

2. The dies F, constructed with the rib *n*, and the holders D with a corresponding groove, substantially as and for the purpose described.

Witnesses:

MERRITT HINE.

A. J. TIBBITS,

J. H. SHUMWAY.