

G. Dunham.

Nut Machine.

N^o 50,923.

Patented Nov. 14, 1865.

Fig: 1.

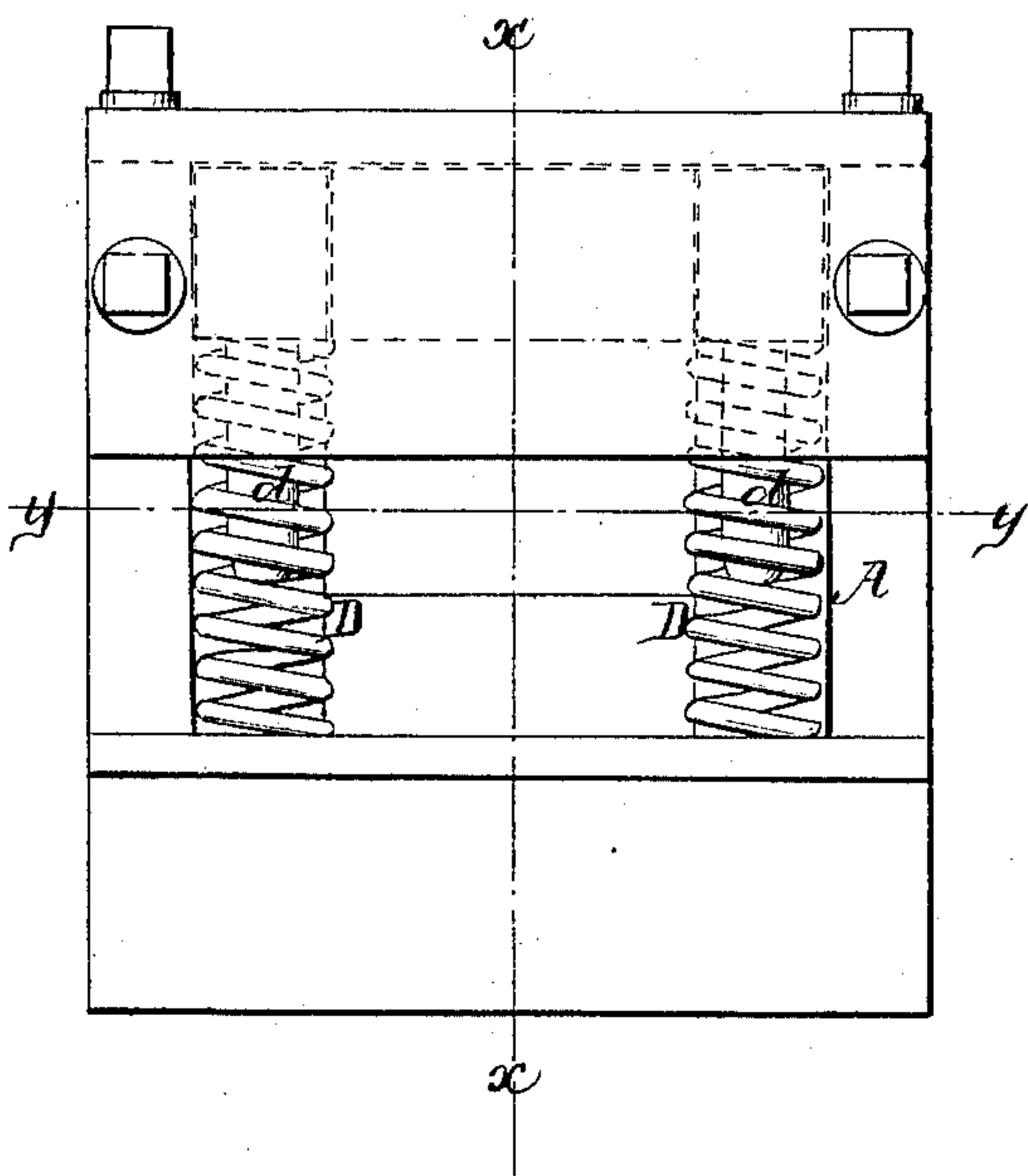


Fig: 2.

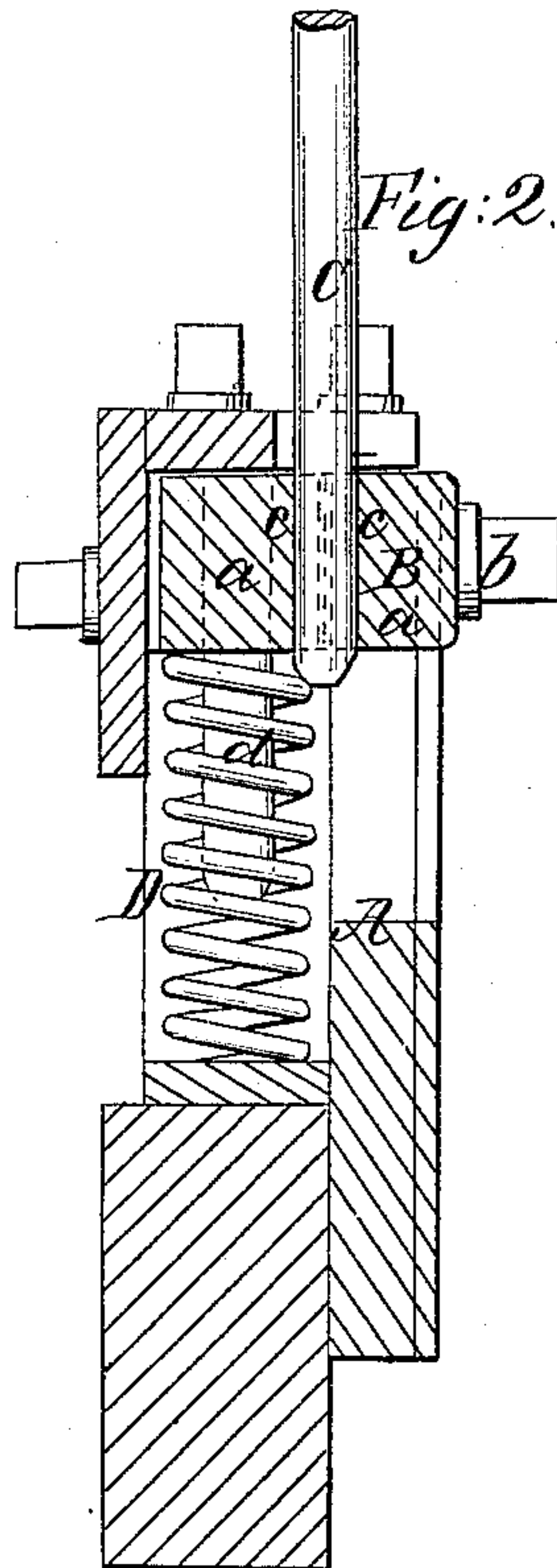
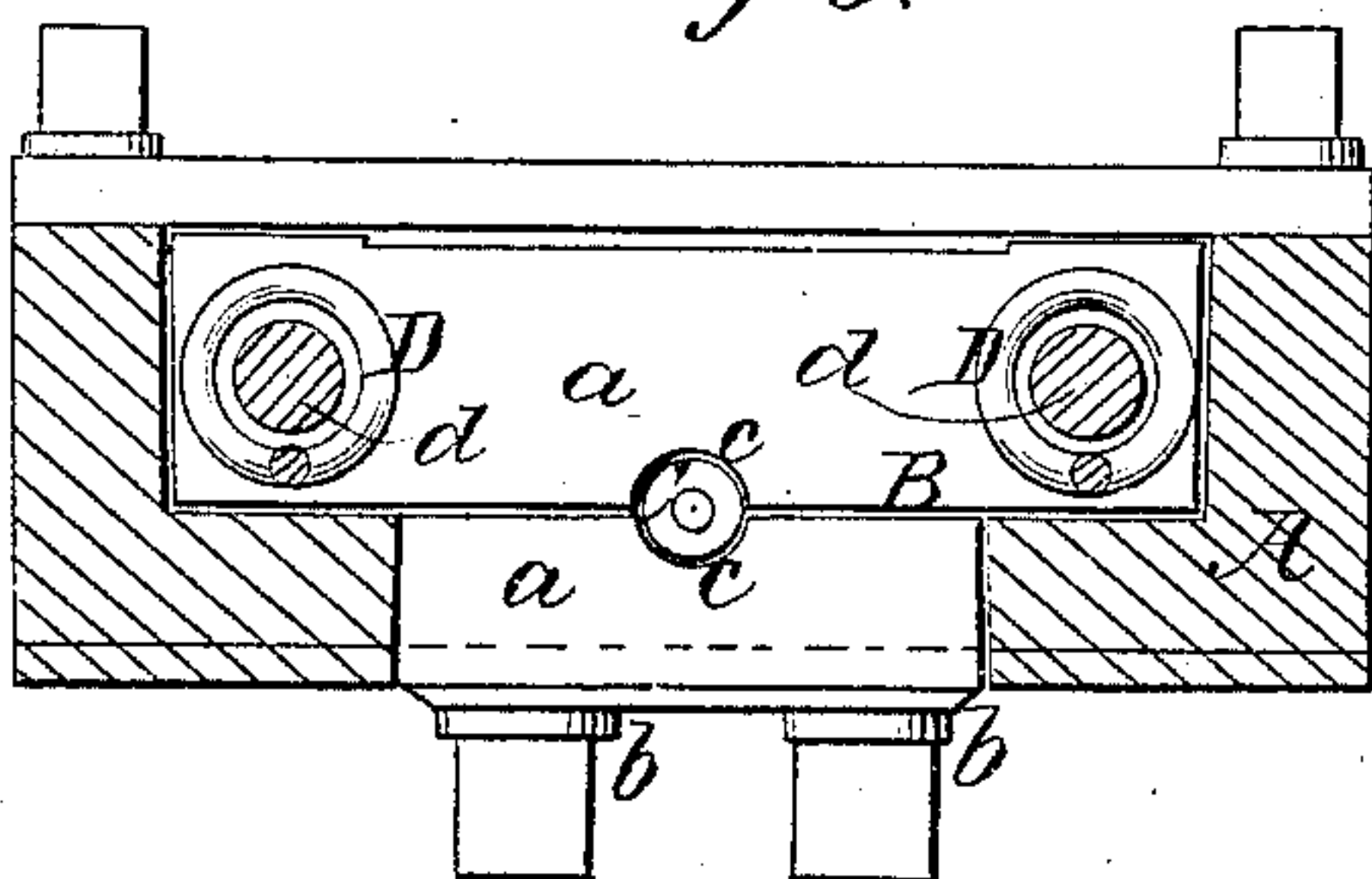


Fig: 3.



*Witnesses;
Henry Morris
L. L. Foppliff*

*Inventor;
George Dunham
Per James H. Co
attorneys*

UNITED STATES PATENT OFFICE.

GEORGE DUNHAM, OF UNIONVILLE, CONNECTICUT.

IMPROVEMENT IN NUT-MACHINES.

Specification forming part of Letters Patent No. **50,923**, dated November 14, 1865; antedated July 1, 1865.

To all whom it may concern:

Be it known that I, GEORGE DUNHAM, of Unionville, in the county of Hartford and State of Connecticut, have invented a new and useful Improvement in Machines for Making Nuts for Screw-Bolts; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable any one skilled in the art to make and use the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side view of my invention; Fig. 2, a vertical section of the same, taken in the line *x x*, Fig. 1; Fig. 3, a horizontal section of the same, taken in the line *y y*, Fig. 1.

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

This invention relates to a new and useful improvement in those machines for making nuts for screw-bolts in which a punch or rod is employed and forced through the hole in the nut for holding the same while its sides are being hammered and made perfectly true and smooth, in order to have a finished appearance. These punches or rods, if the holes in the nuts are not brought directly over and in line with them, will come in contact with the nuts instead of being forced through their holes, and the consequence is that the punches or rods are frequently bent or broken from that cause, as the latter have not hitherto been allowed to yield or give, in order to prevent such a contingency. Accidents to the punches or rods from this cause most frequently occur when an imperfect nut is forced into the chamber, as they are invariably, owing to their deficient dimensions, brought with a solid part over the punches or rods.

My invention consists in having the stock in which the punch or rod is fitted arranged with springs in such a manner that the former may, in case of being forced against a solid part of a nut, be allowed to yield or give, and thereby prevent the difficulty alluded to.

The invention is more especially designed to

be applied to the nut-machine of Philip Koch, patented April 18, 1863, but it may be used in any nut-machine which is provided with a punch or rod for the purpose specified.

A represents a box or stock in which a clamp, B, is fitted and allowed to slide freely up and down. This clamp is composed of two parts, *a a*, connected by screws *b b*, and having a vertical semicircular groove, *c*, made in each of their abutting surfaces to receive the punch or rod C, which is firmly grasped and held by screwing up the screws *b*.

One of the parts *a* of the clamp is provided with two cylindrical rods, *d d*, which are fitted within spiral springs DD, placed within the box or stock. These springs have a tendency to keep the clamp B pressed upward against the top of the box or stock, as shown clearly in Fig. 2. These springs DD, it will be seen, admit of the punch or rod C yielding or giving in case it comes in contact with a solid portion of a nut when the box or stock is moved, with a view of forcing the punch or rod through the hole in the same. The box or stock is moved automatically, and consequently if the punch or rod strikes the solid part of a nut and the springs D are not used the punch or rod must break or bend. Instead of spiral springs, either of elliptical or other form may be used.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The yielding clamp B, composed of jaws *a a*, grasping the rod or mandrel C, so arranged in a nut-machine that when the mandrel shall fail by the wrong presentation or faulty shape of a nut to enter the hole in the same the clamp B shall recede in the stock A by the collapse of the springs DD and the mandrel be saved from fracture or deflection, the whole arranged as described and represented.

GEORGE DUNHAM.

Witnesses:

MORTIMER S. JOHNSON,

CHAS. H. GRAHAM.

CHAS. H. GRAHAM