

(No Model.)

S. WARD.
LEATHER CUTTING DIE.

No. 548,101

Patented Oct. 15, 1895.

Fig. 1.

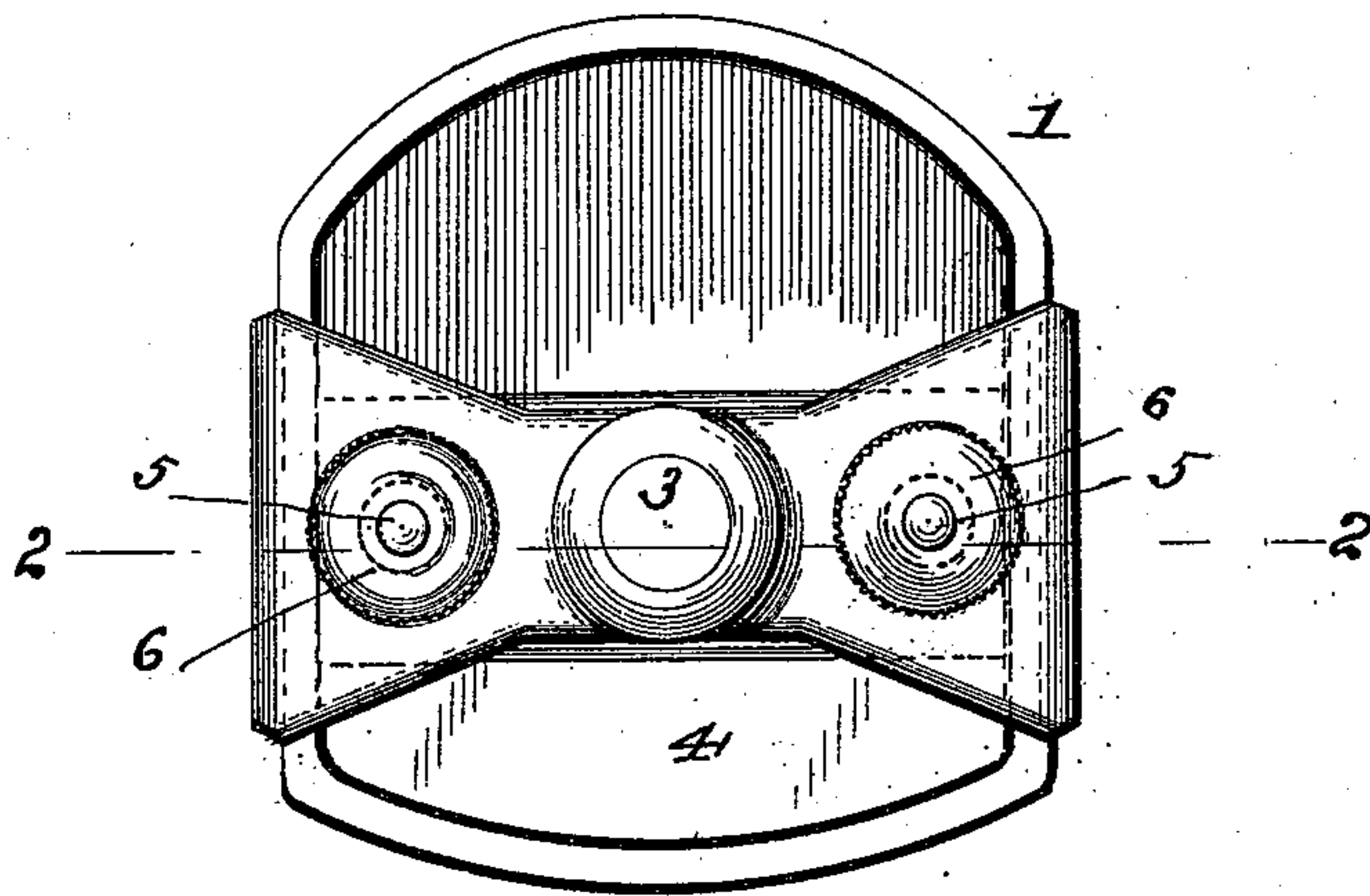
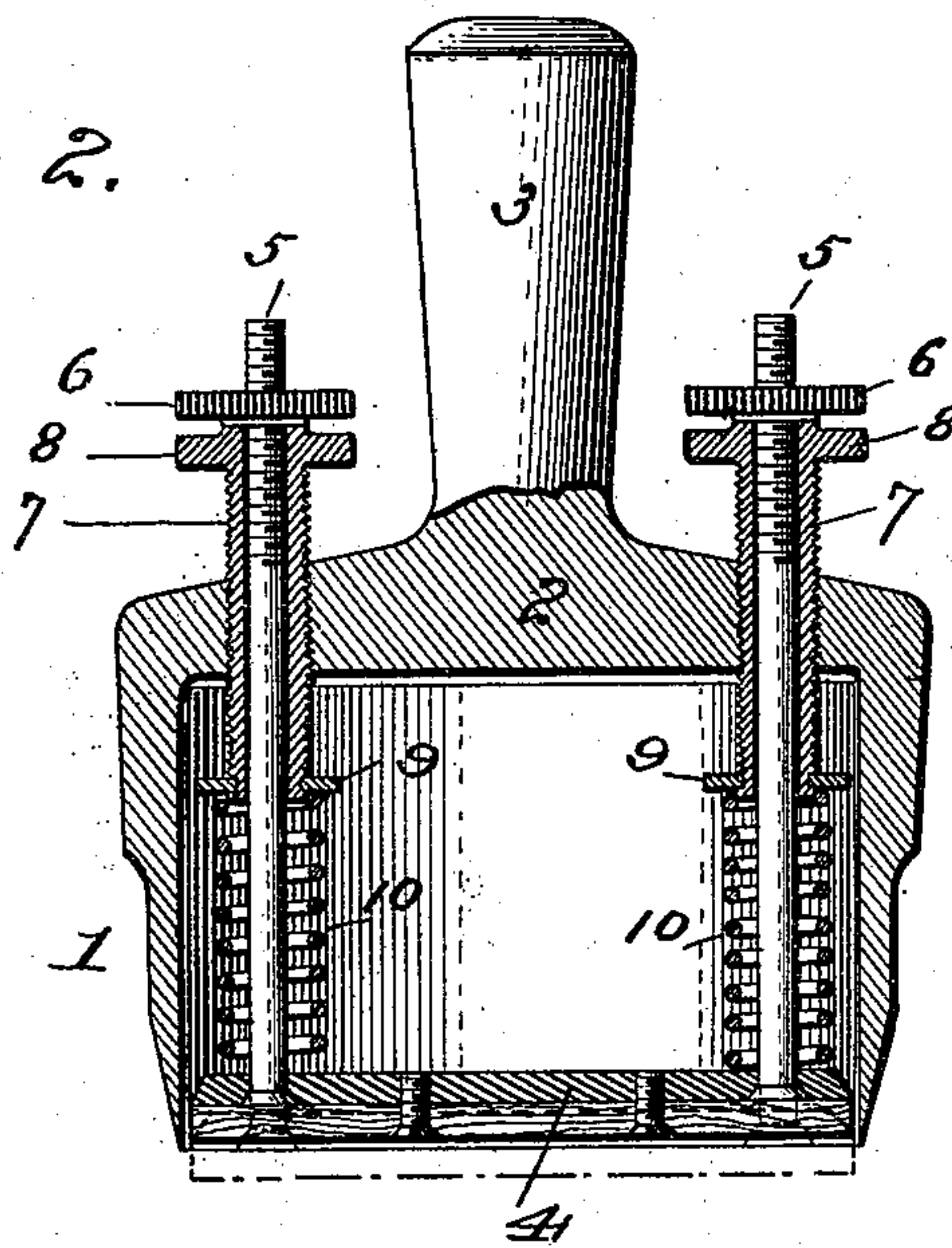


Fig. 2.



Witnesses

G. M. Lamasure
Chas. W. Myer

Inventor,

Seth Ward
By Alexander D. Davis
Attorneys.

UNITED STATES PATENT OFFICE.

SETH WARD, OF PRINCETON, INDIANA.

LEATHER-CUTTING DIE.

SPECIFICATION forming part of Letters Patent No. 548,101, dated October 15, 1895.

Application filed August 19, 1895. Serial No. 559,775. (No model.)

To all whom it may concern:

Be it known that I, SETH WARD, a citizen of the United States, residing at Princeton, in the county of Gibson and State of Indiana, have invented certain new and useful Improvements in Leather-Cutting Dies, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

10 Figure 1 is a side elevation of my improved die, and Fig. 2 a vertical sectional view thereof on line 2 2 of Fig. 1.

This invention relates to new and useful improvements in dies for cutting from leather or other soft material pieces of any desired formation; and it has for its object to provide a simple device by means of which the pieces as they are cut from the sheet of material will be forced out of the punch or die automatically.

20 The invention consists in providing a circular or other form of hollow punch or die with a spring-pressed follower or plunger which will force the cut pieces from the die, in combination with means for varying the tension of the springs and adjusting the plunger to and from the cutting-edge of the die.

Referring to the various parts by numerals, 1 designates the die, which is hollow and is substantially heel-shaped in plan view, said die being formed with vertical walls, which are beveled inwardly at their lower edges to form the cutting-edge of the die. Formed integral with the die at its upper end is a cross-bar 2, from the center of which the handle or stock 3 projects upwardly. This cross-bar and stock are made very strong in order to stand the blows necessary to drive the die through the leather or other material. Fitting loosely within its cutting-edge is the discharger 4, which is of substantially the same contour as the die, and extending upwardly from which are two bolts 5, provided on their upper ends with the milled nuts 6. Each of these bolts passes up through a sleeve 7, which is threaded externally and screwed through a threaded opening in the cross-bar 2, and which is provided on its upper end with an integral milled nut or disk 8 the same size as the nuts 6. On the lower end of each of the sleeves is a disk 9, between which and the plunger is confined an expansible coil-spring 10, which surrounds the rod 5.

It will be observed that the action of the springs is to automatically force out of the die each piece of material as it is cut, it being simply necessary to raise the die from the support on which the material is cut to permit the springs to act on the plunger and discharge the cut material. To adjust the plunger with respect to the cutting-edge it is simply necessary to turn the nuts 6, which bear upon the upper ends of the sleeves 7 by reason of the expansive action of the springs; and to vary the tension of the springs the threaded sleeves 7 are adjusted by means of their milled disks. When it is desired to vary the tension of the springs without disturbing the position of the plunger, both the nuts 6 and 7 are turned in the same direction simultaneously, the threads on the rods and on the sleeves being of the same pitch for this purpose.

It will be seen that by turning the nut 6 independently of the disks 8 the plunger may be projected beyond the cutting-edge, as shown in dotted lines in Fig. 2. The advantage of this is that the projecting plunger will protect the cutting-edge from injury when it is temporarily laid away, and also that the tension on the springs will be relieved and they will be permitted to rest until it is again desired to use the die.

Having thus fully described my invention, what I claim is—

The combination of a hollow die formed with a cutting edge, a cross bar on its upper edge and provided with a handle or stop, a discharger fitting within the cutting edge, a pair of rods rising from the discharger and passing through openings in the cross bar and threaded at their upper ends, a sleeve 7 surrounding each rod and threaded into the opening in the cross bar and provided with a head or nut at its upper end, a spring between each of said sleeves and the discharger, and a nut on each of the rods adapted to bear upon the upper end of the sleeve, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

SETH WARD.

Witnesses:

J. R. MCCOY,
JOHN W. EWING.