

No. 681,811.

Patented Sept. 3, 1901.

H. PARSONS.  
MACHINE FOR CUTTING LEATHER, &c.

(Application filed Sept. 5, 1899.)

(No Model.)

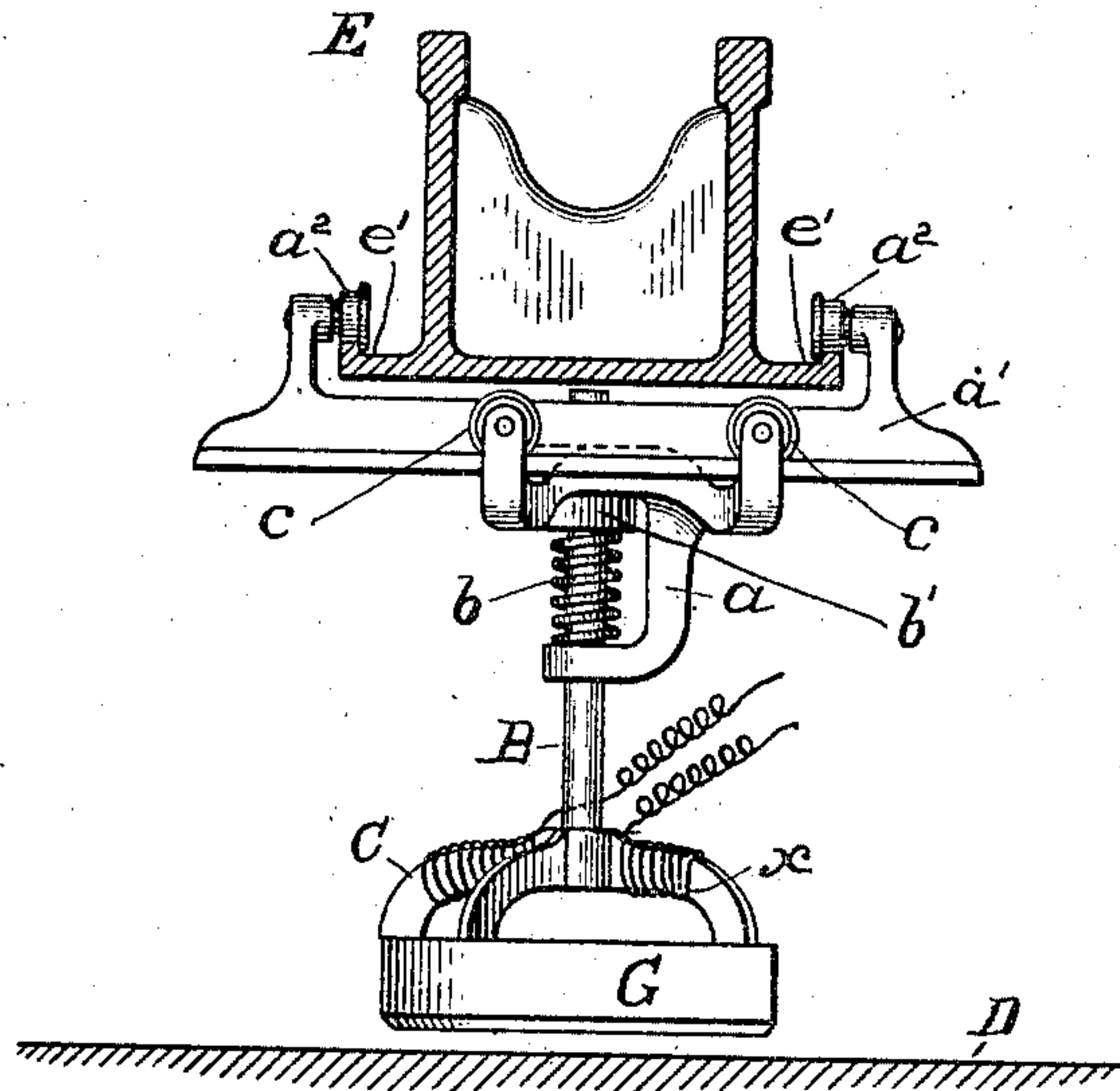


FIG. 1.

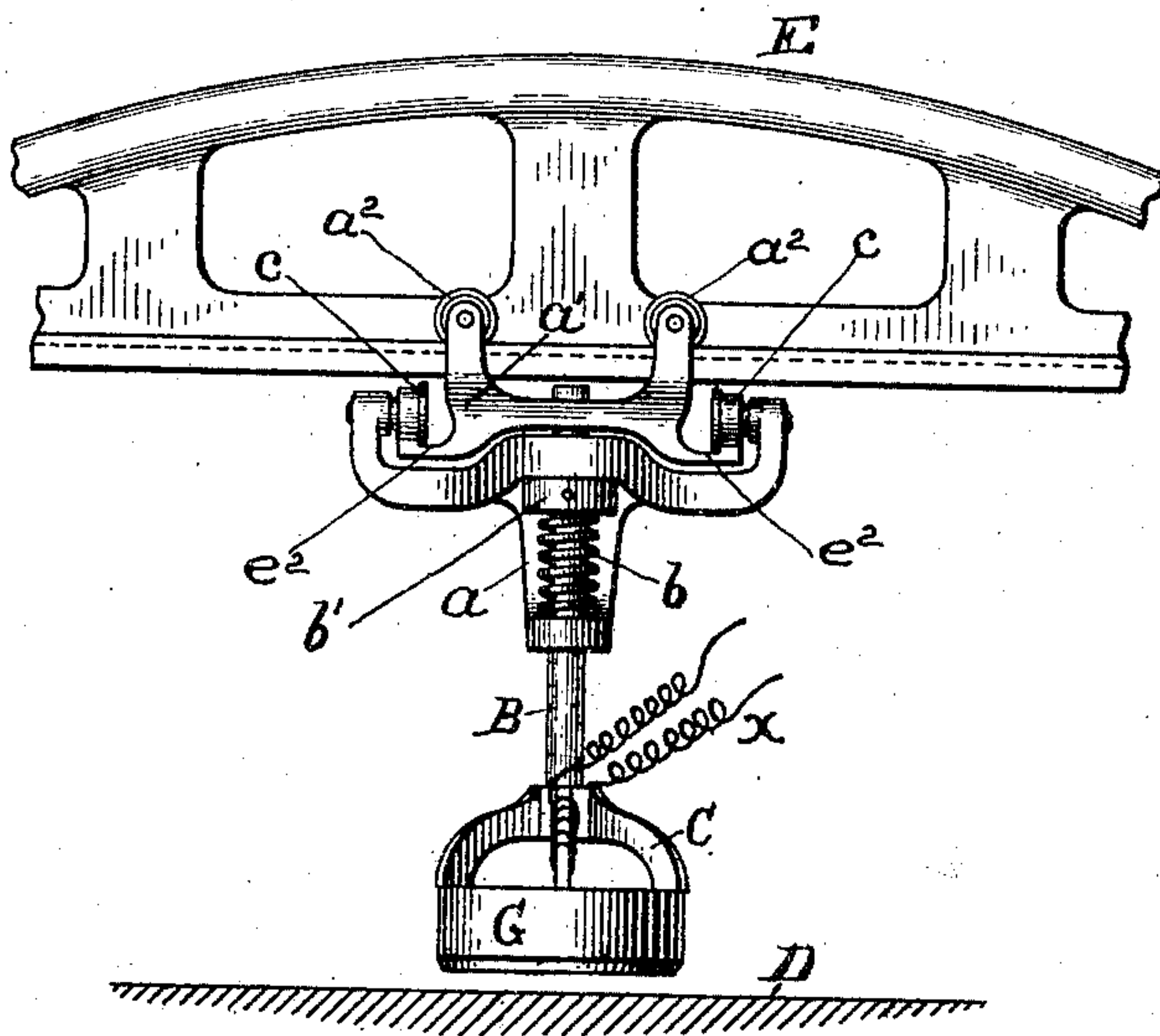


FIG. 2.

WITNESSES:

*James B. Hall*  
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INVENTOR:

*Henry Parsons.*  
By his Attorney,  
*Rowdon S. Parker.*



# UNITED STATES PATENT OFFICE.

HENRY PARSONS, OF MARLBORO, MASSACHUSETTS.

## MACHINE FOR CUTTING LEATHER, &c.

SPECIFICATION forming part of Letters Patent No. 681,811, dated September 3, 1901.

Application filed September 5, 1899. Serial No. 729,412. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY PARSONS, of Marlboro, in the county of Middlesex and State of Massachusetts, have invented certain  
5 new and useful Improvements in Machines for Cutting Leather and other Materials, of which the following is a specification.

My present invention is an improvement upon my inventions patented August 9, 1887,  
10 No. 368,108, and August 8, 1899, No. 630,402. These relate to what are denominated "beam die-presses," wherein a vertically-reciprocating beam is employed to force downward cutting-dies placed beneath upon the material  
15 to be cut, which material rests upon an adjustable bed. As my present device is confined to the parts shown in the drawings, it is not deemed necessary to describe further the original machine, which is well known  
20 and has for many years been in extensive use.

In my Patent No. 630,402 I employ a swinging arm supported by a movable carrier, suitably secured to the beam of the machine, the free end of the said arm having a spindle  
25 through which power from the beam is communicated to the die by the means set forth. In my present device I dispense entirely with the swinging arm and by a novel arrangement of parts enable the operator to move  
30 the spindle both lengthwise and crosswise of the beam with great facility without in any manner detracting from the vertical movement of the spindle to and from the bed in attaching and detaching the die to the holder  
35 on the lower end of the spindle or preventing the setting of the die correctly upon the surface of the article to be died out. The movement of the spindle-carriers in the present invention is so limited that the spindle is  
40 always directly under the beam, and the full power of the beam may be exerted directly on the die in all positions. The carriers are essentially frames open at their centers, and the die-spindle is supported on the carriers,  
45 as will be explained.

In the drawings like letters indicate corresponding parts.

Figure 1 is an elevation of the device, the beam being represented in cross-section.  
50 Fig. 2 is a side elevation of the device, the beam being shown in part on the side.

E is the vertically-movable beam of the

machine. On each side, running lengthwise, is preferably formed a projection or ledge  $e'$   
 $e'$ . This ledge forms a suitable support for 55 the carrier  $a'$ , which is essentially a rectangular frame, open at the center, and said carrier is held in position by the rolls  $a^2 a^2$ , which rolls are connected to the carrier substantially as described in my Patent No. 630,402. 60 The carrier  $a$  is readily moved lengthwise of the beam. The carrier  $a'$  is essentially a rectangular frame, open at its center, and is formed in its lower portion with a ledge  $e^2 e^2$   
65 on each side in cross-section of the main carrier. Suspended beneath is the supplemental carrier  $a$ , held in position and sustained by the rolls  $c c$ , running upon the ledge  $e^2 e^2$ , and the whole of the supplemental carrier and its dependencies readily movable width- 70 wise of the beam. The carrier  $a$  is preferably formed with the arm extending downward, as shown, for the holding of the vertical spindle B, the said spindle being journaled in the carrier  $a$  at two points, as shown, 75 and held in place by the spring  $b$  and the collar  $b'$ . The spring and collar also furnish ready means of adjusting the height of the spindle from the bed D or the top of the material on the bed to be cut. 80

At the bottom of the spindle B is suitably and preferably movably secured a holder, and suitable means is provided for securing the said holder C to the die G, and while this may be done by mechanical means I much 85 prefer to arrange for temporarily magnetizing the holder, as by this means the die can be more quickly seized and when necessary to change the die can quickly be detached and another secured. This I accom- 90 plish by placing a wire  $x$  suitably around the holder or some part of it and employing electricity derived from any convenient source. For the smaller dies a permanently-magnetized holder could be used, though I do not 95 deem it nearly as serviceable as the electrical method described.

It will be observed that one of the principal points of my present invention is the vertical and vertically-movable spindle com- 100 bined with means for supporting said spindle while permitting movement both lengthwise and crosswise of the beam, thus enabling the spindle to readily seize and convey a die from



any position beneath the beam to any other position beneath the beam for setting it upon the material to be cut and dieing it out. It will be understood that it is not the intention  
5 to have the top of the spindle quite touch the under side of the beam when held in its normal position. Suitable provision is made so that the upper part of the spindle can pass through the under side of carrier  $a'$  and be  
10 freely moved back and forth across under the beam, as described. When in operation, the beam descends with the carriers  $a'$  and  $a$ , the latter moving down the spindle as the die presses upon the material to be cut until the  
15 beam strikes the top of the spindle and the beam force is communicated directly to the spindle and thence to the holder and the die secured thereto.

I do not wish to confine myself to the exact  
20 details of construction herein shown and described, as the details may be modified without departing from the spirit of my invention.

Instead of the rolls for supporting the carriers it would be possible to use a groove or  
25 grooves with a suitable hanger; but the device would not operate so readily and efficiently.

Having described my invention, what I claim, and desire to secure by Letters Patent  
30 of the United States, is—

1. In a beam die-press, the combination of a vertically-reciprocating beam provided with ledges on its lower edge, a centrally-open carrier supported on said ledges and movable

lengthwise of the beam, said carrier having 35 ledges at its lower edges and extending transversely with reference to the beam, a second centrally-open carrier supported on the ledges of the first carrier and movable thereon, and a yieldingly-held die-spindle supported from the second carrier and extending 40 through the carrier-openings, to be depressed by direct contact of the beam, substantially as described.

2. In a beam die-press, the combination of 45 a vertically-reciprocating beam, a longitudinally-movable carrier supported below said beam a transversely-movable carrier also below said beam on the first carrier, and a spindle supported by the second carrier and movable 50 to all positions beneath the beam, substantially as described.

3. In a beam die-press, the combination of the vertically-reciprocating beam, a carrier supported by the beam and movable length- 55 wise thereof, a second carrier supported by the first and movable in right line crosswise thereof, a die-spindle journaled in an arm extending downward from and forming part of the second carrier, and a spring bearing 60 on said spindle to project it.

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

HENRY PARSONS.

Witnesses:

JOSEPH BEANDRY,  
ARTHUR C. LAMSON.