

No. 656,275.

Patented Aug. 21, 1900.

H. A. STREETER.

METAL CLIP FOR UNITING AND SPACING BEAMS AND BARS IN STEEL BUILDING CONSTRUCTION, &c.

(Application filed Mar. 17, 1900.)

(No Model.)

FIG. 1.

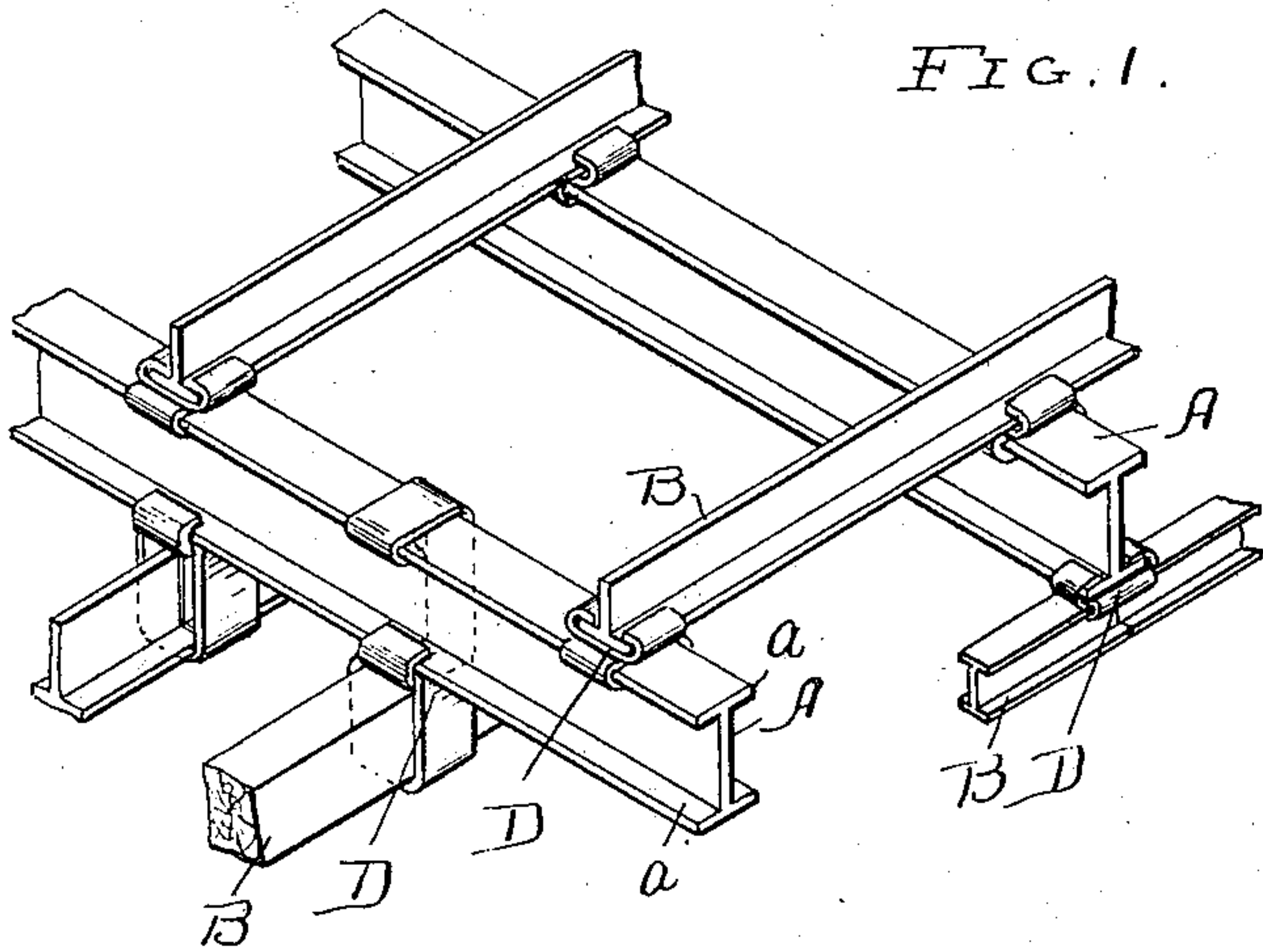


FIG. 2.

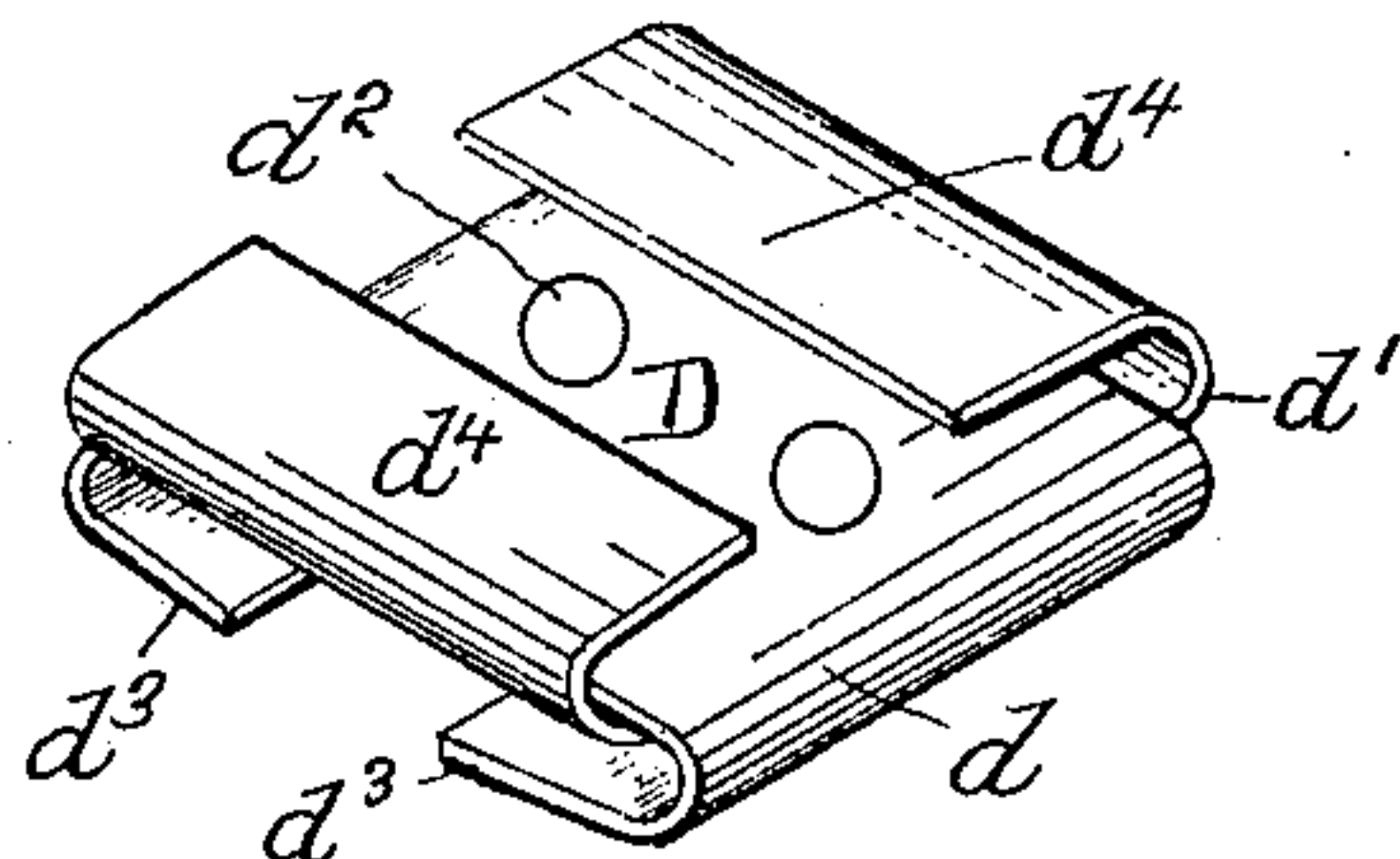


FIG. 3.

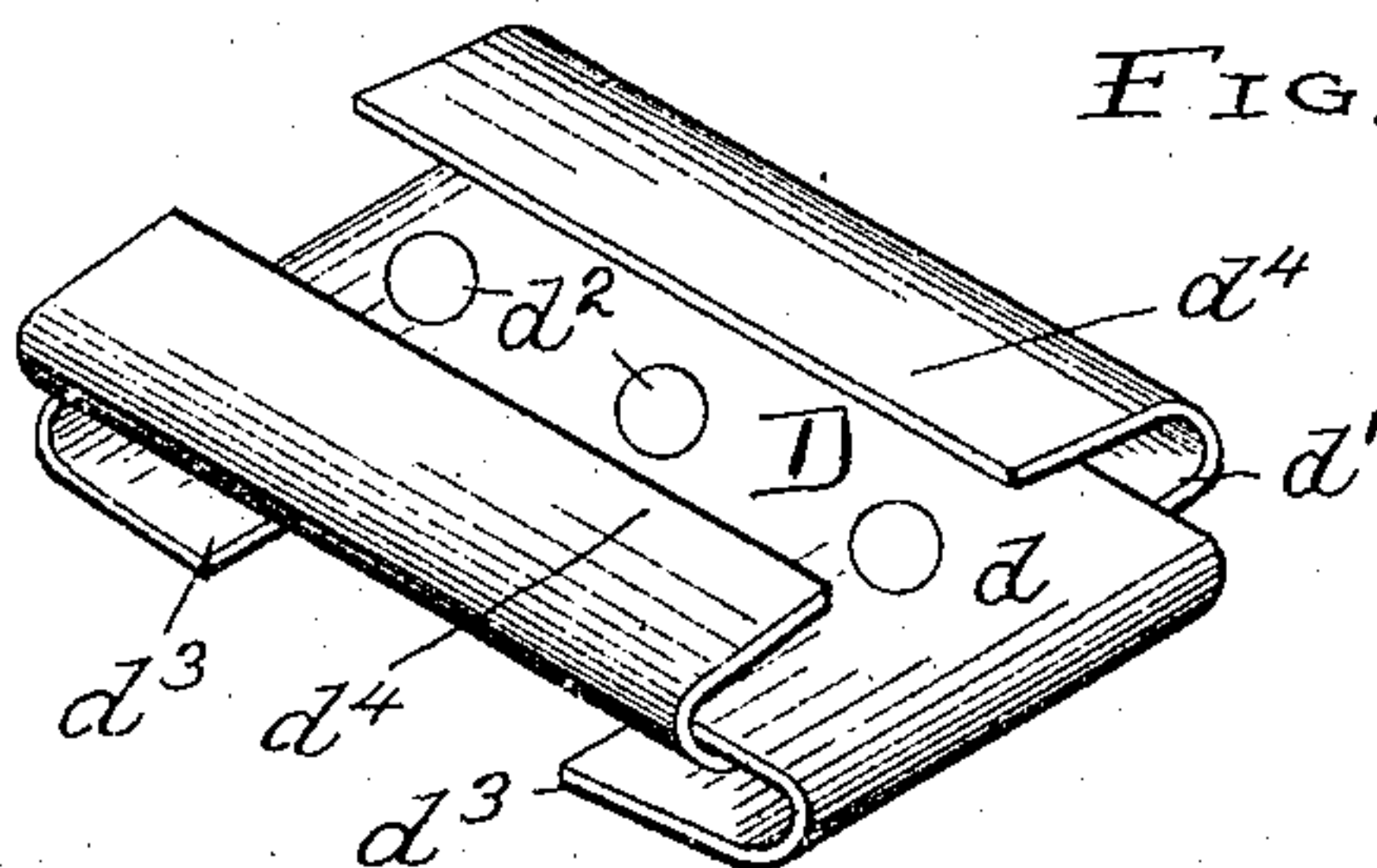


FIG. 6.

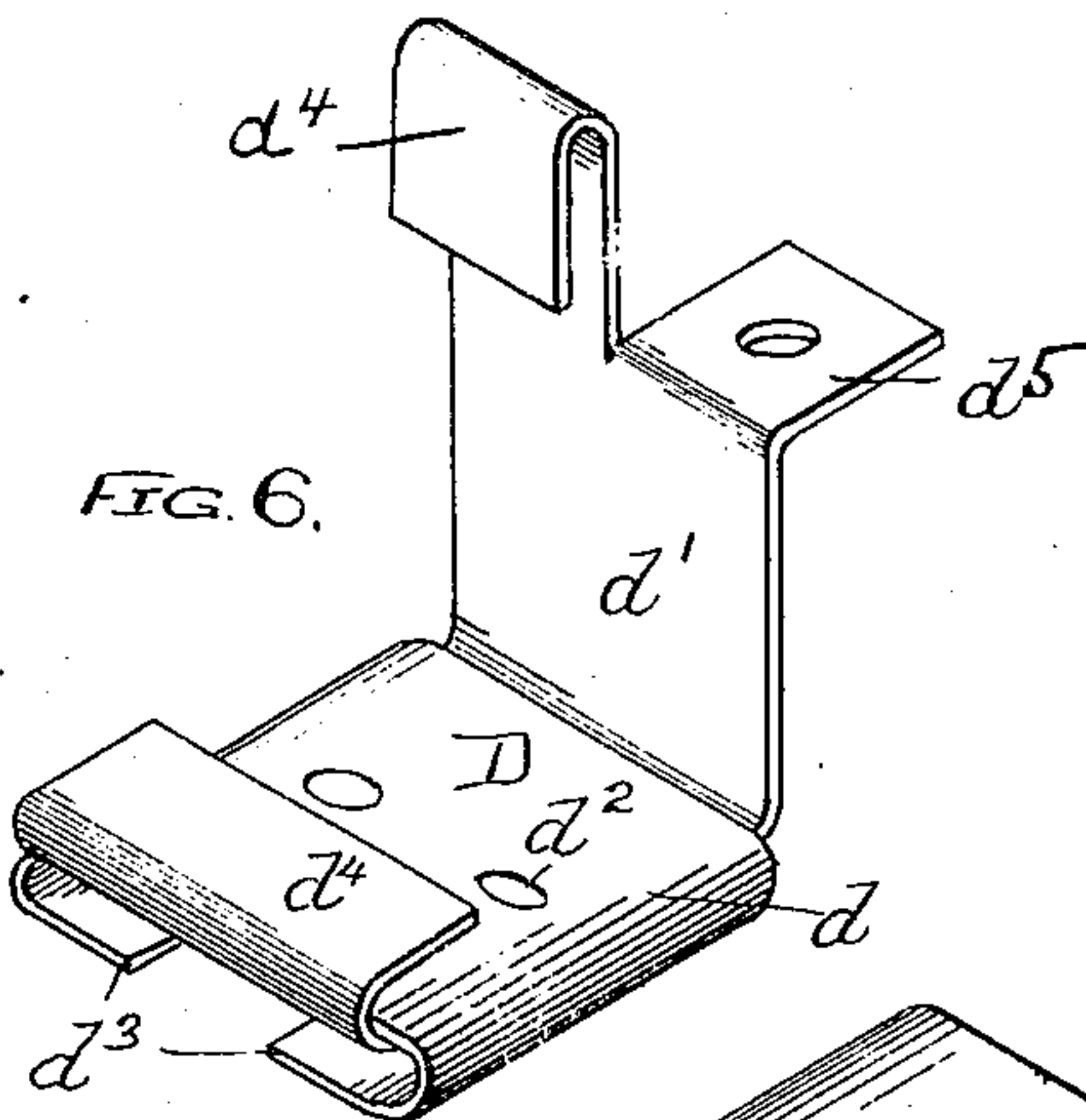


FIG. 5.

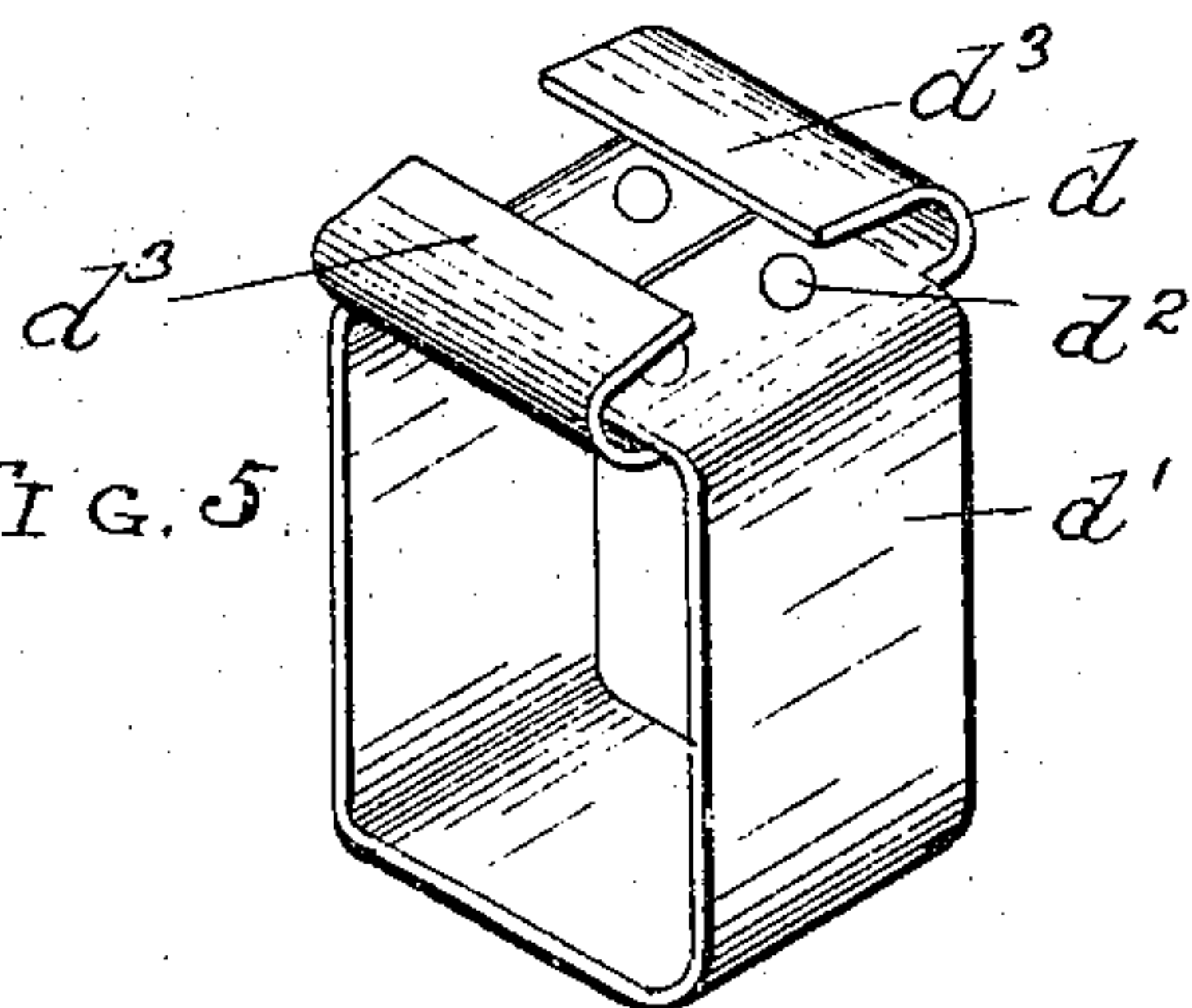
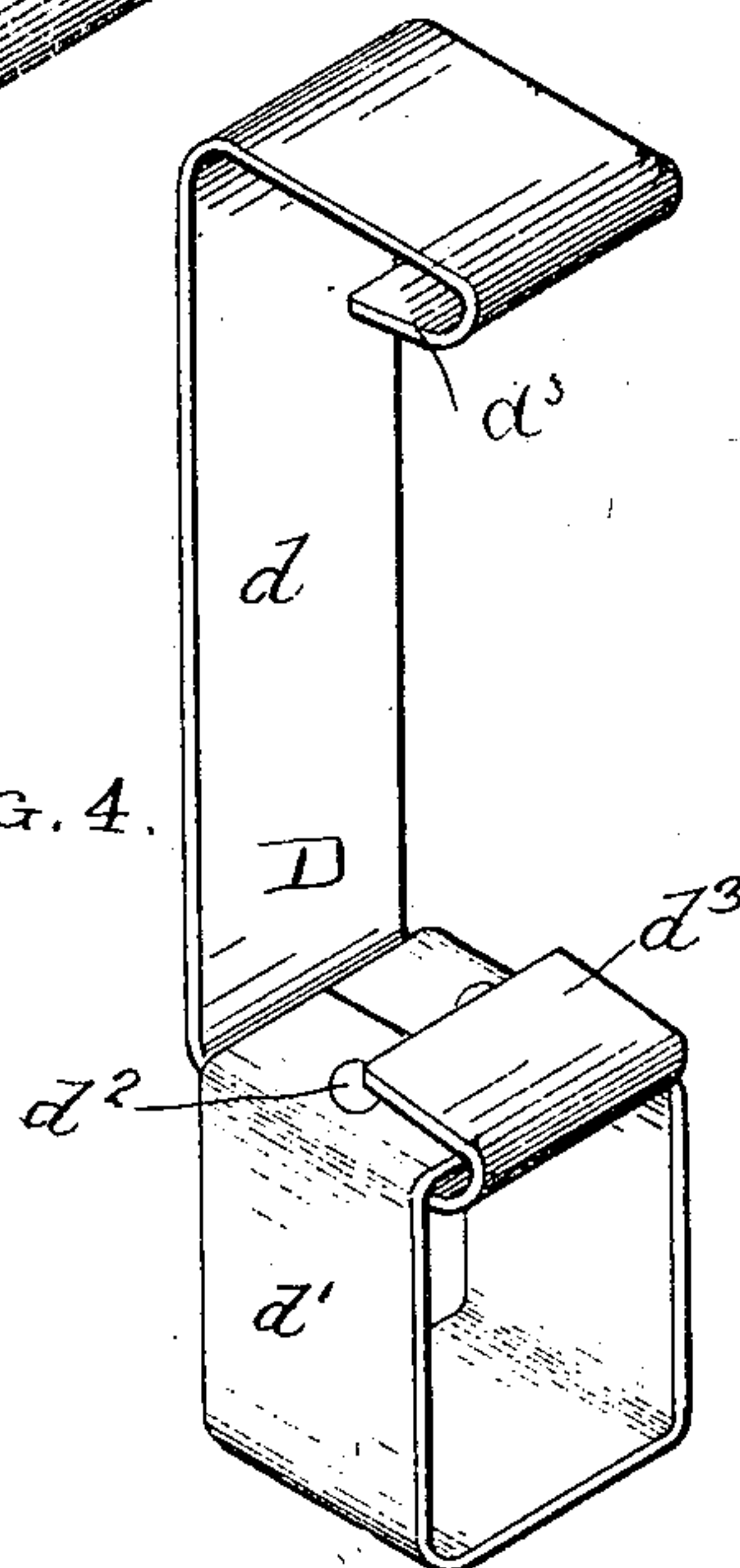


FIG. 4.



WITNESSES.

A. W. Munday,  
Lew. E. Curtis

INVENTOR.

Herbert A. Streeter,  
By Munday, Davis & Adams  
HIS ATTORNEYS



# UNITED STATES PATENT OFFICE.

HERBERT A. STREETER, OF CHICAGO, ILLINOIS.

METAL CLIP FOR UNITING AND SPACING BEAMS AND BARS IN STEEL BUILDING CONSTRUCTION, &c.

SPECIFICATION forming part of Letters Patent No. 656,275, dated August 21, 1900.

Application filed March 17, 1900. Serial No. 9,022. (No model.)

*To all whom it may concern:*

Be it known that I, HERBERT A. STREETER, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Metal Clips for Uniting and Spacing Beams and Bars in Steel Building Construction and other Steel Framework, of which the following is a specification.

My invention relates to improvements in iron or steel clips used in the construction of steel-framework buildings or structures in which the roofs, floors, or ceilings are formed of or supported by steel beams or bars crossing each other; and my invention relates more particularly to improvements in the steel clips heretofore patented to me in Letters Patent of the United States No. 459,051, of September 8, 1891, and No. 551,981, of March 10, 1896.

The object of my present invention is to simplify and improve the construction of said clips and increase their efficiency and strength without waste of metal.

My invention consists in the novel construction of parts and devices and in the novel combinations of parts and devices herein shown and described, and specified in the claims.

In the accompanying drawings, forming a part of this specification, Figure 1 is a perspective view showing a portion of a building or other steel-framework structure having crossing steel beams or bars rigidly and firmly spaced and secured together by steel clips embodying my invention. Fig. 2 is a detail perspective view of one of the clips. Figs. 3, 4, 5, and 6 illustrate the application of the invention to different shapes of beams or bars, showing also slight modifications in the form of the clip.

In the drawings, A and B represent crossing steel beams or bars of a building or other structure. The metal clip D, which spaces and secures together the two beams A and B at their crossings, is made of strap or band metal—that is to say, iron or steel rolled into narrow strips—cut the required lengths to form the two parts or members  $d$   $d'$  of the clip. The two parts or members cross each other at right angles or at such other

angle as may be required, according to the angle the beams or bars A B may have to each other. The two short metal straps  $d$   $d'$  forming the clip are themselves united together by one or more rivets  $d^2$ . The metal clip-strap  $d$  is furnished with two folds  $d^3$   $d^3$  to embrace the flanges or edges  $a$  of the steel beam or bar A. The folds or bends  $d^3$  extend across the length of the strip—that is to say, across the fiber of the metal—and the other metal clip-strap  $d'$  is provided with bends or folds  $d^4$  therein to embrace the transverse beam or bar B, and these folds or bends  $d^4$  are likewise all formed transversely to the length of the steel strip—that is to say, across the fiber of the metal. It will thus be seen that in my improved clip although the bends or folds  $d^3$  and  $d^4$  extend transversely to each other they are all formed across the fiber of the metal, so that the clip as a whole possesses very great strength and there is no danger of any of the folds cracking or giving way, as would be the case if they or any of them were formed parallel to the fiber of the metal. By thus forming my improved clip out of narrow strips or straps of rolled steel and forming the bends or folds across the fiber I not only add very greatly to the strength of the clip as a whole, but also avoid material waste of metal over my former patented construction wherein the clips are made from a single piece of sheet-steel cut to the required form to produce the necessary folds to embrace beams or bars extending at an angle to each other.

In Figs. 4 and 5 the metal clip-strap  $d'$  is shown as being formed into a complete band to embrace the beam or bar B, the meeting ends of the strip  $d'$  being secured by the rivets  $d^2$  to the strip  $d$ .

It will be understood by those skilled in the art that my improved clip may be applied to and used in connection with steel beams or bars of any ordinary or desired shape in cross-section. In the drawings I have illustrated it as being applied to beams or bars of a few different shapes only.

In Fig. 3 the clip-strap  $d'$ , which forms the lower folds  $d^4$   $d^4$ , is made wide to form a support for the meeting ends of two beams or bars B.

In Fig. 6 the clip-strap  $d$  is provided with a ledge, flange, or shelf  $d^5$  to support a tile or other object.

I claim—

5 1. In a steel building or other structure, the combination with crossing beams or bars A, B, of a metal clip composed of two narrow strips or straps extending transversely to each other, furnished with folds transversely  
10 to their length to embrace said crossing beams, substantially as specified.

2. The metal strap-clip composed of two separate straps  $d$   $d'$  crossing each other and

furnished each with transverse folds to embrace a beam or bar, substantially as specified. 15

3. The steel strap-clip composed of two separate straps  $d$   $d'$  crossing each other and united together by a rivet, and provided with folds  $d^3$   $d^3$  and  $d^4$   $d^4$ , said strap  $d$  having a  
20 flange or shelf  $d^5$ , substantially as specified.

HERBERT A. STREETER.

Witnesses:

H. M. MUNDAY,  
L. E. CURTIS.