

(No Model.)

A. D. McCARTY.

DEVICE FOR MAKING POLYGONAL TUBES.

No. 271,492.

Patented Jan. 30, 1883.

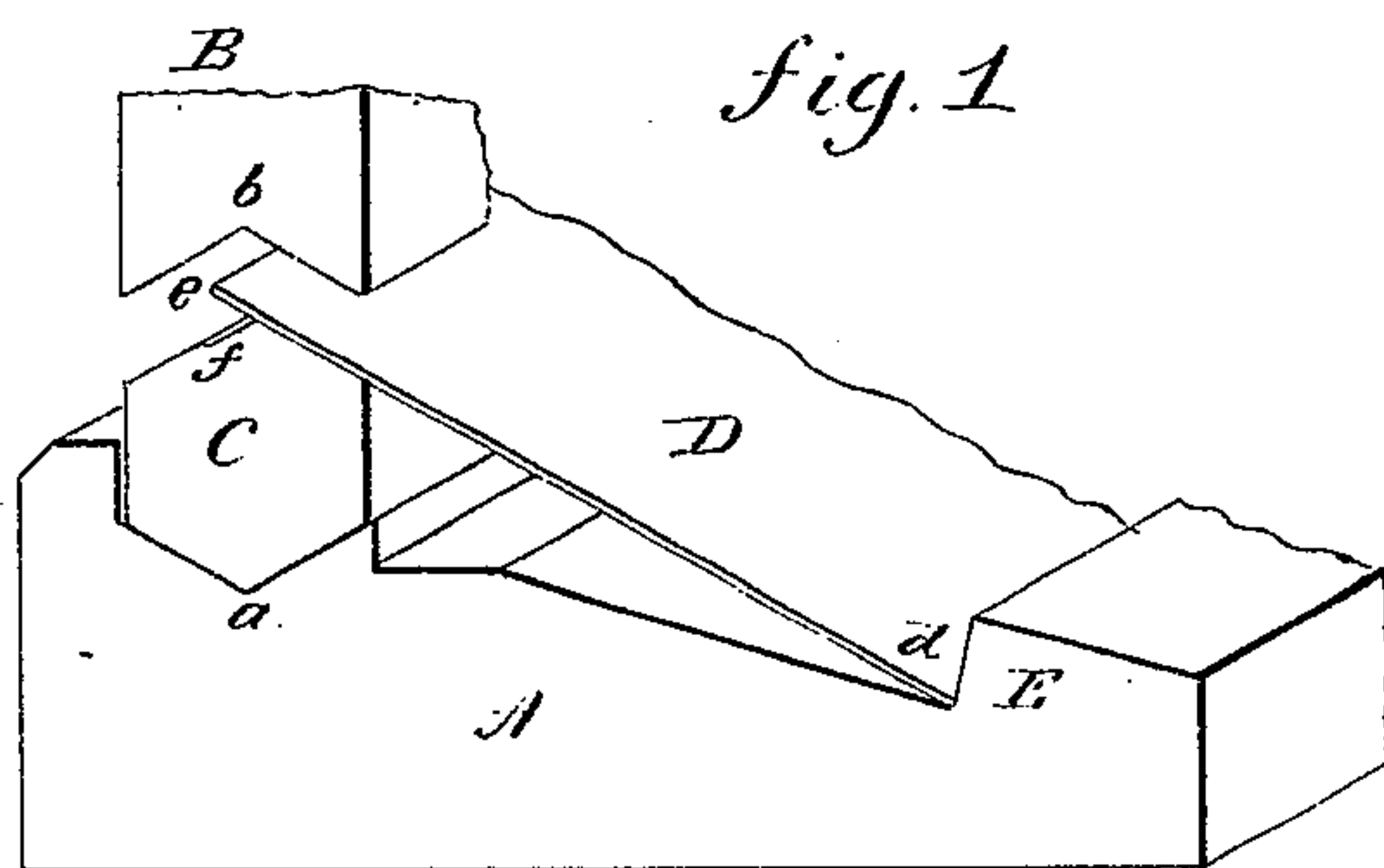


Fig. 2



Fig. 3.

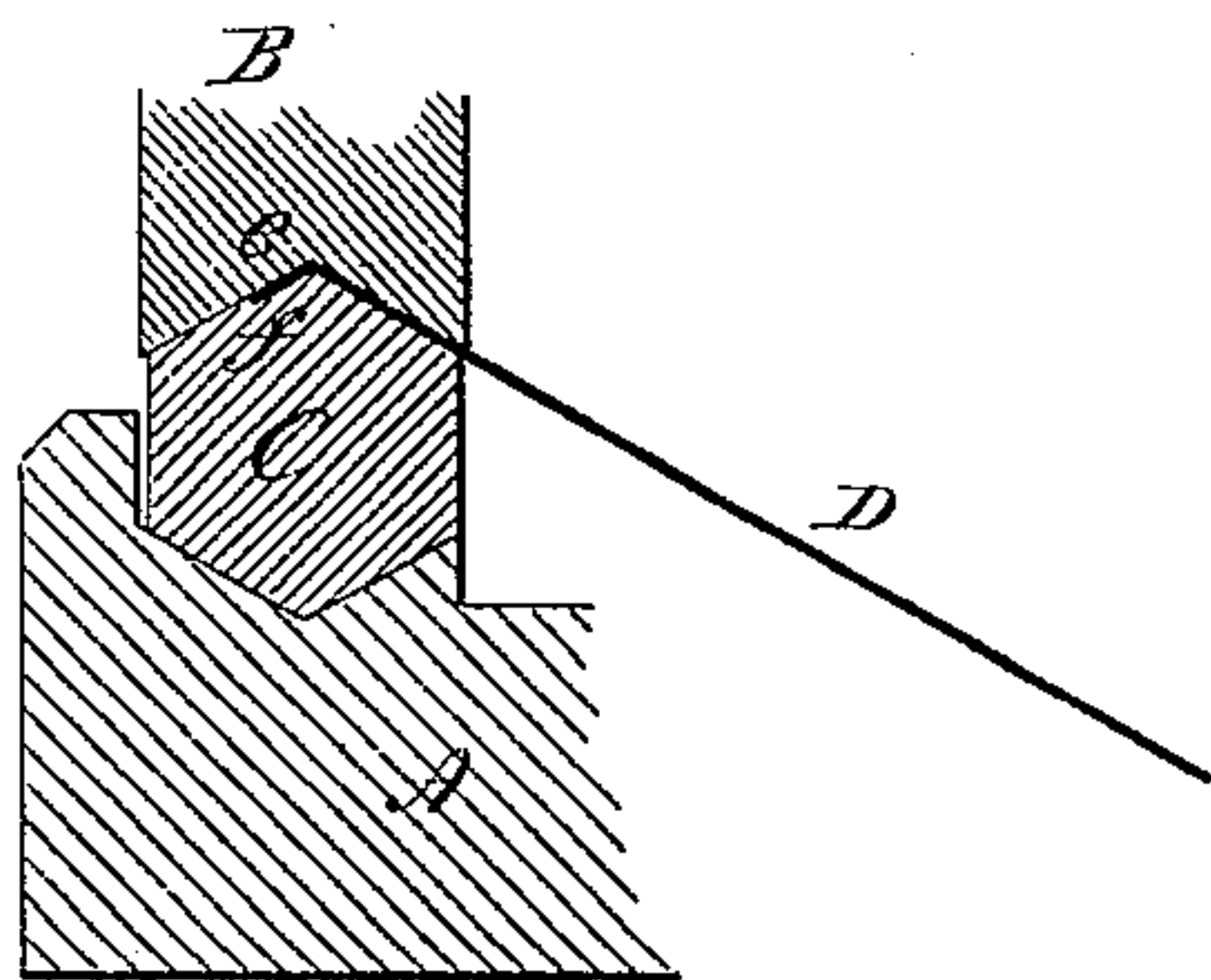


Fig. 4.

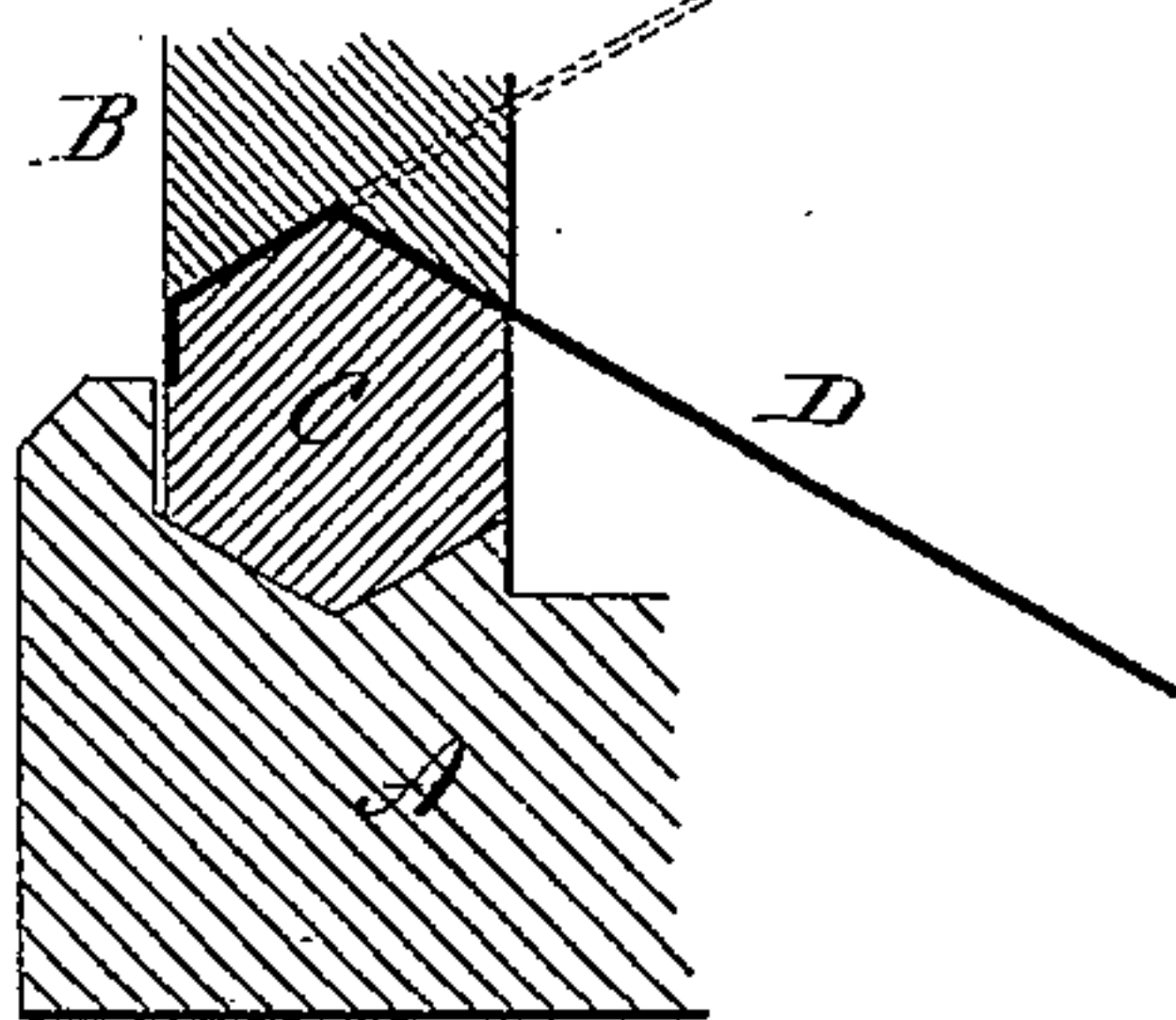


Fig. 5.

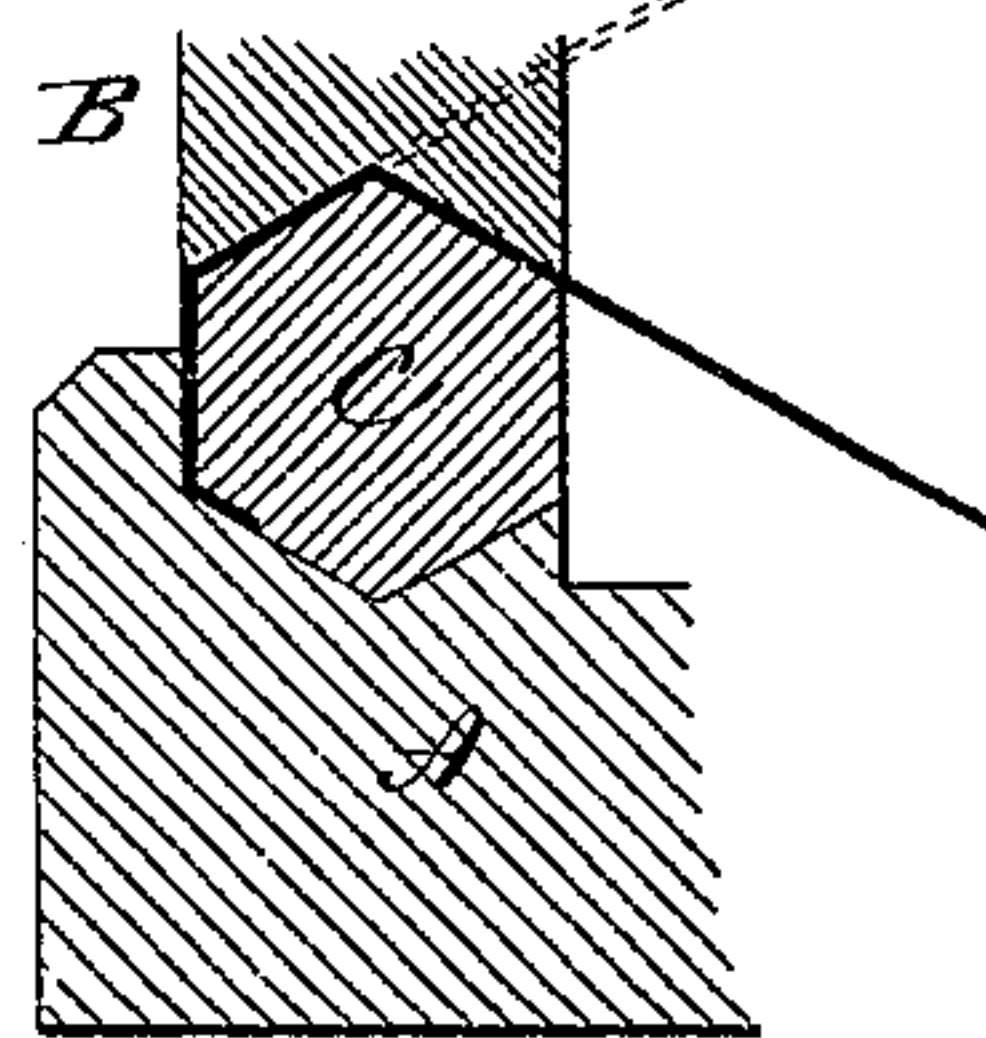


Fig. 6.

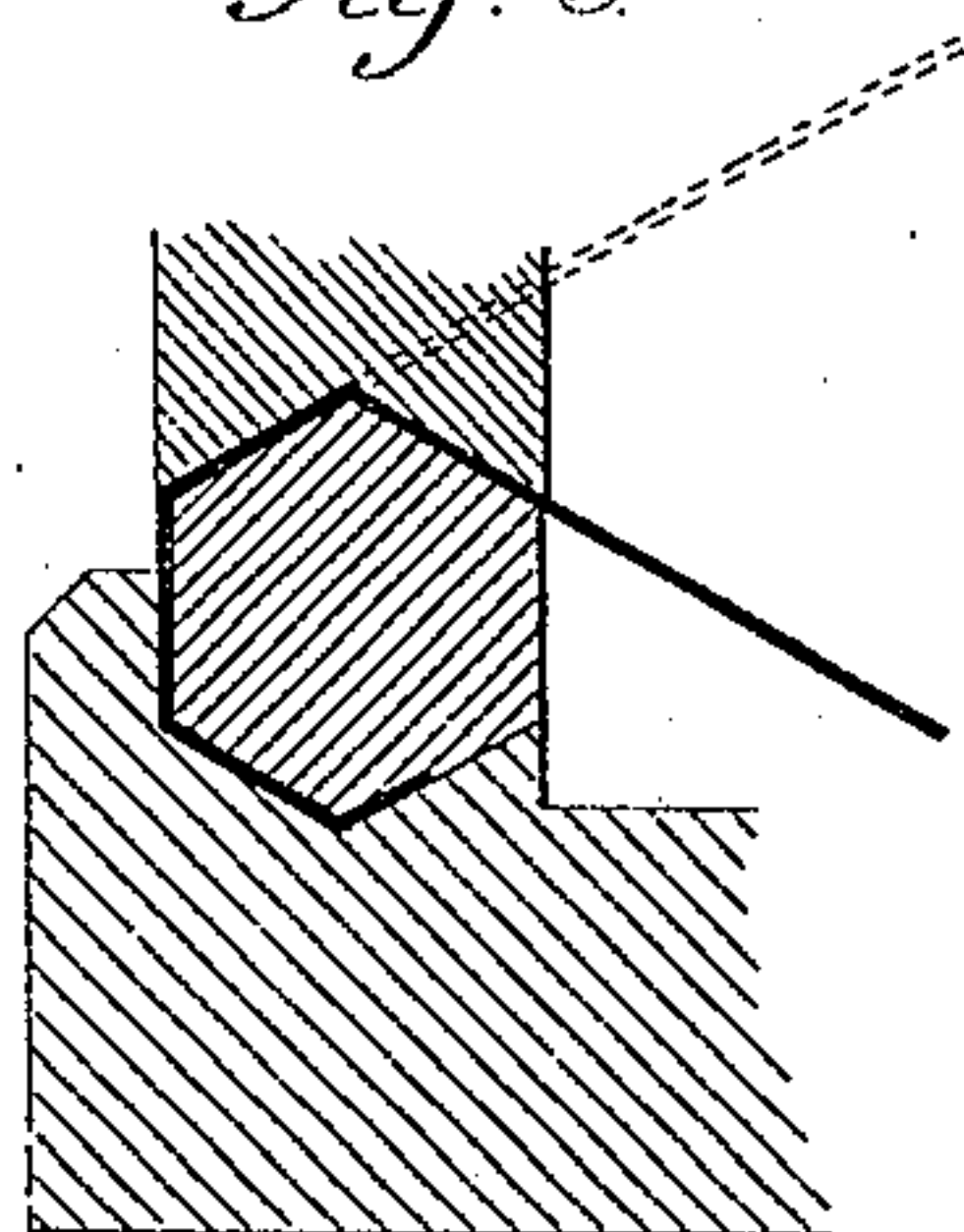


Fig. 7.

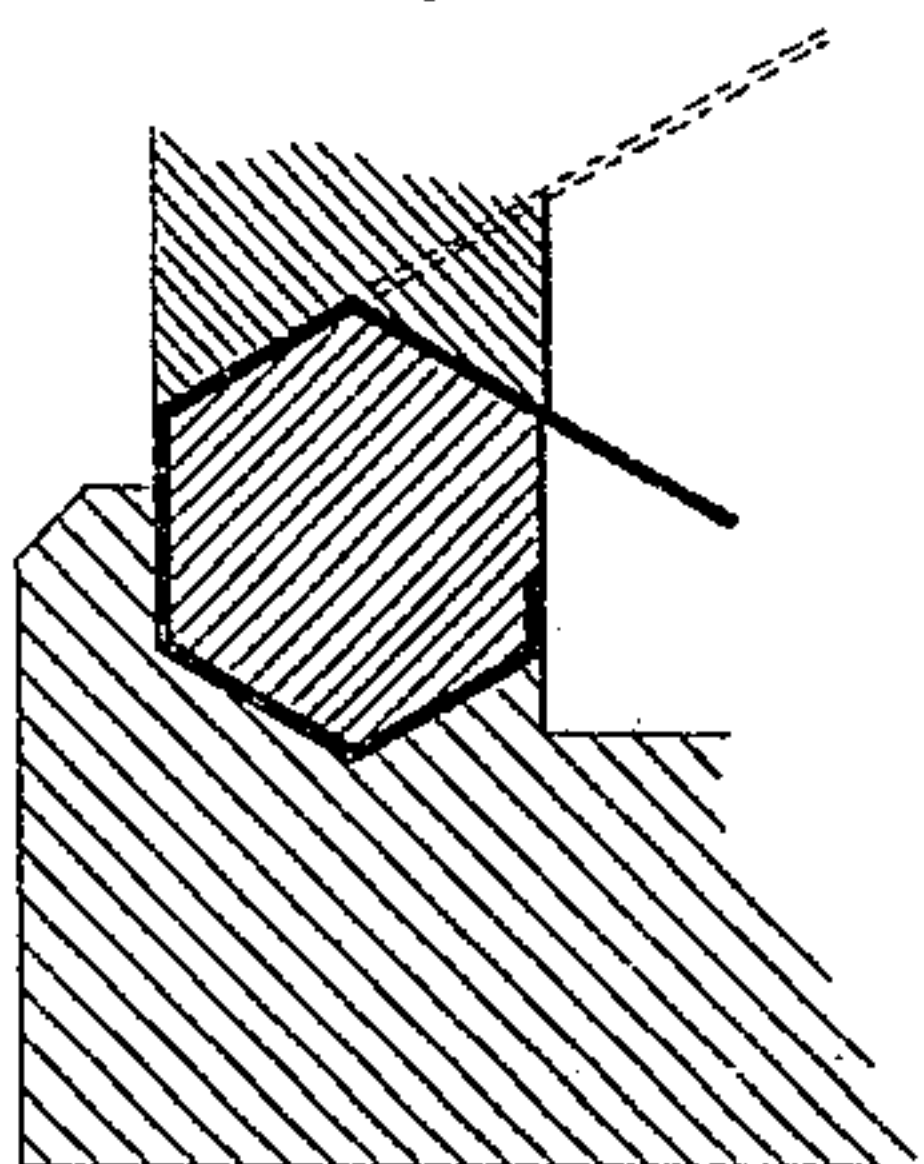
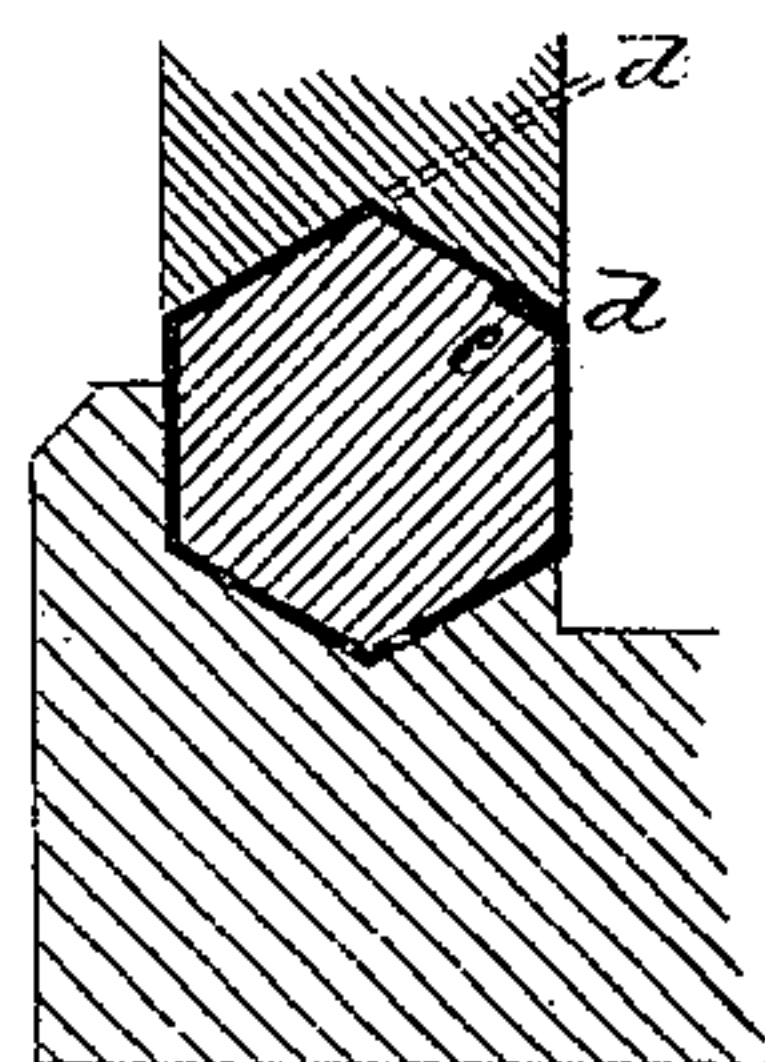


Fig. 8.



Witnesses:

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ADELBERT D. McCARTY, OF EAST HAMPTON, CONNECTICUT.

DEVICE FOR MAKING POLYGONAL TUBES.

SPECIFICATION forming part of Letters Patent No. 271,492, dated January 30, 1883.

Application filed March 17, 1882. (No model.)

To all whom it may concern:

Be it known that I, ADELBERT D. McCARTY, of East Hampton, in the county of Middlesex and State of Connecticut, have invented new
5 Improvements in the Method of Making Polygonal Tubing; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact
10 description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a perspective view, showing the operation; Fig. 2, the tube complete; Figs. 3,
15 4, 5, 6, 7, and 8, transverse sections, showing the successive operations.

This invention relates to an improvement in the method of and dies for making polygonal tubing, such as used for coffin-handle bars and
20 like purposes.

It has been the usual practice in manufacturing this class of tubing to take fine brass cylindrical tubing and work it into the polygonal shape, usually hexagonal. This fine brass
25 has been necessary because of the impossibility, under the usual method, of making sharp angles, which are essential to nice work; hence this class of handles have been expensive and only used for the nicest class of work.

The object of this invention is to construct the bar from common tin or similar cheap sheet metal; and it consists in taking a strip of tin a little wider than the circumference of the tube or handle-bar to be produced, and with
35 dies prepared for the purpose bend the strip around a former, shaping first one angle, then another, successively forming the several angles, until finally the two edges are brought together to be soldered or otherwise fastened, as
40 more fully hereinafter described.

A represents the lower part of the die, which may be arranged on the bed of a common stamping-press; B, the movable part of the die, which is arranged in the reciprocating part
45 of the press in the usual manner, each part constructed respectively with a corresponding angle, *a b*, according to the angle to be formed, here represented as to make a hexagonal shape, the face of the die each side the angle corresponding to the respective sides of the tube to
50 be produced.

C represents a former, which corresponds in shape to the interior of the tube to be produced.

D represents the strip of sheet tin or metal to be employed.

E is a guide arranged parallel with the angle of the dies, and distant therefrom, so that one edge, *d*, of the strip will lie against said guide when the other, *e*, is in proper position with relation to the upper angle of the former C when laid thereon, as seen in Fig. 1, so that the edge *e* projects over the upper angle of that former. The former lies in the lower part of the die, and in the position seen in Fig. 1, the part B of the die is forced down upon the strip, turning its edge *e* down and forming the first angle, as seen in Fig. 3. As the first edge is to be inside the tube, in order to make a strong joint, the former C has a rabbet or groove, *f*, formed on the face of its first angle or side, corresponding to the thickness of the metal, so that this last, striking, will force the edge *e* into that rabbet, as seen in Fig. 3. The first angle shaped, the former is turned to present the next angle, as seen in Fig. 4, and with it the strip is also turned, bringing the projecting part into the position seen in broken lines, Fig. 4. Then the part B is again forced down, bending the strip over the second angle of the former, as seen in Fig. 4. The second angle formed, the former is again turned, as seen in Fig. 5, to form the third angle, and so on through the successive angles, as seen in Figs. 6, 7, and 8. In the last operation the edge *d* is brought down upon the turned-in edge *e*, to which it may be soldered. By these successive bendings of the strip over the former C the angles are formed clean and sharp, and equally as good as can be made from tubing of finer metal. The expense attending this method of making the tubing is no greater than that usually employed for making the same shaped bar from finer metal, and, because when done it affords as perfect surface and angles as the finer metal, the bar is equally as good for all purposes for which these bars or tubes are employed.

For different-sized tubes, it will be understood, the guide E will be moved farther from the angles of the die, so as to bring the strip into proper relative position to the former and dies.

While specially adapted to making the tubes

from cheaper kinds of metals, this method and dies may be employed to advantage in making such tubes from finer metal. I therefore do not wish to be understood as limiting the invention to any particular kind of metal.

I claim—

The combination of the two parts A B of the die, each constructed with faces forming an angle corresponding to the sides and angle of the tube to be produced, with a former in-

troduced between the said two parts of the die and resting in the angle of one part, while the other part bends the strip over the angle of the former above, and the guide E, arranged parallel with the angle of the dies, substantially as and for the purpose described.

ADELBERT D. McCARTY.

Witnesses:

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