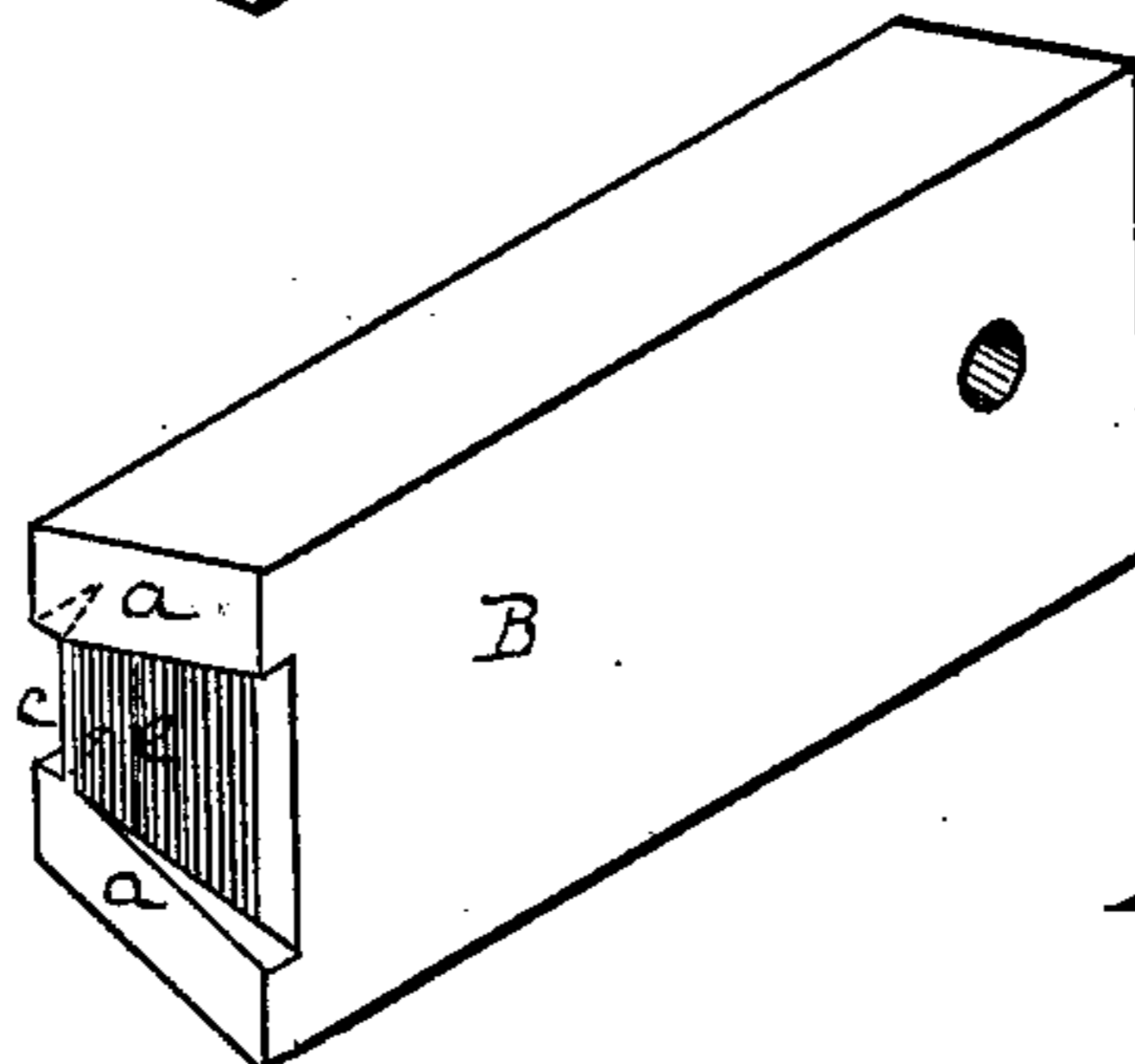
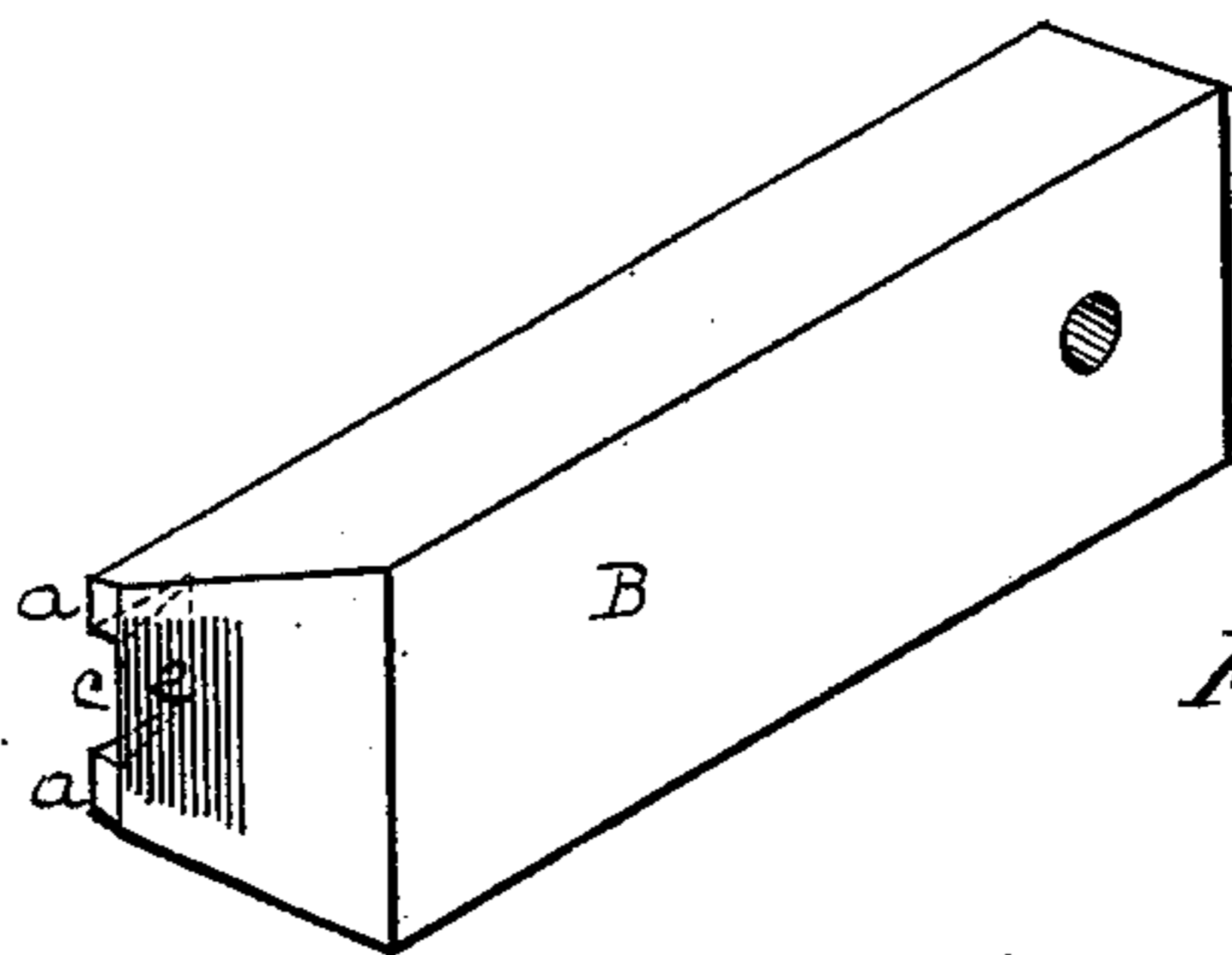
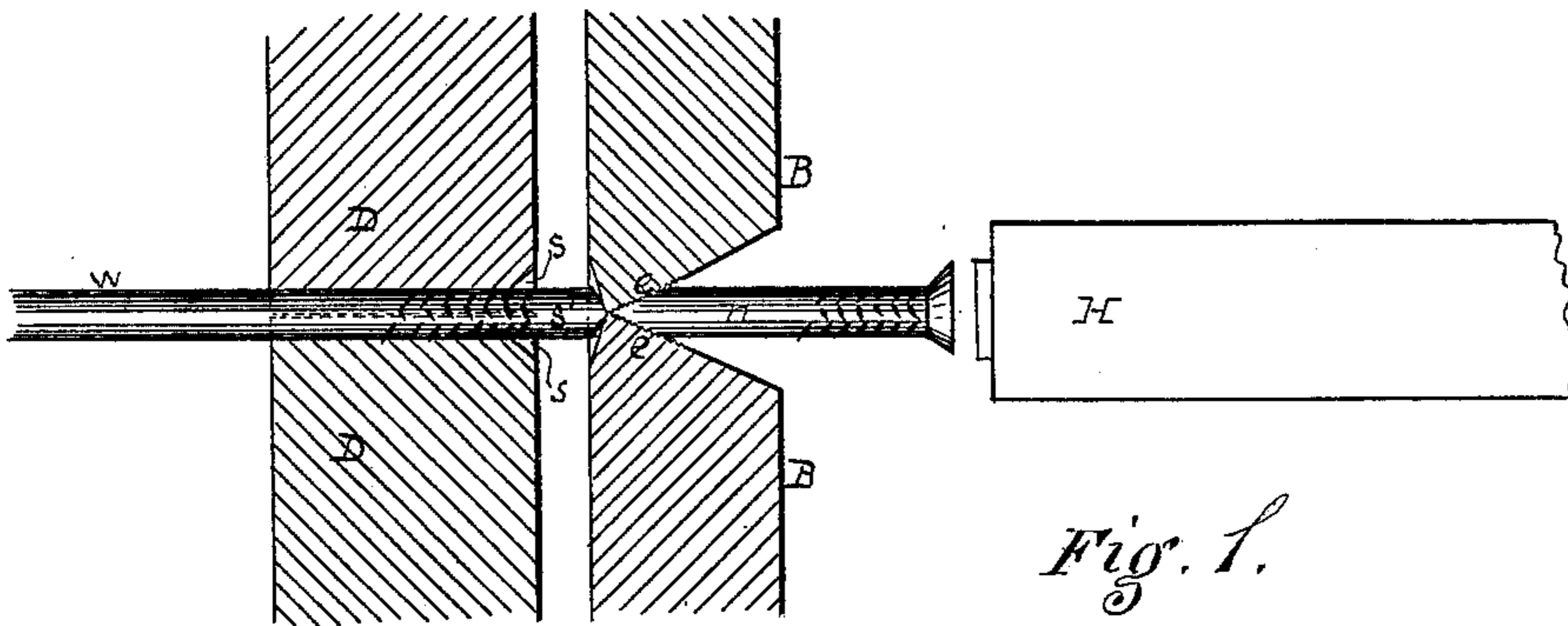


J. M. E. BAACKES.
Nail Pointing Dies.

No. 231,255.

Patented Aug. 17, 1880.



Witnesses
R. H. Whittlesy
C. L. Parker

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UNITED STATES PATENT OFFICE.

JOHN M. E. BAACKES, OF CLEVELAND, OHIO, ASSIGNOR TO THE JP NAIL COMPANY, OF SAME PLACE.

NAIL-POINTING DIE.

SPECIFICATION forming part of Letters Patent No. 231,255, dated August 17, 1880.

Application filed February 19, 1880.

To all whom it may concern:

Be it known that I, JOHN MICHAEL E. BAACKES, of Cleveland, county of Cuyahoga, State of Ohio, have invented or discovered a new and useful Improvement in Nail-Pointing Dies, (Case A;) and I do hereby declare the following to be a full, clear, concise, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—like letters indicating like parts—

Figure 1 is a sectional view, in the plane of the line of feed and lengthwise of the dies, of a pair of my improved pointing-dies, in connection with a pair of gripping and anvil dies and an upsetting or heading die. Fig. 2 is an end perspective view of one of my improved pointing-dies, such as is adapted to the pointing of a nail of the style shown in Fig. 4; and Fig. 3 is a like view of a like die, but adapted to the making of a somewhat longer point, such as is shown in Fig. 5.

My present invention relates to certain improvements in dies for making a chisel-pointed nail from wire, and in which the dies have a reciprocating endwise motion to and from the line of feed in such manner as at each stroke to cut off and point a nail or nail-blank, as the case may be.

As illustrated in the drawings, I have arranged these dies to sever and point the nail as the last step in its manufacture. The particular feature which in such dies I claim herein relates to making the sloping faces of the dies which form the wedge-shaped or chisel points with slight ridges or corrugations or other uneven form, such that they will take and retain a bite or engagement with the sloping faces of the nail-point until it is properly severed, and by virtue thereof will prevent the nail from breaking off from its parent wire as a result of the wedge-like action of the dies, especially as the point of complete severance is approached. In this way a well-finished point is secured.

At *w* I have shown the wire, which is fed in by means of any suitable intermittent feed from the left, and between an ordinary pair of gripping and anvil dies, D, each of which has

a half-round cavity; and if a screw-headed nail, *n*, is desired I make in these gripping-dies a countersink, *s*, into which the projecting end *s'* of the wire may be upset by a header, H, in the making of the head; but other known forms of like devices may be substituted for making other shaped heads.

The dies B, which more particularly illustrate my invention, are mounted in any suitable die-holders, so as, by suitable known devices, to receive each an endwise reciprocating motion to and from the line of feed of the wire *w*.

Each die has, by preference, a square abutment, *a*, of any desired form, such as will prevent the cutting-edges *c* from injury by striking each other with any serious force. The sloping faces *e* of these dies, according as they slope more or less, shape the wedge-like points of the nails. If these faces were made smooth, the strain on the wire in the direction of its length caused by the wedge-like action of the dies B in doing their cutting or severing work would be so great and the frictional resistance of the nail on the smooth sloping faces *e* would be so little that the nail would often be broken from its parent wire before being completely severed. This would result in a rough, ragged, or irregular blunt point, which would be highly objectionable. To prevent this tendency of the nail to fly off or break away before it is properly severed, I make slight corrugations, such as are indicated at *e*, in these sloping faces of the dies, and make them of such depth that as they compress the metal and forge down the wedge-shaped point such corrugations will embed themselves in the sloping faces of the point and take so secure a bite or gripe thereon that the nail which is then being made cannot move endwise and away from its parent wire until it is properly severed. In this way the sloping faces of the chisel end are brought down to a good well-defined point, and a marketable product is secured.

The faces of the dies should be wide enough and the cutting-edges long enough to provide for the slight spread of the metal as it is compressed on opposite sides.

The length of the sloping faces of the nail-

point may be comparatively short, as in Fig. 4, or long, as in Fig. 5, or otherwise varied at pleasure, and dies such as are thus described may be used on any size wire suitable for nail-making.

5 Instead of corrugations, as described, other mode of roughening adapted to give like results may be employed on the faces *c*. Machines adapted to the operation of such dies
10 are so well known in the art that I do not deem it necessary to describe them. Such machines may be of any suitable construction, and additional appliances for doing other parts of the work or additional work may be added at
15 pleasure, as may be desired.

My principal object, it will be understood, is to hold the nail until it is properly severed and while its wedge-like point is being swaged,

and to do this by the same die-faces which do the swaging. Hence

I claim herein as my invention—

1. In a pair of dies adapted to cut and swage a wedge-shape point and having a reciprocating motion to and from the line of feed, the die-faces *c*, roughened or corrugated, substantially as and for the purposes set forth.

2. The dies B, having each an abutment, *a*, a cutting-edge, *c*, and a roughened or corrugated swaging-face, *c*, substantially as set forth.

In testimony whereof I have hereunto set my hand.

JOHN MICHAEL E. BAACKES.

Witnesses:

WM. E. CUSHING,
C. B. BEACH.