

(No Model.)

F. N. GARDNER.
SCREW CUTTING DIE.

No. 250,801.

Patented Dec. 13, 1881.

Fig. 1

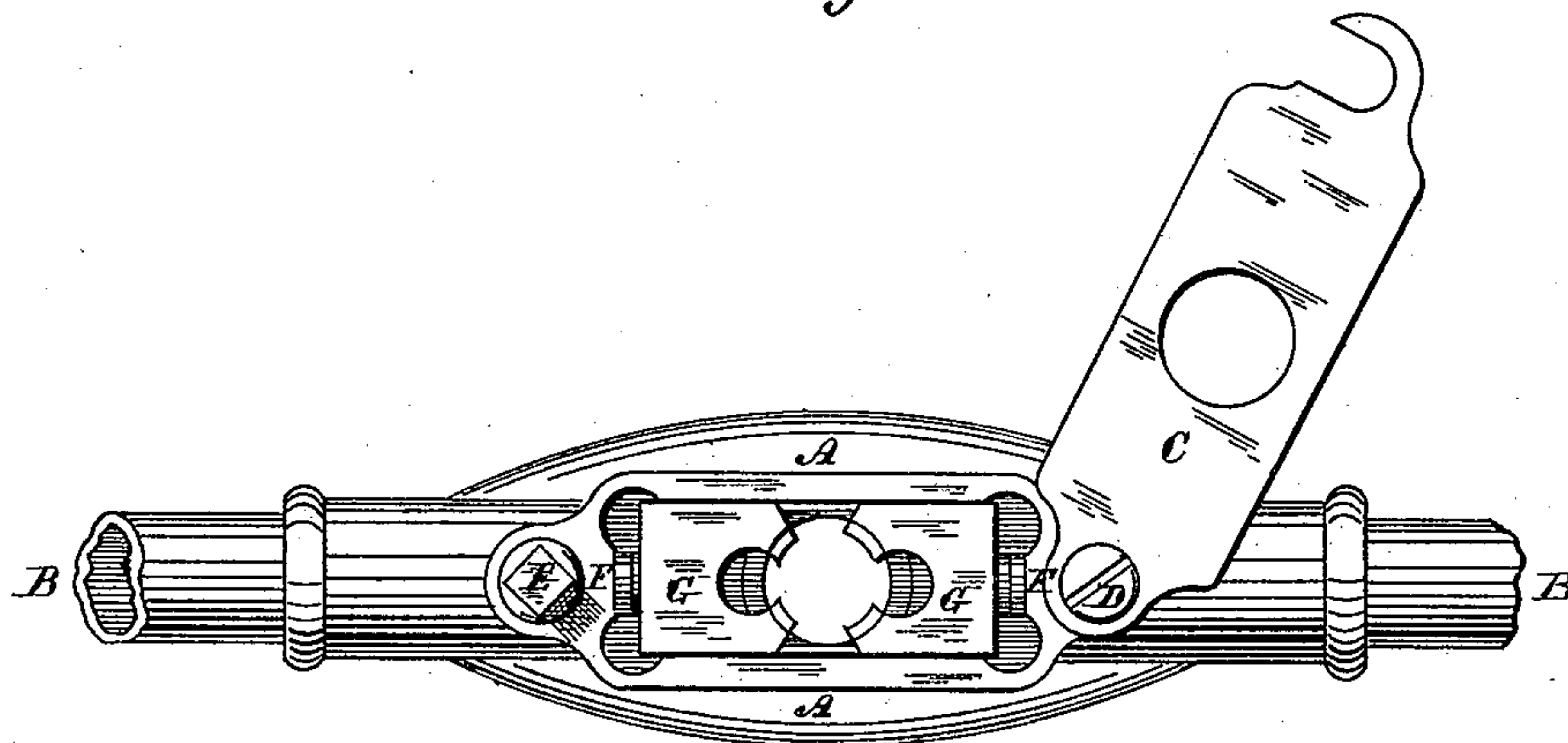


Fig. 2.

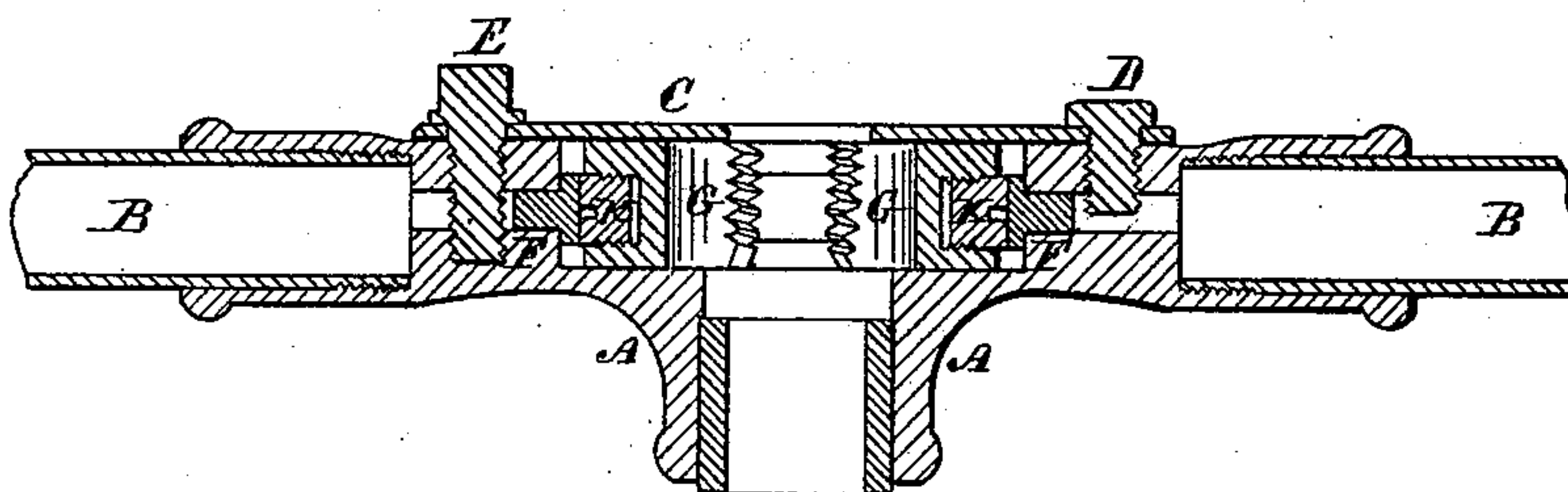


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

FREDERICK N. GARDNER, OF HARTFORD, CONNECTICUT.

SCREW-CUTTING DIE.

SPECIFICATION forming part of Letters Patent No. 250,801, dated December 13, 1881.

Application filed May 2, 1881. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK N. GARDNER, of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and
5 useful Improvements in Screw-Cutting Dies; and I do hereby declare that the following is a full, clear, and exact description thereof, whereby a person skilled in the art can make and use the same, reference being had to the accompa-
10 nying drawings, and to the letters of reference marked thereon.

Like letters in the figures indicate the same parts.

My improvement relates to dies and the die-
15 stock for holding the same, such as are generally used for cutting threads upon screw-bolts.

The object of my invention is to provide a construction by which a series of adjustable dies can be fitted to one die-stock, and any one
20 of which, after it is exactly adjusted, can be removed and replaced without deranging the adjustment, the die-stock being meanwhile used for other dies.

In the accompanying drawings illustrating
25 my invention, Figure 1 is a top view of the die-stock opened in the position for changing the dies, showing also a top view of the dies within. Fig. 2 is a longitudinal section through the die-stock and dies, showing the parts of the
30 dies beyond. Fig. 3 is a side view of the dies removed from the die-stock.

In the drawings the handles of the die-stock are removed or broken off, as being unimportant.

35 A is the body of the die-stock, into which the handles B B are fitted in the customary manner.

C is a cover turning on the pivot D, and hooking under the head of the screw or pin E when
40 shut, to hold it in place. It fits over the receptacle in the die-stock which contains the dies, holds them in when it is shut, and when opened permits of their being readily taken out or replaced.

45 F F are hardened-steel pins permanently fitted into suitable sockets in the body of the die-stock. They receive the thrust of the dies and form the points to which they are adjusted.

G G are the two parts of the die. They are
50 connected by bars H, one on each side, which

are held to the die by means of the screws J, which pass through the bars into the two parts of the die. At one end the screw J passes through a slot, H', so as to allow of a small movement of the two parts of the die, so that
55 they can be adjusted to the proper distance apart to cut a thread of an exact gage. The bars H hold the two parts of the die together when removed from the die-stock.

K K are screw-plugs fitting into threaded
60 sockets in the parts G G of the die. They are in such a position as to come exactly opposite the pins F when the die is placed in the stock. These screw-plugs serve to adjust the position of the two parts G, so that when they rest
65 against the pins F the die shall be in exactly the proper position to cut the desired size of thread. The opening of the die is changed by turning the screw-plugs in or out, as may be
70 required. When once set they do not require to be changed so long as the same opening between the two parts of the die conforms to the exact gage. If, on account of wear, or otherwise, the dies require changing, it is effected
75 by means of the plugs K. Each pair of dies which is fitted into the same die-stock is furnished with the adjusting-screws K, and thus become independent of any adjustment of the die-stock itself, and however often they may
80 be removed and replaced always come to the same exact position when in use, and cut threads of the same exact gage.

The body of the die-stock and the cover are perforated for the passage of the bolt in the customary manner, and the whole implement
85 is used in the same manner as ordinary die-stocks.

What I claim as my invention is—

1. The combination of the dies having the screw-plugs K with the die-stock having the
90 fixed pins F, substantially as and for the purpose described.

2. The combination of the parts G G of the die, and the side bars, H, having a small longitudinal movement, and connecting the two
95 parts of the die, substantially as described.

FREDERICK N. GARDNER.

Witnesses:

THEO. G. ELLIS,
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