

P. EVERITT.  
Screw-Stocks.

No. 210,106.

Patented Nov. 19, 1878.

Fig. 3

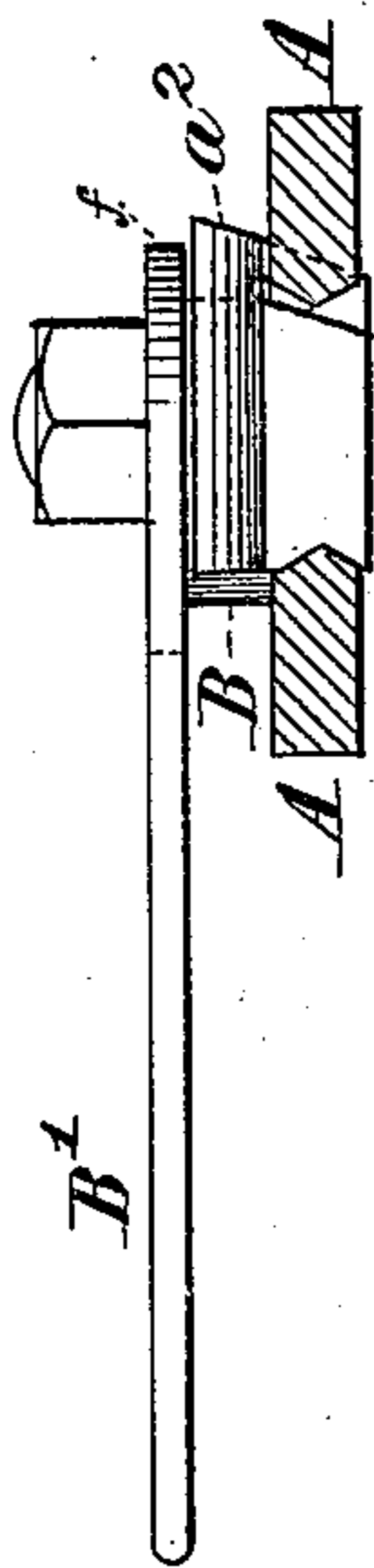


Fig. 1

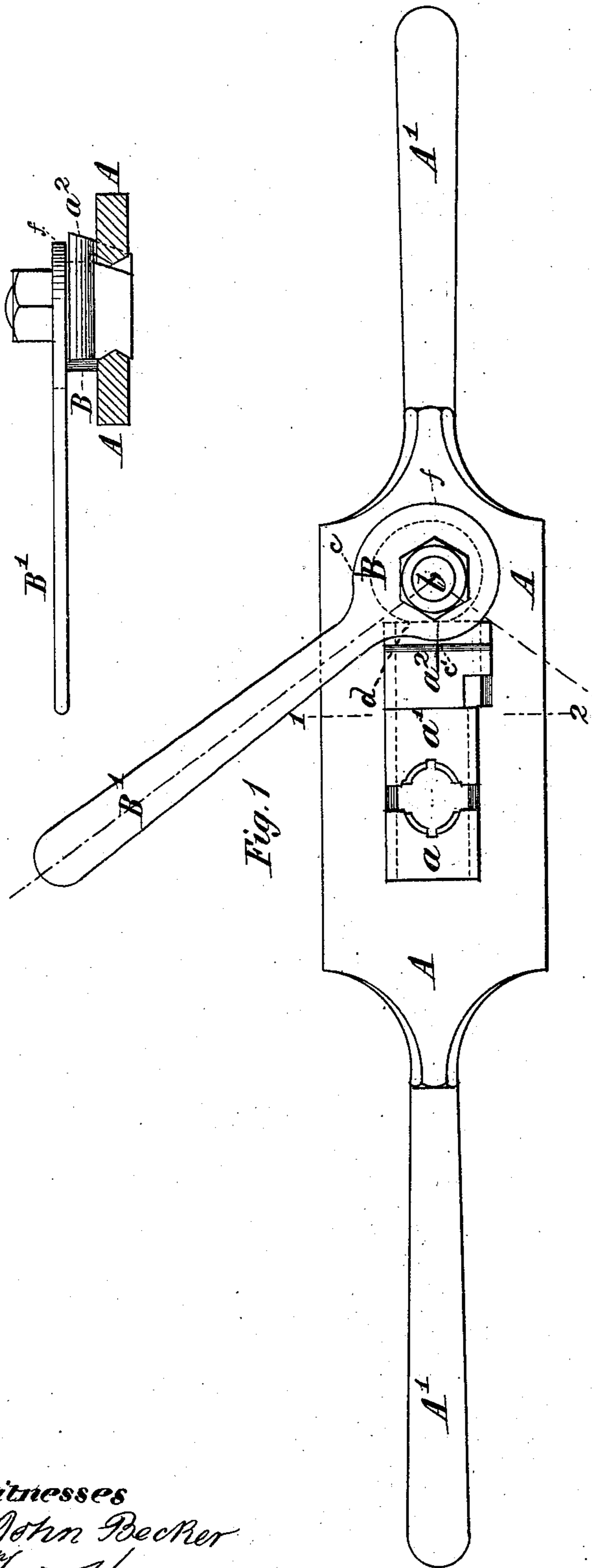


Fig. 2



witnesses

John Becker  
J. D. Haynes

Inventor

P. Everitt  
by his Attorneys  
Brown & Allen

# UNITED STATES PATENT OFFICE.

PERCIVAL EVERITT, OF GREAT RYBURGH, ASSIGNOR OF ONE-HALF HIS  
RIGHT TO FRANK WHEELER & CO., OF LONDON, ENGLAND.

## IMPROVEMENT IN SCREW-STOCKS.

Specification forming part of Letters Patent No. **210,106**, dated November 19, 1878; application filed  
October 3, 1878; patented in England, April 16, 1878.

*To all whom it may concern:*

Be it known that I, PERCIVAL EVERITT, of Great Ryburgh, in the county of Norfolk, England, have invented certain Improvements in the Construction of Screw-Stocks, of which the following is a specification:

The object of my invention is to facilitate the various operations of screw-cutting with stocks and dies, to provide in screw-cutting dies means whereby the dies may be readily removed from the stocks without detaching any caps, plate, screws, or in fact any part of the stocks or devices used to hold the dies; further, to provide at the same time means whereby it may be known at any instant of time, and without having kept any record of the movement of the die-tightening device, when the bolt to be threaded is cut to the proper depth. A further object is to enable the operator to set up the dies while the stocks are in motion and at work without the aid of detached levers or wrenches.

The invention consists in providing the stocks with a pivoted lever, having on its pivoted end a projection the edge or face of which is nearly a true involute curve, which, as the lever is moved in the proper direction on its pivot, impinges against and moves the upper die or a suitable removable pressing-piece arranged above said die in the stocks, the form of this curved projection or cam being such that the pressure due to the cut does not cause the lever to slacken back, as is the case with eccentric movements during first cuts taken upon the bolt being threaded, and there being provided on the outer surface of this cam or projection, or on a flange projecting beyond and following the general contour of said cam, a line, mark, or indentation, and upon the upper die or pressing-piece a similar line, mark, or indentation. Whenever these lines, marks, or indentations, respectively, under any circumstances, are brought to coincide, the dies are closed to the proper extent. The side of the lever opposite to the cam or projection is so formed that when moved to the opening in the stocks sufficient space is left clear above said opening to permit the instantaneous removal of the dies.

In the accompanying drawing, Figure 1 is a

side view of the screw-stock, showing the position of the acting parts when the work is about to be inserted. Fig. 2 is an edge view of the same, and Fig. 3 is a cross-section taken in the line 1 2 of Fig. 1.

In these views, A is the screw-stock, furnished with a pair of handles, A', as usual. The stock is made with a rectangular slot to receive the threading-dies  $a^1$ , which are held in place by guides formed on the side walls of the slot. The die  $a$  is bedded in the stock, and the die  $a^1$  is free to slide therein under the pressure of a cam, B, which is pivoted to the stock at  $b$ , slightly out of line with the center thereof, and its pivoted end is formed into a cam. This cam bears upon a flanged projection on the side of a pressing-piece,  $a^2$ , which is interposed between the cam and the sliding die  $a^1$ . Its insertion in the opening in the screw-stock is facilitated by the rabbeting of the opening at one side and the chamfering of the rabbet to correspond with the rabbeted side of the pressing-piece  $a^2$ . This pressing-piece may, however, be dispensed with in stocks of small sizes—say up to five-eighths of an inch—it being used in conjunction with a flange on the cam in order to obtain a central thrust upon the upper die or the pressing-piece. When it is dispensed with the cam bears directly upon the top edge of the die, which may have a lip or flange turned outward at its upper edge, and the die may be as long as would be both a die and separate pressing-piece, so that in this case the die and pressing-piece would be virtually formed in one piece. The die-opening should be rabbeted and chamfered, as before described, sufficiently to permit the ready removal and insertion of the die so increased in length.

When the lever B<sup>1</sup> is moved from the drawn position of Fig. 1 to the position indicated by the dotted line B<sup>2</sup>, the cam B is caused to advance the sliding die to its work, the increasing radius of the involute cam being thereby brought into action. The form of this cam is such that the pressure due to the cut does not cause the lever to slacken back, as is the case with eccentric movements during the first cuts taken upon the bolt being threaded. Upon the upper surface of this cam or curve, or on a

flange, *f*, projecting beyond and following the general contour of said cam or curve, is provided a line, mark, or indentation, *c*; and upon the face of the upper die or the pressing-piece, as the case may be, is a similar line, mark, or indentation, *c'*, and whenever under any circumstances these two lines coincide, the dies are closed to the proper extent.

When the dies are set up to the work and the stock is being moved around the work, the operator will, by a slight pressure on the handle-*lever B<sup>1</sup>*, feed the movable die forward until the largest radius of the cam is brought into action. The workman will thus know, by observing the coincidence of the two lines, marks, or indentations, that the screw-thread is brought to the required gage. The edge of the flange *f* and the edge *d* of the lever opposite the cam or projection are so formed that when moved to the opening in the stocks a suitable space above the said opening is left free, so as to permit the instantaneous removal of the dies or pressing-piece.

By simply throwing the cam-lever backward, pressure is taken off the dies, and the work may be instantly released and a fresh screw-blank readily inserted, and the operation of threading the blank may then be repeated, as above explained.

By the use of this arrangement of screw-stock, it will be readily understood that the

operation of screw-cutting may be greatly expedited.

I am aware that stocks have been provided with screws for pressing up the dies, and also that they have been furnished with levers terminating in pivoted eccentrics for the same purpose, and I do not claim either of these devices in combination with a stock.

Having now set forth the nature of my invention, and explained the manner of carrying the same into effect, I wish it to be understood that I claim—

1. The pivoted lever *B<sup>1</sup>*, having the approximately-involute cam or curve *B*, provided with the line, mark, or indentation *c*, and the plain side or edge *d*, in combination with the stock having the removable marked die-pressing piece, constructed substantially as described, next to said lever, substantially as and for the purpose set forth.

2. The lever *B<sup>1</sup>*, having the cam or curve *B*, in combination with the stock having the removable die-pressing piece, constructed substantially as described, next to said lever, essentially as set forth.

Dated the 6th day of September, 1878.

PERCIVAL EVERITT.

Witnesses:

H. K. WHITE,  
A. T. BISHOP.