

E. SAUNDERS.

SCREW-CUTTING DIE-STOCK.

No. 176,694.

Patented April 25, 1876.

Fig. 1.

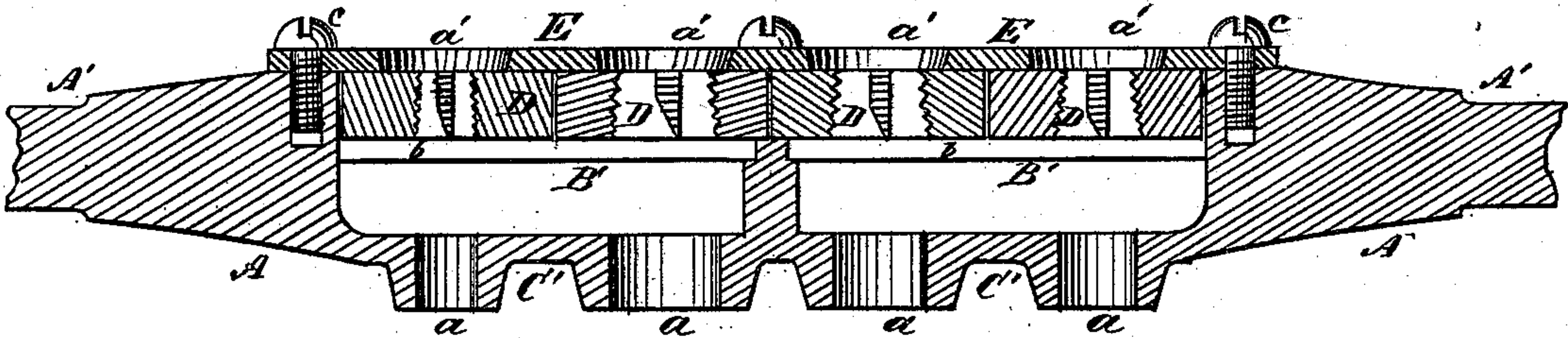


Fig. 2.

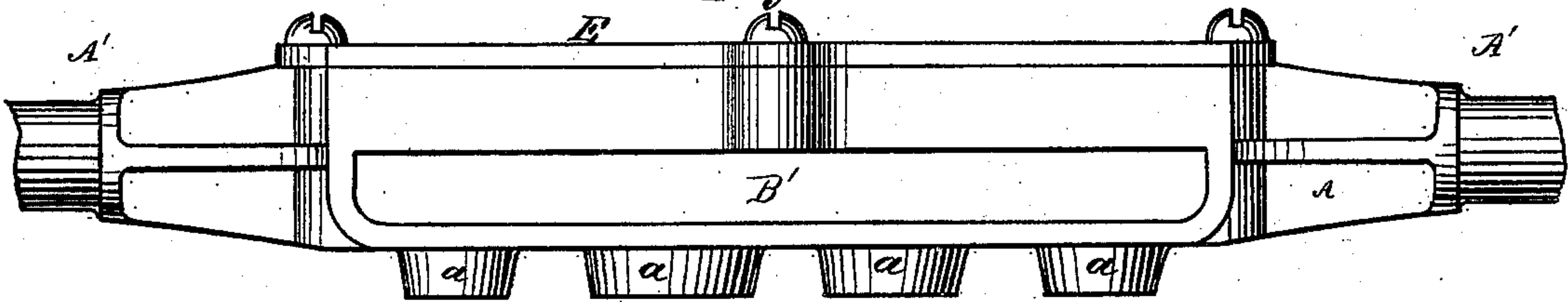


Fig. 3.

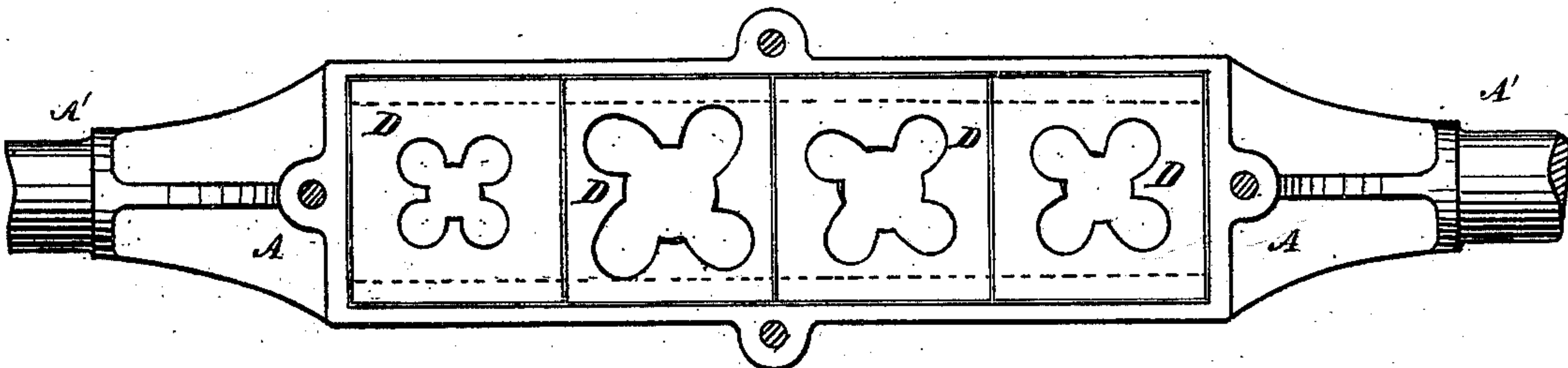


Fig. 4.

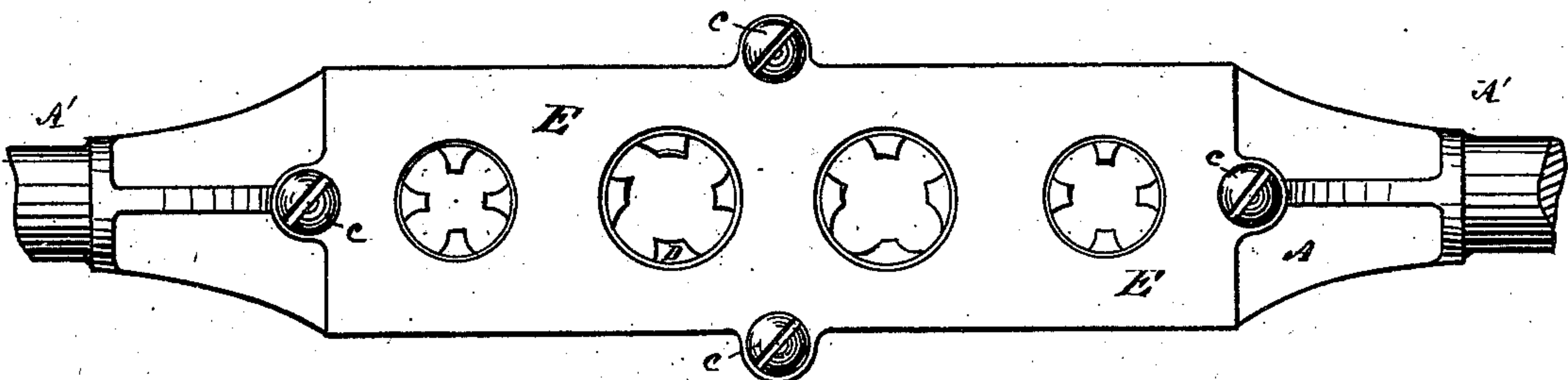
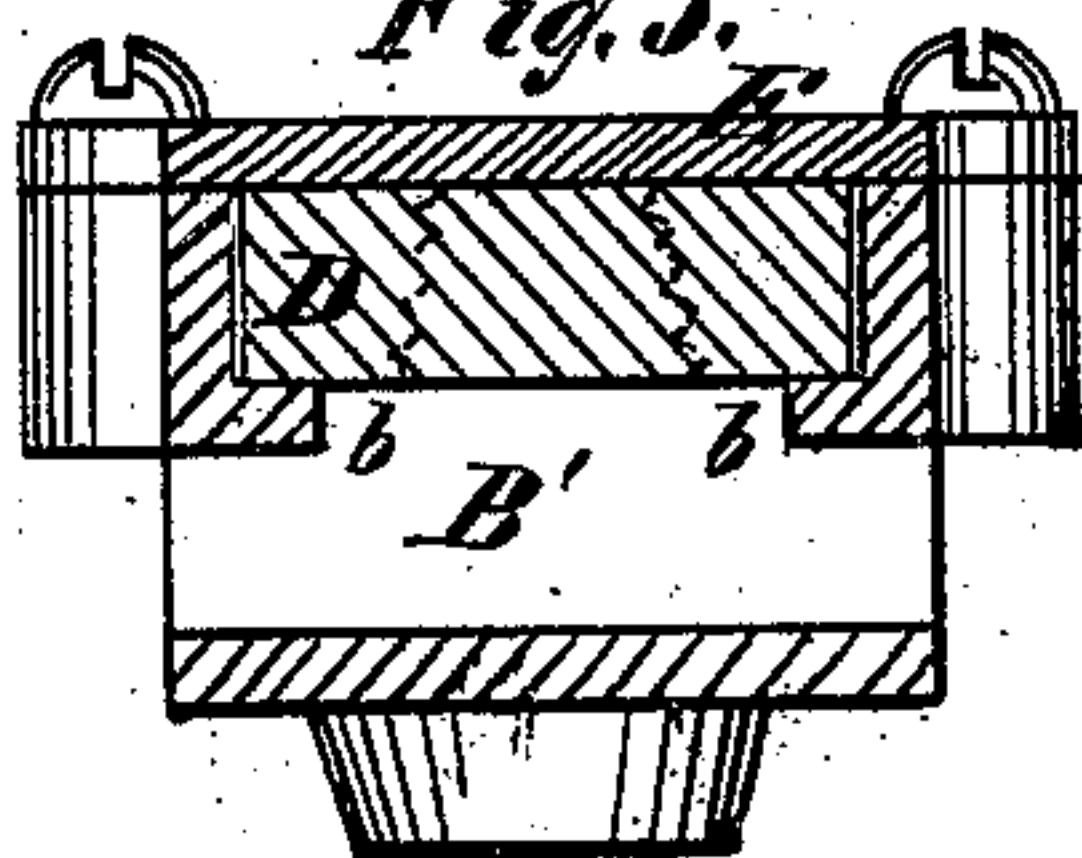


Fig. 5.



Witnesses:

Henry Eichling.
Edward Holly.

Inventor:

Ervin Saunders
by James A. Whitney
his Atty.

UNITED STATES PATENT OFFICE.

ERVIN SAUNDERS, OF YONKERS, NEW YORK, ASSIGNOR TO D. SAUNDERS' SONS, OF SAME PLACE.

IMPROVEMENT IN SCREW-CUTTING DIE-STOCKS.

Specification forming part of Letters Patent No. **176,694**, dated April 25, 1876; application filed April 3, 1876.

To all whom it may concern:

Be it known that I, ERVIN SAUNDERS, of Yonkers, in the county of Westchester and State of New York, have invented an Improvement in Die-Stocks for Threading Pipes, of which the following is a specification:

This invention relates to that class of die-stocks for threading pipe which are constructed with a number of dies of different sizes, in order that pipes of different diameters may be threaded with one and the same implement. In such die-stocks, as ordinarily made, all the dies are made in one single piece, and as a consequence, when one of them is worn out or broken, the entire piece, including all the other dies formed therein, is rendered useless.

The object of my invention is to avoid this loss by providing an implement in which the wearing out or breaking of one of the dies shall work no injury or detriment to any of the others. To this end my invention comprises a novel combination of a system of separately-constructed dies of different sizes, a stock provided with lateral shoulders or ledges for receiving and supporting said system of separately-formed dies, and a covering-plate attached to the stock by screws, and arranged in such relation with the hereinbefore-specified shoulders or ledges and the sides of the stock as to securely retain the system of separately-formed dies in proper relation with each other, and in solid and firm position for use, as occasion may require, in threading pipes of different diameters.

By this novel construction of the die-stock the implement may be used for threading pipes of various diameters with the same facility and convenience as the old or ordinary die-stock hereinbefore mentioned, while should one of the dies become worn out or broken, it may be readily removed and replaced without at all affecting any of the others.

Figure 1 is a central longitudinal section of a die-stock for threading pipes made according to my invention. Fig. 2 is a side view of the same. Fig. 3 is a plan view with the top or holding plate removed. Fig. 4 is a plan view of the implement complete, and Fig. 5 is a transverse section of the same.

A is the stock, provided with handles at the ends A', in the usual or any suitable manner. B' indicates the interior or chambered portion of said stock, and C' the bottom or under side thereof. Along this bottom C', in line with each other, are the circular throats *a*, of varying diameters—in other words, adapted to the passage through them of the different sizes of pipes to be threaded. D are threading-dies, square in their circumferential contour, as shown more fully in Fig. 3. These dies D are formed separate from each other, and each is placed with its axis coincident with the axis of one of the throats *a*. At each side of the chamber B' is a longitudinal shoulder or ledge, *b*. It is on these ledges *b* that the dies D are placed side by side in regular succession, with their upper surfaces flush with the upper sides and ends of the stock A, as represented in Figs. 1 and 5. E is a top plate or holding-plate, placed over the dies D, and firmly attached to the upper side of the stock A by screws *c*. Provided in this plate E, over and coincident with the central openings of the dies D, are openings *a'*.

It will be observed that the dies D, being placed upon the shoulders or ledges *b*, and kept from lateral or endwise movement by the sides and ends of the chamber B', and firmly confined or held down upon the ledge or shoulder *b* by the top plate E, are rigidly and securely held in place, so that a pipe thrust into and through one or the other of the throats *a*, according to the diameter of the pipe to be threaded, to the central opening of the coincident die D, may be threaded by the operation of the implement in the same manner as with an implement of the old or ordinary construction, hereinbefore referred to, the coincident opening *a'* in the plate E permitting the threaded end of the pipe to pass out from and beyond the die D, as occasion may require.

It will be especially observed that by simply removing the top or holding plate E any one of the dies D may be removed and replaced by another of the same external size and configuration, and, by replacement of the plate E, be firmly confined in place for use; so that the wearing out or breaking of one of

the dies involves no injury or detriment to any of the others, a very great economy in the practical use of the implement being by this means secured.

What I claim as my invention is—

In a die-stock for threading pipes, the system of separately-formed dies *D*, for cutting different diameters of pipe, in combination with the longitudinal ledges or shoulders *b*, provided at the sides of the chamber *B'* of the

stock *A*, and the top or holding plate *E*, fixed to the stock *A* by the screws *c*, the whole constructed and arranged for use and operation substantially as and for the purpose herein set forth.

ERVIN SAUNDERS.

Witnesses:

ALEX. SAUNDERS,
WM. RILEY.