898,956.

R. BARTHOLOMÄUS.

DIE STOCK.

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Patented Sept. 15, 1908.

Fig. 1.

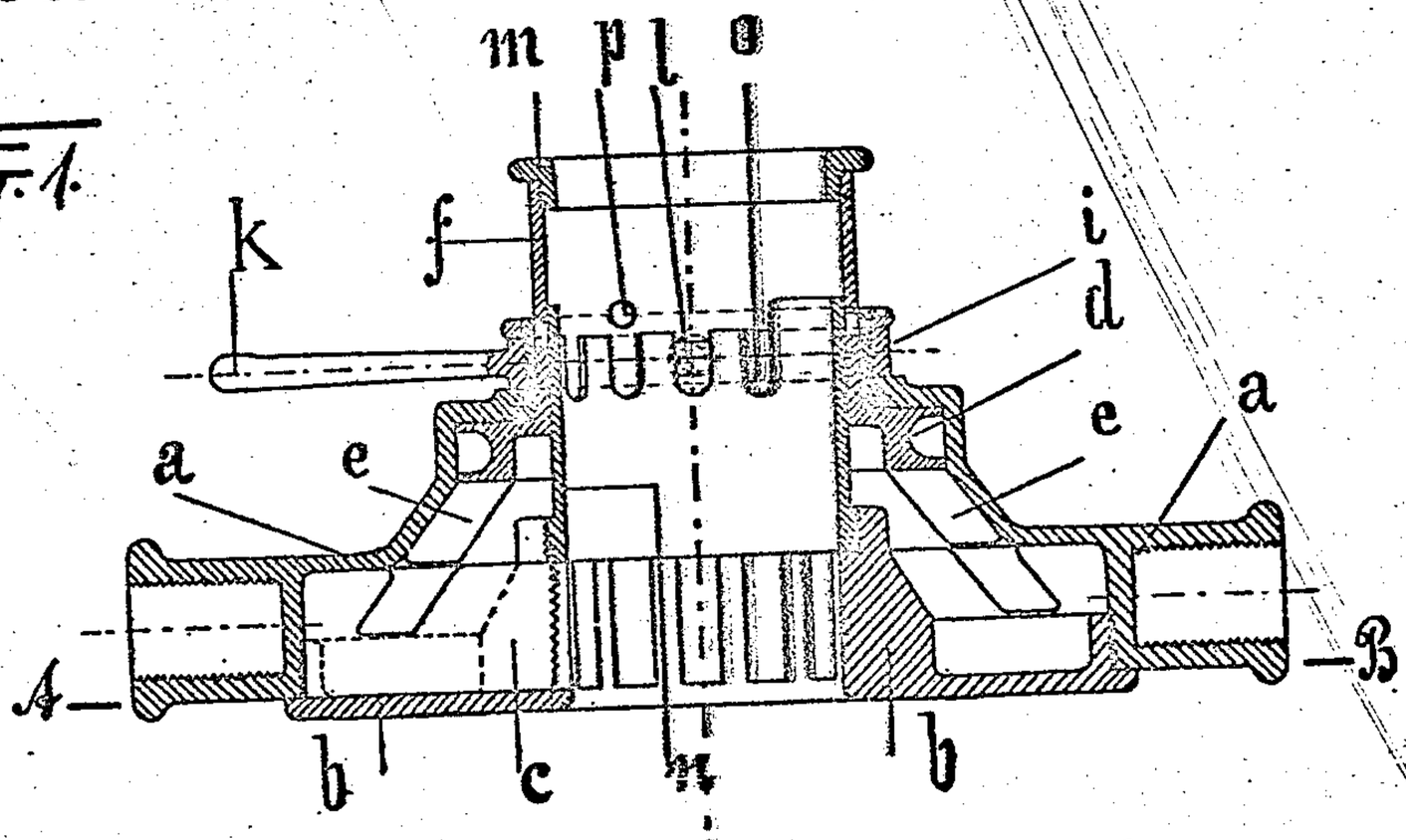


Fig. 2.

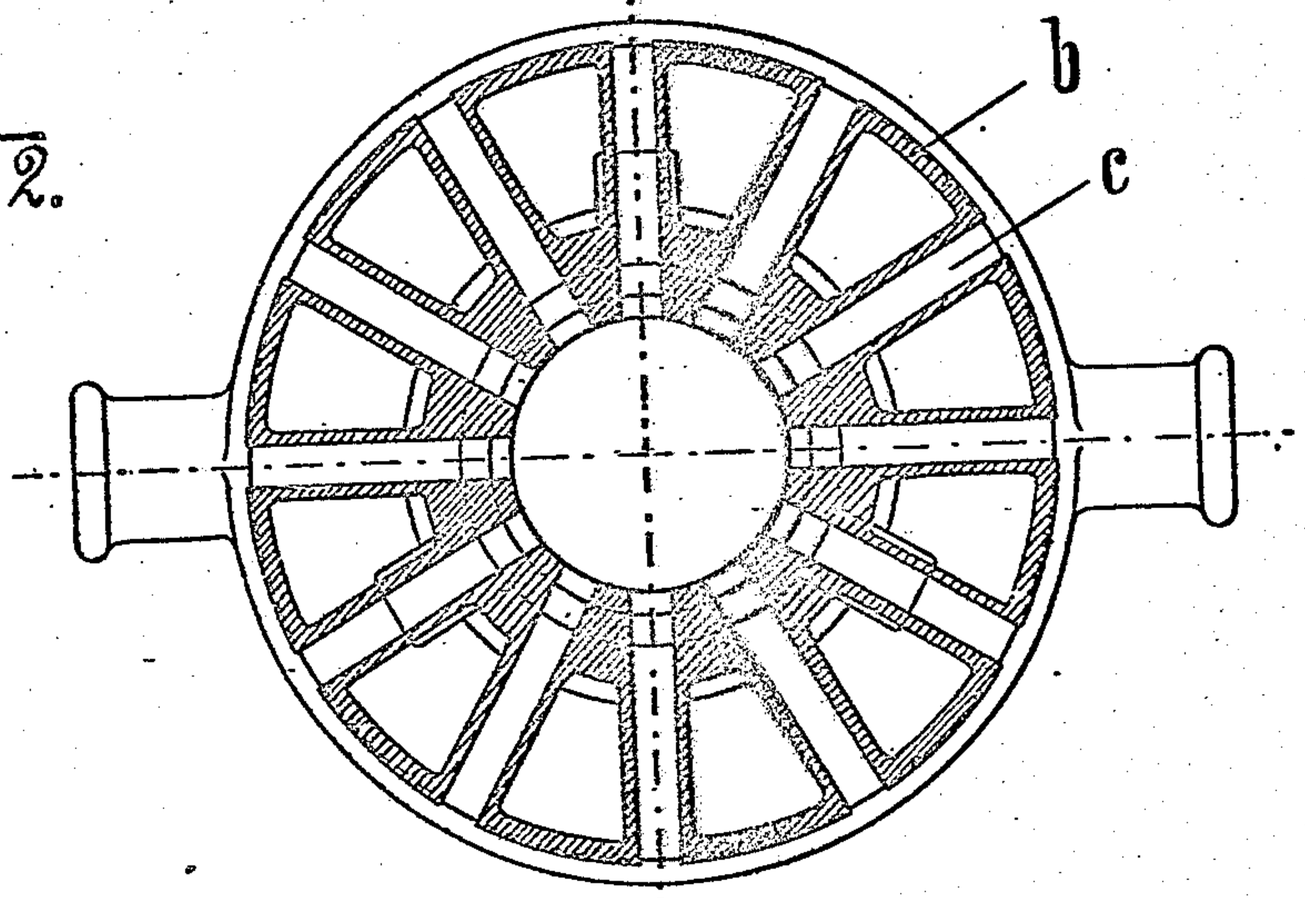
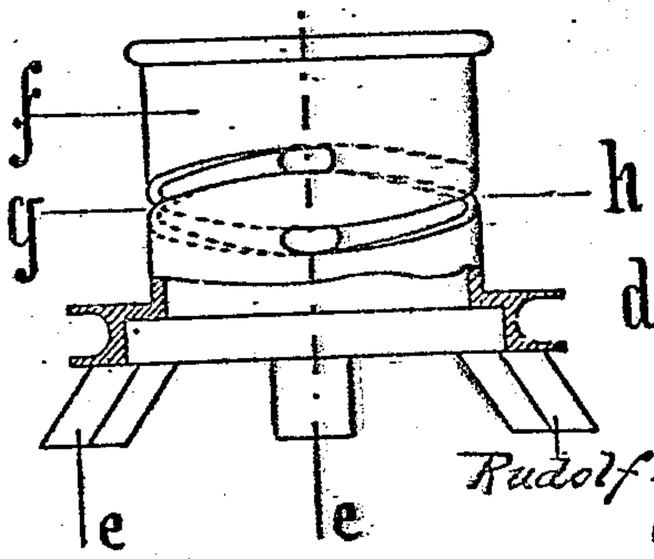


Fig. 3.



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UNITED STATES PATENT OFFICE

RUDOLF BARTHOLOMÄUS, OF DRESDEN, GERMANY.

DIE-STOCK.

No. 898,956. Specification of Letters Patent. Patented Sept. 15, 1908.

Application filed October 3, 1907. Serial No. 395,723.

To all whom it may concern:

Be it known that I, RUDOLF BARTHOLOMÄUS, a subject of the German Emperor, residing at Dresden, Saxony, German Empire, have invented certain new and useful Improvements in Die-Stocks, of which the following is a specification.

My invention relates to improvements in stocks and dies employed in screw cutting.

By means of my new tool threads of various sizes can be cut without the dies having to be removed each time from the stock and replaced by others.

My invention is illustrated in the accompanying drawing, in which—

Figure 1 is a vertical section through the tool. Fig. 2 is a section on the line A—B of Fig. 1. Fig. 3 is a part sectional view of the device employed for setting the dies.

In the casing or box *a* of the stock there is screwed a disk *b* provided with radial guide-grooves to receive the dies *c*, which slide therein and have inclined recesses *s*. The box *a* also contains a collar *d*, which presents three splayed feet *e* and carries above a guide-socket *f*. The latter is furnished with two inclined grooves *g*, *h*, each running half way round the socket. On the top of the box *a* there is a ring *i*, capable of being turned horizontally to and fro by the handle *k*. This ring has two inwardly projecting pins, one of which *l* is shown in Fig. 1. This pin *l* engages in the groove *g* of the socket *f*, while the twin pin (not shown in the drawing) takes into the other groove *h*. It is obvious that on rotation to and fro of the ring *i* by means of the handle *k*, the socket *f* with its collar *d* will be moved up and down, the extent of motion depending upon the inclination of the grooves *g*, *h*. Screwed into the top of the socket *f* there is a ring *m*, by turning which the collar *d* can be so set that its feet *e* come above any desired group of dies *c*. When the collar *d* is now caused to descend, by rotation of the ring *i* by its handle *k*, the feet *e* enter the inclined recesses *s* provided in the dies *c* and force the latter inward, so as to bring them into their operative screw cutting position.

To enable accurate adjustment of the collar *d*, a guide-tube *n* is provided in the box *a*. This tube *n* fits into the socket *f* and is furnished at its upper edge with a series of notches *o* corresponding in number to the number of kinds of threads to be cut. The particular tool shown has four sets of three dies each for cutting four different threads of different pitch, wherefore the tube *n* has four notches *o*. From the inner wall of the socket *f* there projects a stud *p*, adapted to fit the notches *o*. Thus if the tool be set for cutting a certain thread, the collar *d* must be rotated by the ring *m* until the stud *p* arrives above the notch *o* which corresponds to the thread in question. On rotation of the ring *i* by turning the handle *k* the stud *p* then slips into this notch *o* and thus holds the collar *d* in a definite position. When one set of dies is adjusted for work, the other sets remain in their outer, inoperative position, the dies being fitted into the radial guide-grooves with sufficient frictional contact to hold them against inward sliding, especially when in operation, there being also at that time a slight centrifugal action to reinforce said frictional contact. The dies having been thus adjusted, the tool can be employed like any ordinary screw stock.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States is—

1. A die stock, comprising a radially perforated box, a plurality of sets of dies slidable in the perforations thereof, said dies having beveled portions, a collar having splayed feet to engage the beveled portions of the dies and mounted in the box to move axially, said collar being also rotatably adjustable to engage selectively with different sets of dies and means for moving the collar axially.

2. A die stock comprising a radially perforated box carrying an upright tube with notches in its upper edge, a plurality of sets of dies slidable in the perforations of the box, said dies having beveled portions, a collar having splayed feet to engage the beveled portions of the dies and an inward projection to engage the notches of said tube, said collar being mounted to move axially and being rotatably adjustable to engage selectively with different sets of dies, and means for moving the collar axially.

3. A die stock comprising a radially perforated box carrying an upright tube with notches in its upper edge, a plurality of sets

of dies slidable in the perforations of the box, said dies having beveled portions, a collar having splayed feet to engage the beveled portions of the dies, an inward projection to engage the notches and an upper tubular extension having spirally located slots, a rotary ring encircling the tubular extension and provided with inward projections to engage in said slots, and means for rotating the ring whereby the collar is axially moved.

In testimony whereof I affix my signature in presence of two witnesses.

RUDOLF BARTHOLOMÄUS.

Witnesses:

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CLARE SIMON.