

G. HOLZAPFEL.
 MOLDER'S STAMPING TOOL.
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1,052,482.

Patented Feb. 11, 1913.

Fig. 2.

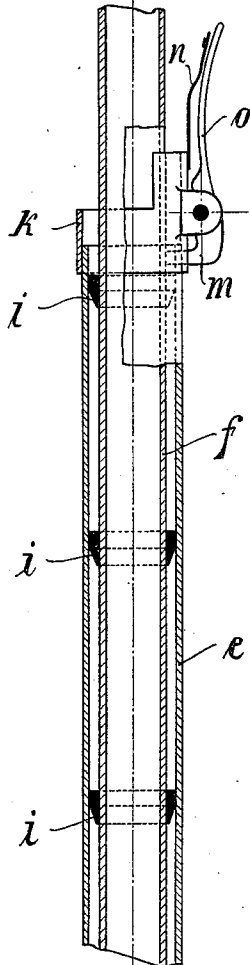
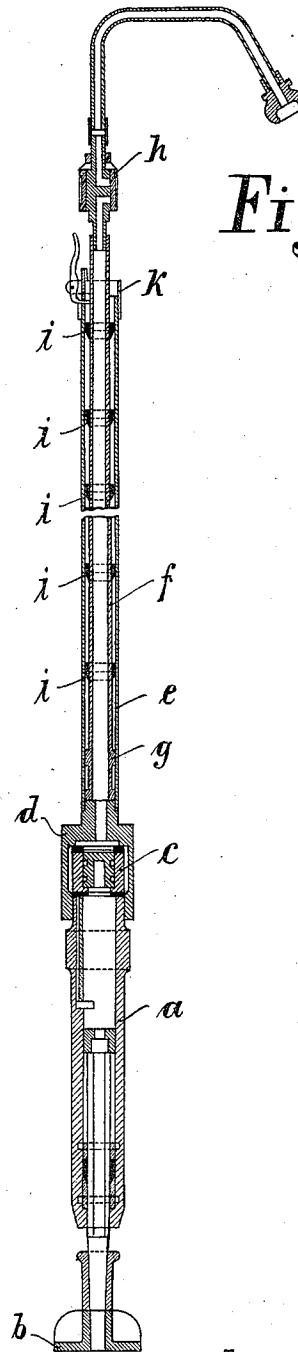


Fig. 1.



Witnesses:
Chas J Wright
Alfred Hunkeler

Inventor:
Georg Holzappel

UNITED STATES PATENT OFFICE.

GEORG HOLZAPFEL, OF ESSEN-ON-THE-RUHR, GERMANY.

MOLDER'S STAMPING-TOOL.

1,052,482.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORG HOLZAPFEL, a subject of the King of Prussia, and residing at Kanonenstrasse 5, Essen-on-the-Ruhr, Rhenish Prussia, Germany, have invented certain new and useful Improvements in Molders' Stamping-Tools, of which the following is a specification.

My invention is adapted to all classes of molders' tools, but for the purpose of illustration, I have selected a pneumatic driven stamping tool, such as are used for stamping molds and cores in founders' and concrete tube works.

Heretofore, molders' tools have been made of certain prescribed lengths, which length cannot be increased or diminished, consequently a molder in stamping a deep mold must first use a very long tool and as the mold is filled, must change the position of his hands on the tool or substitute a tool of shorter length, as the mold is filled. In the case of deep and narrow molds, a molder is forced to hold a stamping tool of this character in an inclined position.

The object of my invention is to eliminate these objections and provide a stamping tool which is adjustable so as to provide a tool of different lengths in one and the same instrument.

In the embodiment shown in the drawings, the tool comprises an outer tube within which a second tube is slidably mounted with air-tight engagement, and means for locking said tool in its different adjusted lengths; and my invention further consists of the parts and combination of parts as will be hereinafter more fully pointed out.

Figure 1 is an axial sectional view of a stamping tool embodying my invention; and Fig. 2 is an enlarged detail view, with parts broken away.

a represents the stamping cylinder in which the piston *b* is mounted and provides for movement of a suitable stamping tool.

c is a regulating valve.

d is a sleeve or coupling secured to the upper end of the cylinder *a* and provided with a reduced upper portion on which the tube *e* is secured. The sleeve *d* is provided with a central bore leading to the regulating valve *c*. A second tube *f* is slidably mounted within the tube *e* and provided at its lower end with a packing ring or piston *g* having an air-tight sliding engagement with the inner face of the tube *e*. This

inner tube *f* is provided with rings *i* which are secured thereto and which have a neat sliding fit within the tube *e* and are provided with beveled faces to be hereinafter referred to. These rings *i* are placed in certain predetermined positions throughout the length of the tube *f* and serve to determine the length of the tool.

On the upper end of the tube *e* is secured a collar *k* provided with a lug to which is pivoted a locking dog *m* having an operating handle *o* and a spring *n*. The collar *k* and the tube *e* are provided with an opening *m'* through which the nose of the latch *m* projects so that said nose may be positioned normally in the space between the tubes *e* and *f*, where it is adapted to engage the upper edge of the ring *i* to lock the tubes in adjusted position.

The stamping tool having been set to work, compressed air will be admitted to the tube *f* through the valve *h* thence through the central bore and the sleeve *d* into the regulating valve *c*, whereupon the tool is operated in its work. When the compressed air is admitted, there will be a tendency for it to work its way under the piston *g* and project the tube *f* axially, but this tendency is resisted by reason of the fact that the nose of the latch *m* is in engagement with the upper face of one of the rings *i*.

Should it be necessary or desirable to extend the length of the tool, the latch *m* is withdrawn from engagement with the ring *i*, whereupon the tube *f* may be slid axially in the tube *e* until a desired length is obtained, whereupon the latch is released and again snaps into position in engagement with one of the rings *i*. Should it be desired or necessary to shorten the length of the tool, this can be done without stopping the movement of the tool by simply pressing upon the upper end of the tube *f*, whereby it may be telescoped within the tube *e*, the nose of the lug *m* being depressed by the bevel or cam face of each of the rings *i* so as to permit said rings to pass the lock in the telescoping movement of the tube *f*, the spring lock snapping to locked position each time a stop *i* passes it, so that there is no danger of the compressed air blowing the inner tube *f* out of the outer tube *e*.

As stated, the tool may be lengthened or shortened while in operation to adapt it to the varying depths of the mold.

I claim:—

1. A molder's tool comprising several telescopic sections, means locking said sections against relative movement in one direction and permitting relative movement 5 in the other direction.
2. In a molder's tool, the combination with telescopic sections, a stop secured to the inner section and a lock secured to the 10 outer section, constructed to engage the stop of the inner section to limit relative movement between the sections.
3. In a molder's tool, the combination

with telescopic sections, a stop secured to the inner section having an upper flat face 15 and a lower beveled face, and a lock mounted on the outer section and constructed for engagement with the stop, whereby the lock locks the sections against relative movement in one direction and permits relative move- 20 ment in the opposite direction.

GEORG HOLZAPFEL. [L. S.]

Witnesses:

CHAS. J. WRIGHT,
ALFRED HENKEL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."