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TOOL FOR CEMENT WORK.  
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985,074.

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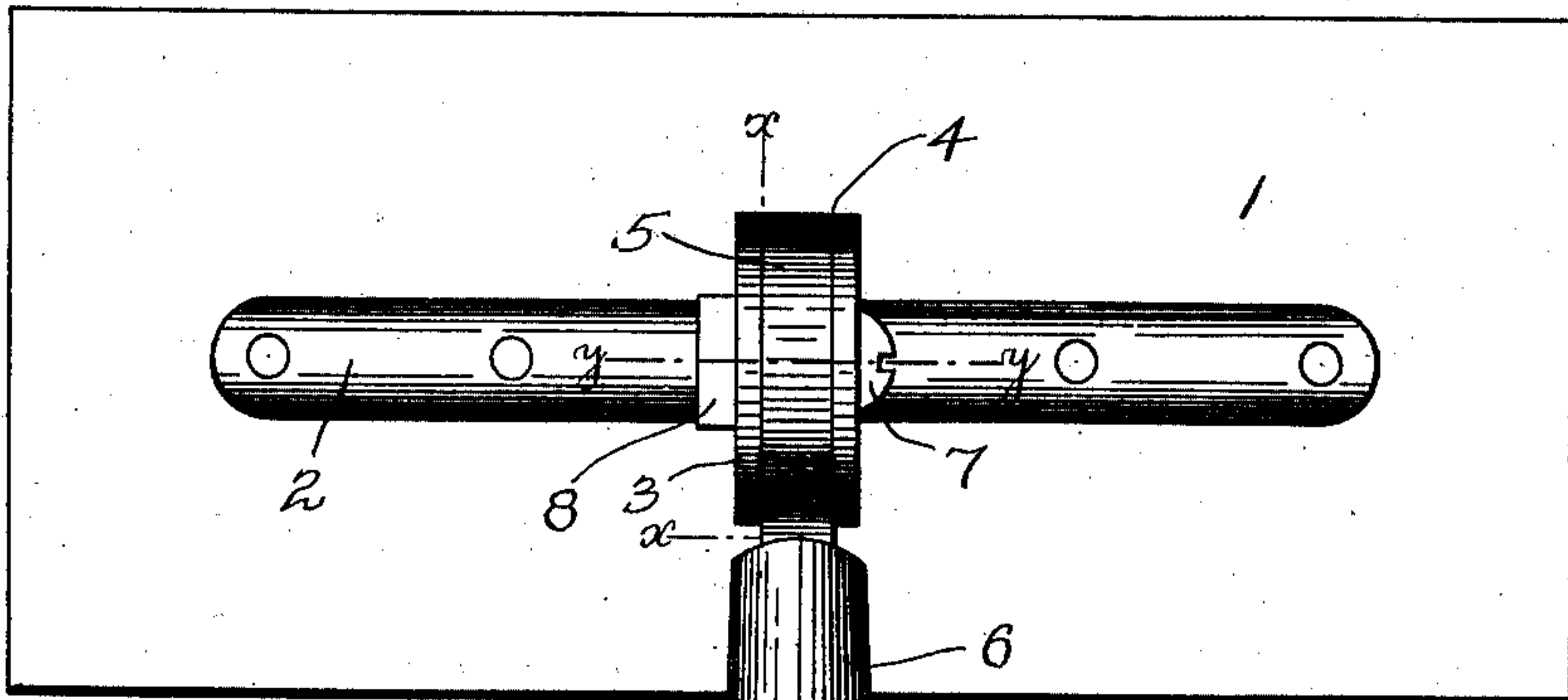


Fig. 1.

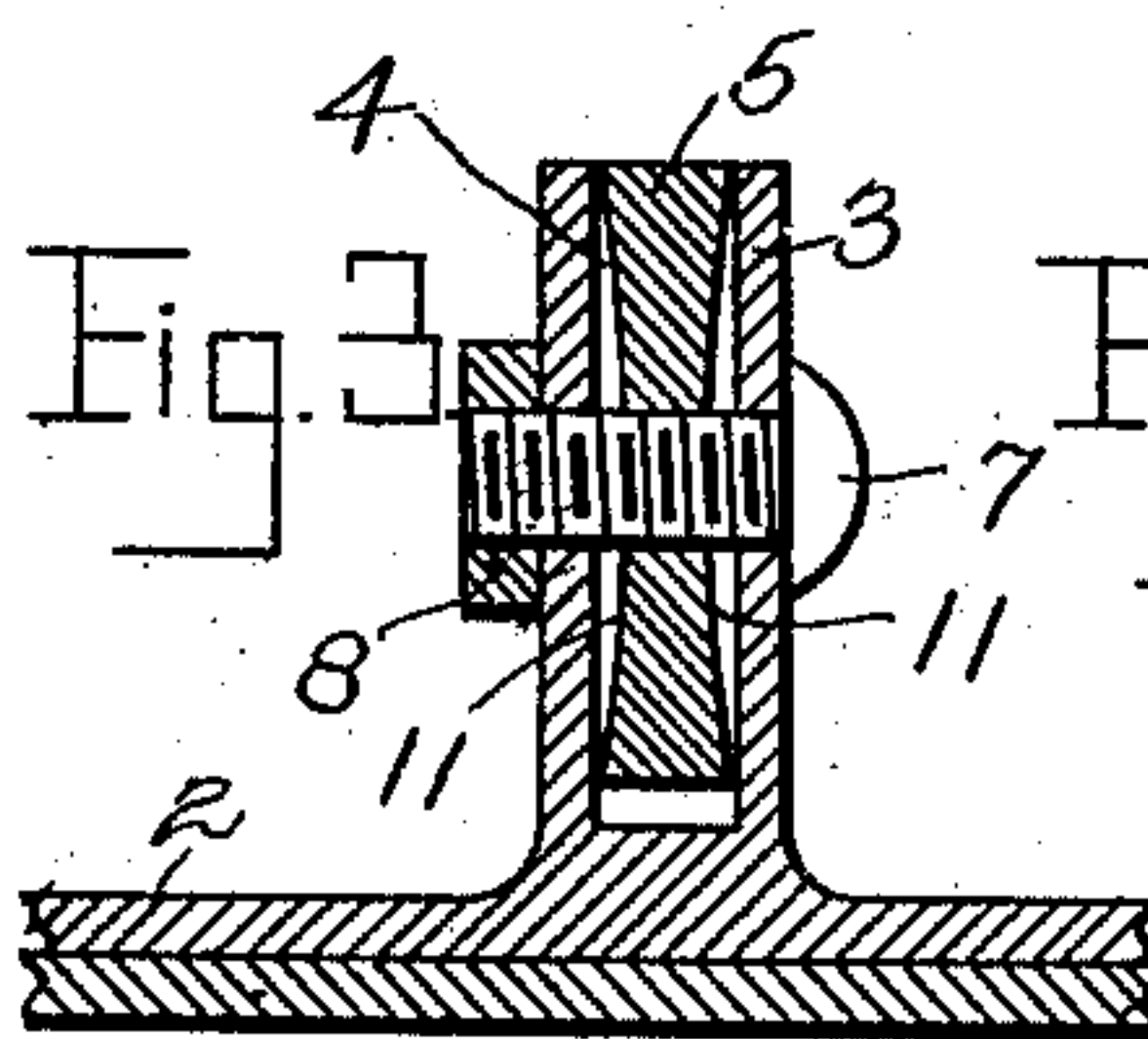


Fig. 2.

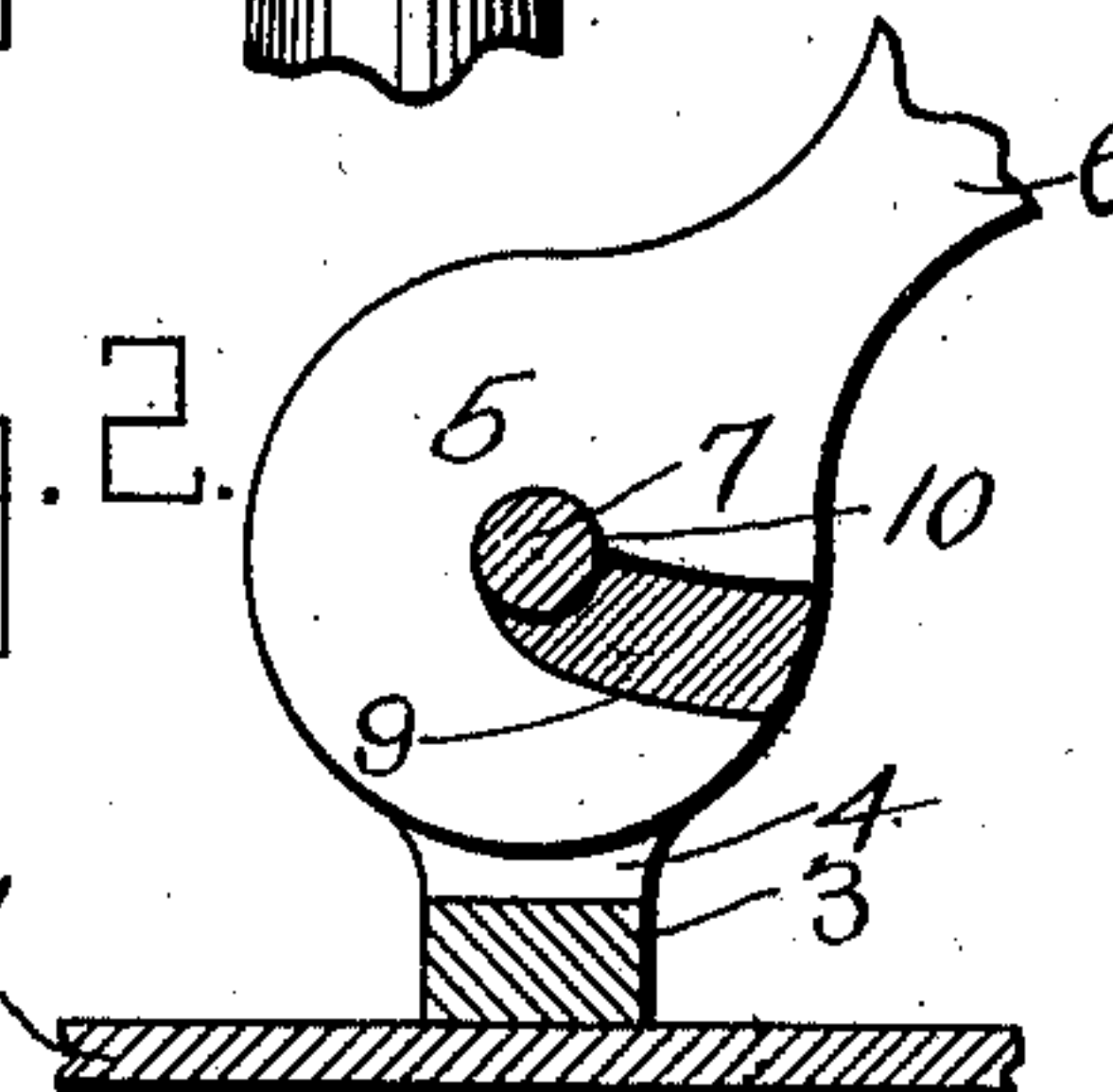


Fig. 3.

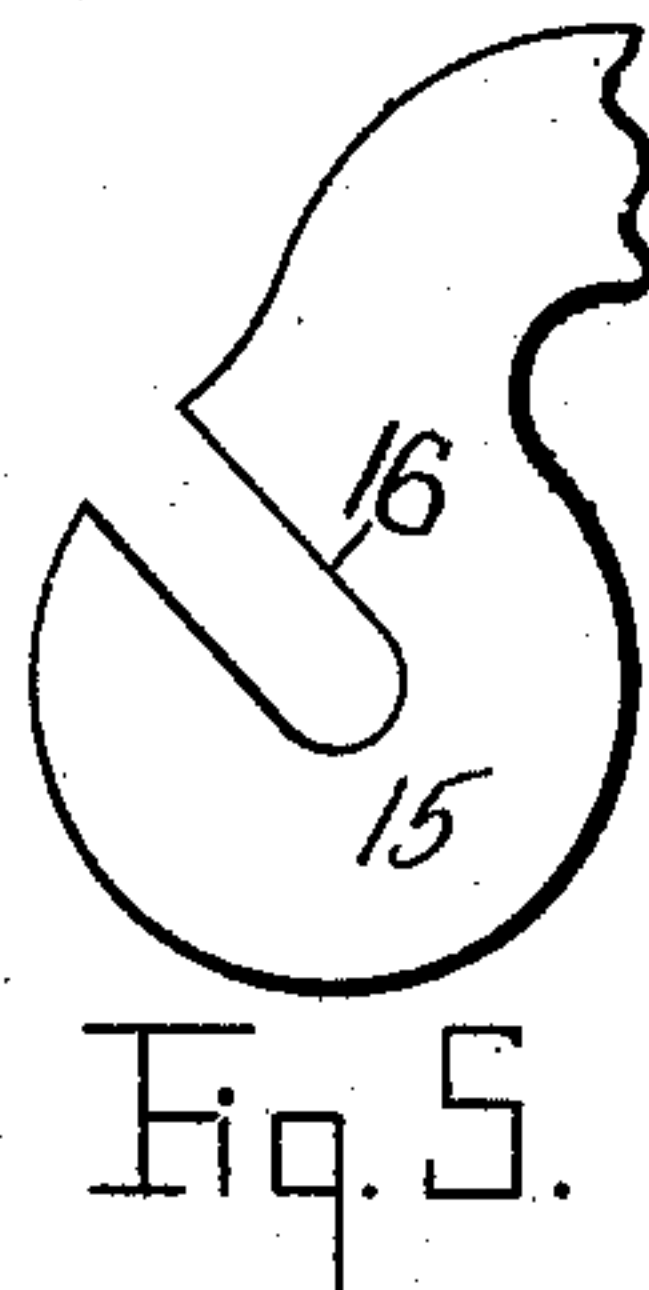


Fig. 4.

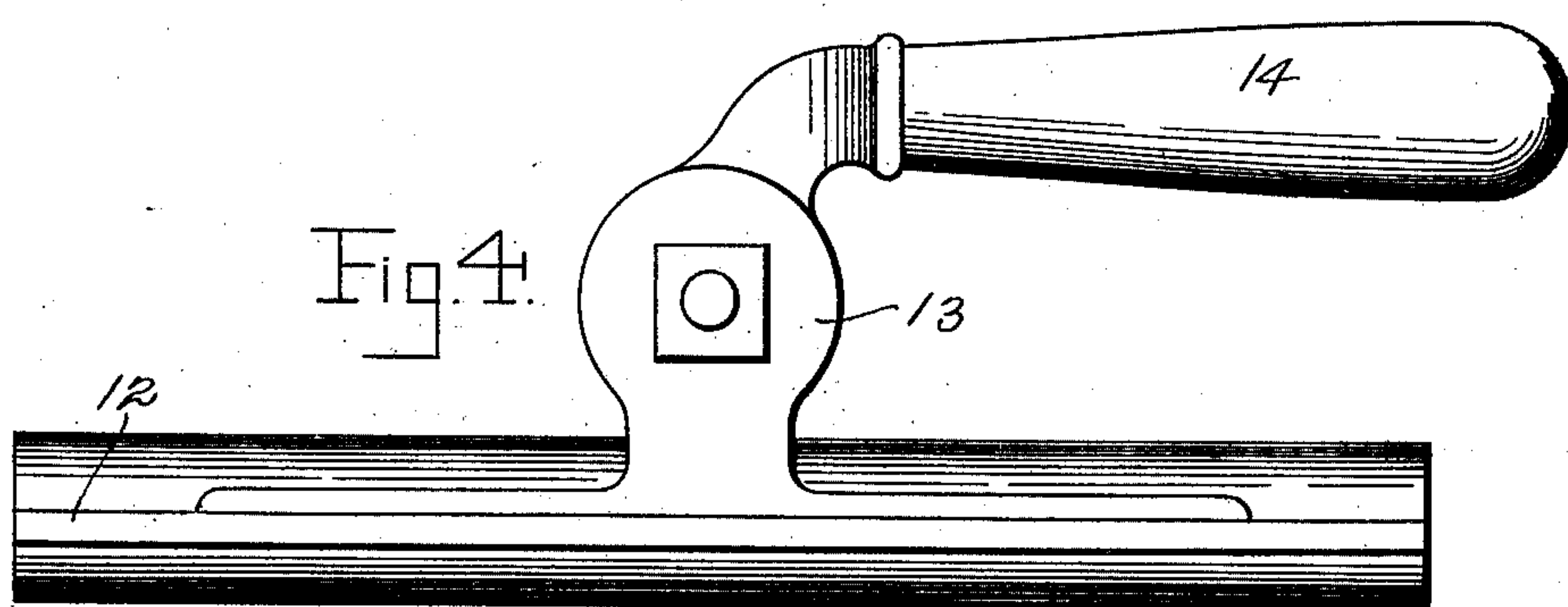


Fig. 5.

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# UNITED STATES PATENT OFFICE.

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## TOOL FOR CEMENT-WORK.

985,074.

Specification of Letters Patent.

Patented Feb. 21, 1911.

Application filed April 6, 1910. Serial No. 553,863.

*To all whom it may concern:*

Be it known that I, RALPH L. SOHN, a citizen of the United States, residing at Arrowsmith, in the county of McLean and State of Illinois, have invented certain new and useful Improvements in Tools for Cement-Work; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to tools for cement work, particularly to finishing tools for smoothing, edging and marking the surface of cement and similar plastic work.

My object is to provide simple and convenient means for attaching the removable handles to edgers, creasers or markers, trowels, floaters, and any other tools of this class. It is my aim to reduce the number of parts of the connection, thereby rendering it cheaper to manufacture, as well as simpler in construction and more convenient to handle.

The invention consists in the features of construction and combinations of parts hereinafter described and specified in the claims.

In the accompanying drawing: Figure 1 is a plan view of a trowel showing my improved handle connection as applied thereto. Fig. 2 is a sectional view on the line  $x-x$  of Fig. 1. Fig. 3 is a sectional view on the line  $y-y$  of Fig. 1. Fig. 4 is a side elevation of a creaser or marker, equipped with my handle connection, and Fig. 5 is a detailed view of the disk-shaped end of the emergency handle which is shown as attached to the tool in Fig. 4.

Referring more particularly to Figs. 1, 2 and 3 of the drawing, 1 designates a trowel such as is usually employed in laying concrete or cement sidewalks, etc. To the upper surface of said trowel there is secured a longitudinal centrally arranged rib 2, from the middle of which projects a post 3 having a bifurcation 4 extending transversely through it to accommodate the disk-shaped extremity 5 of the handle 6. A bolt 7 is passed through the post and extends across the bifurcation 4. A nut 8 is fitted on the bolt for clamping the disk 5 of the handle 6 in the bifurcation. Said disk portion of the handle is formed with an arcuate slot 9 substantially equal in width to the diameter of the bolt 7. Said slot extends to

the center of said disk and its inner extremity is rounded to fit the bolt. While the slot is arcuate throughout its length, its inner extremity has a more decided turn leaving a shoulder 10 which serves to retain the bolt in the inner extremity of the slot when the tool is in operation. The sides of said disk are cupped, as illustrated at 11 in Fig. 3, for the purpose of better holding it in the bifurcation of the post on the tool. This cupping of the sides of the disk causes the edges thereof to bind in the post when the nut is tightened on the bolt, thereby rendering the handle less apt to become accidentally disengaged from the tool in operation.

Referring to Figs. 4 and 5 of the drawing, 12 designates a creaser or marker of the ordinary type to which a post 13, similar to the post 3, already described, is attached. The post, however, in this instance, extends longitudinally of the tool, instead of transversely thereof, in conformity to the manner in which the tool is used. I have illustrated an emergency handle 14 attached to the marker. It will be understood, however, that a straight handle, such as the one illustrated in Fig. 1, may be employed on the marker, that the emergency handle may be also used on the trowel, if desired, and that either of these handles may be used on any of the other concrete finishing tools herein mentioned but not illustrated. The emergency handle is provided with a disk-shaped extremity 15 which is cupped in the same manner, as already described in connection with the disk 5 on the straight handle 6. The slot 16 in the disk 15 may be arcuate like the one in the disk 5 or it may be straight, as illustrated in Fig. 5.

It will be noted that the general direction of the slots 9 and 16 are diagonal with respect to the handles 6 and 14, respectively. In attaching the handle 6 to a tool, the slot 9 is engaged with the bolt 7 when the handle is in a downwardly inclined position with its outer end arranged below the plane of the tool. Then, after the bolt is arranged in the inner extremity of the slot 9, the handle is turned up to an angle of about forty-five degrees with respect to the tool and the nut 8 is tightened on the bolt 7 clamping the disk 5 in the post 3 and fixing the handle in that position. In case the nut should become loosened on the bolt, the shoulder 10, near the inner extremity of the



slot 9, will retain the bolt in the disk 5 and prevent the handle from becoming disconnected from the tool while the device is in use. Because of the angular shape of the emergency handle, it is inverted when the slot 16 is engaged with the bolt. Then the handle is turned over into proper position bringing the opening of the slot on top, as illustrated in Figs. 4 and 5. The disk 15 of the emergency handle is clamped in the post 13 in the same manner as already described with respect to the disk 5 on the straight handle and the post 3.

I claim:

1. The combination, with a tool of the character described, having a bifurcated post, of a handle provided with a radially slotted disk at its end fitting the bifurcation in said post, said slot being arcuate and having a more decided turn at its inner extremity forming a shoulder for the purpose

specified, and a bolt passed through said post and engaging the slot in said disk for clamping the latter in the post.

2. The combination, with a tool of the character described, having a bifurcated post, of a handle provided with a radially slotted disk at its end, said slot being arcuate and having a more decided turn at its inner extremity forming a shoulder for the purpose specified, the sides of said disk being cupped for the purpose specified, and a bolt passed through said post and engaging said slot in the disk for clamping the latter in said post.

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

RALPH L. SOHN.

Witnesses:

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