Oct. 18, 1927.

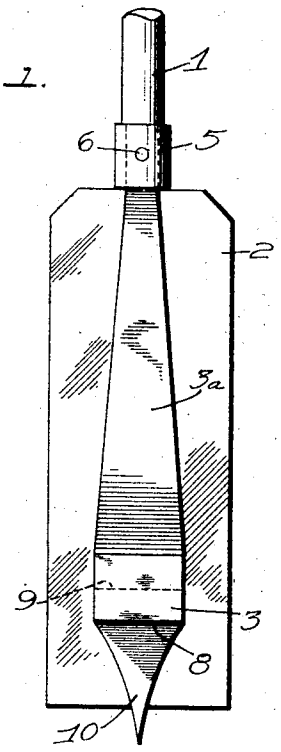
H. T. ROGERS

1,645,873

CONCRETE WORKING TOOL

Filed April 29, 1927

FIG. 1.



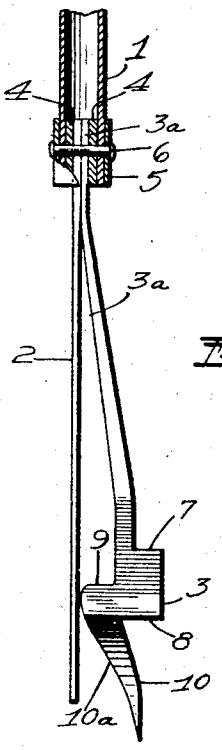


FIG. 2.

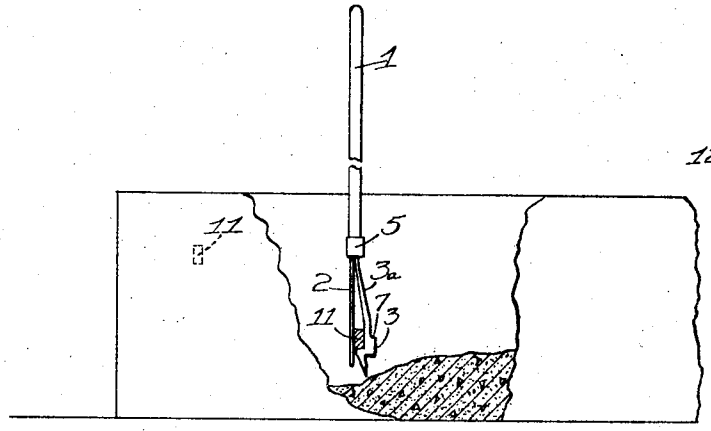


FIG. 3.

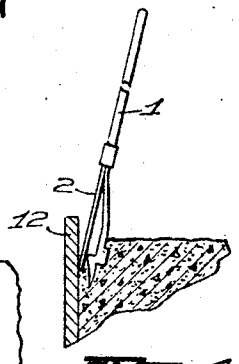


FIG. 4.

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UNITED STATES PATENT OFFICE.

HARRY T. ROGERS, OF CHICAGO, ILLINOIS.

CONCRETE-WORKING TOOL.

Application filed April 29, 1927. Serial No. 187,597.

My invention relates to improvements in tools for working concrete, and it consists in the combinations, constructions, and arrangements herein described and claimed.

An object of my invention is to provide a tool, by means of which spreaders for forms, such as the wooden blocks for holding the form boards in place while the concrete is being poured, may be readily removed.

A further object is to provide a tool which not only serves as a means for easily removing spreaders, but which also may be used as a spade to force the aggregate away from the outer surface of the wall and to permit the sand and cement to come to the edge of the wall so that the latter will have a smooth finish when the form boards are removed.

A further object of the invention is to provide a tool which will readily pick up a spreader if the latter has fallen down.

Other objects and advantages will appear in the following specification, and the novel features of the invention will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawings, forming part of this application, in which.

Figure 1 is a face view of the tool,

Figure 2 is an edge view,

Figure 3 is a view of a portion of a wall showing the manner in which the spreaders are removed, and

Figure 4 is a sectional view through a portion of the tool, showing the manner in which the device is used as a spade.

In carrying out my invention, I make use of a handle 1, which may be of any suitable material. In the present instance, this handle is shown as being a pipe. At one end thereof is inserted the shank of a spade-like member 2. This, as will be seen from the drawing, is a flat plate of steel of uniform thickness. The shank 3^a of a piece of spring steel 3 is also inserted in the end of the handle and in the present instance is wedged in by spacing plates 4. A reinforcing ring 5 surrounds the end of the handle, and a pin or a rivet 6 is provided for securing the parts together. It will be understood that this is a preferred arrangement, but that other means of securing the blade 2 and the spring member 3^a might be used without departing from the spirit of the invention. The spring member 3^a is provided with a head 3, such as will be noted, has a shoulder 7 and a flat bottom 8. On that side of the head 3 facing the blade 2 is another shoulder 9. Integral with the head 3 is a curved prong 10, such as seen from Figure 1, which is brought down to a sharp point.

From the foregoing description of the various parts of the device, the operation thereof may be readily understood. Ordinarily, the spreaders such as those shown at 11 in Figure 3 are removed by inserting a nail in the end of a rod and spearing the spreader. This method is objectionable because in a good many instances the spreaders are held too tightly to be pulled out. With my device, the blade 2 is thrust downwardly on one side of the spreader and the cam surface 10^a of the prong 10 will be forced away from the blade and then will spring in with the shoulder 9 underneath the spreader. An upward pull on the rod will result in the loosening of the spreader which is held against the blade and which may then be removed. In case the spreader should drop to the surface of the concrete, it may be readily picked up by thrusting the prong downwardly into it so as to impale the spreader on the prong.

It may be that the spreader is so firmly lodged that it is desirable to loosen one end by pulling upwardly. In such instance, the shoulder 7 may be placed underneath the spreader and a strong pull will usually dislodge it. If one end of the spreader is a little lower than the other but still is tightly wedged in, a downward thrust, so as to bring the shoulder 8 into engagement with the spreader, may loosen it.

The device may be used as the ordinary spade for crowding the aggregate back, and in such instance the edge of the spade or blade 2 is placed against the inner face of the form 12 and the handle may be manipulated to crowd away the aggregate.

It will be seen that the blade 2 has a double function; i. e., that of the ordinary spade for crowding back the aggregate and has a means for retaining the spreader when the latter is being removed. By the use of this tool the spreaders can be quickly removed from any position.

I claim:

1. A concrete working tool, comprising a handle, a blade secured thereto, a spring member having a shoulder facing the blade, and a cam carried by the spring member at the end thereof and being inclined angularly away from the face of the blade.

2. A concrete working tool, comprising a

handle, a flat blade carried at one end of said handle, a spring member having a head provided with a shoulder facing the blade, and a prong carried by the head, the upper end of the prong being normally in contact with the blade and said prong having one edge angularly inclined away from the blade.

3. A concrete working tool, comprising a handle, a flat metal plate secured to one end thereof, a spring member secured to the handle, said spring member having a head provided with upper and lower shoulders on the side of the spring member opposite the blade and having a shoulder on the side facing the blade, and a prong carried by the head at the end thereof, said prong having one edge inclined upwardly from the blade and being provided at its end with a sharpened point.

HARRY T. ROGERS.