

1,019,539.

G. W. SHARP.  
CEMENT FINISHING MACHINE.  
APPLICATION FILED JAN. 28, 1910.

Patented Mar. 5, 1912.

2 SHEETS—SHEET 1.

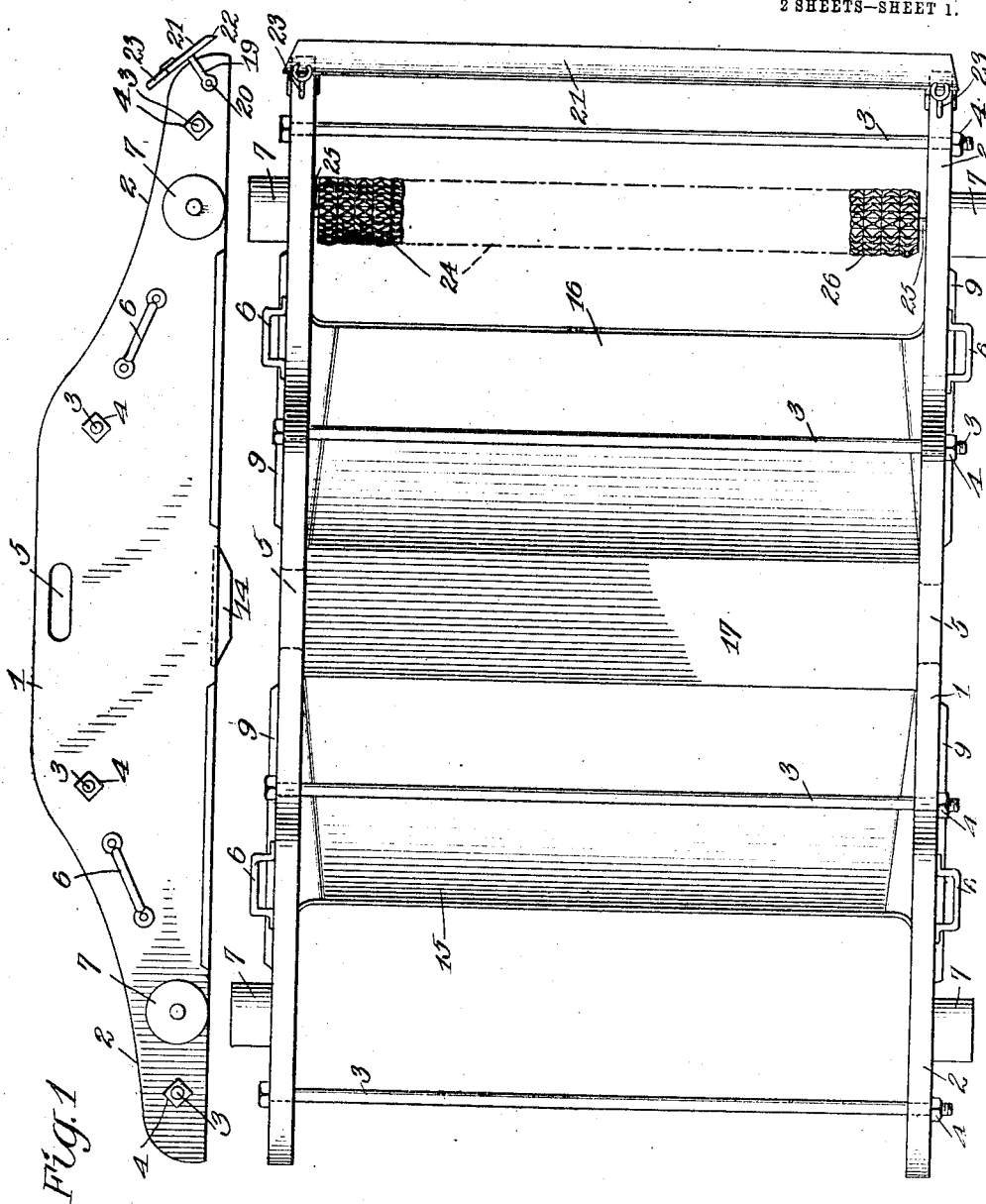


Fig. 1

Fig. 2

WITNESSES:  
*Samuel C. Wade*  
*C. E. Trainor*

INVENTOR  
*GEORGE W. SHARP*  
BY *Munn & Co*  
ATTORNEYS

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2 SHEETS—SHEET 2.

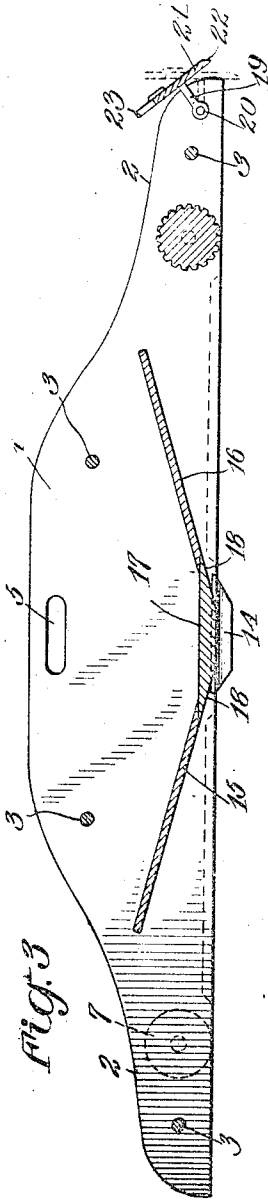


Fig. 4

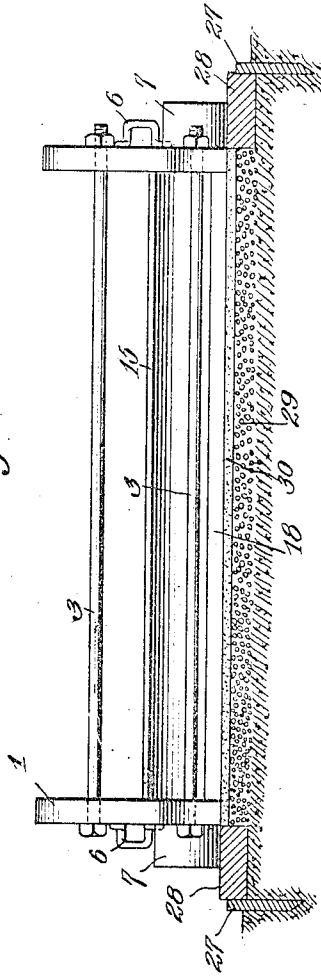


Fig. 6

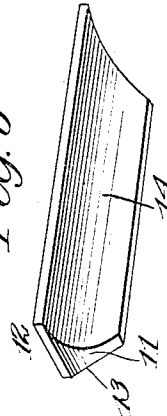
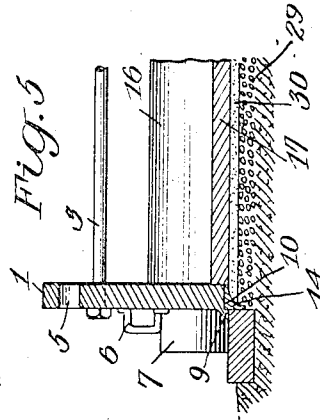


Fig. 5



WITNESSES:  
*Samuel E. Wade*  
*C. E. Spencer*

INVENTOR  
*GEORGE W. SHARP*  
BY *Munn & Co.*  
ATTORNEYS

# UNITED STATES PATENT OFFICE.

GEORGE W. SHARP, OF ENID, OKLAHOMA.

CEMENT-FINISHING MACHINE.

1,019,539.

Specification of Letters Patent.

Patented Mar. 5, 1912.

Application filed January 28, 1910. Serial No. 540,514

*To all whom it may concern:*

Be it known that I, GEORGE W. SHARP, a citizen of the United States, and a resident of Enid, in the county of Garfield and State of Oklahoma, have made certain new and useful Improvements in Cement-Finishing Machines, of which the following is a specification.

My invention is an improvement in cement finishing machines, and consists in certain novel constructions, and combinations of parts, hereinafter described and claimed.

The object of the invention is to provide a device for imparting a smooth and finished surface to cement sidewalks, and which will be in a light but strong and compact form so as to be easily transported from place to place.

Referring to the drawings forming a part hereof, Figure 1 is a side view of the improvement, Fig. 2 is a top plan view, Fig. 3 is a longitudinal vertical section, Fig. 4 is an end view, Fig. 5 is a partial transverse section, and Fig. 6 is a perspective view of one of the groove formers.

The embodiment of the invention shown in the drawings, consists of a frame, composed of cheek or side plates 1, which, as shown more clearly in Figs. 1 and 3, are of greatest width at their centers, and are reduced toward their ends as at 2, and the plates are connected by cross rods 3. The rods 3 extend through registering openings in the cheek plates, and are engaged by nuts 4, to retain the parts in place, and each cheek plate is provided at its center, and near its upper edge with a hand hold 5. Each cheek plate is also provided on its outer face, near the junction of the reduced portion with the main portion, with a handle 6. Each cheek plate is provided near each end with a roller 7, which is journaled to a stud bolt 8, extending laterally from the cheek plate, and near each roller a flange 9 is arranged at the lower edge and on the outer face of the plate.

The flanges on each plate are spaced apart from each other at their inner ends, and between the flanges, each plate is rabbeted on its inner face, at its lower edge, as shown at 10 in Fig. 5, and an edging or grooving tool 11 preferably of brass is seated in the rabbeted edge. This tool, shown more particularly in Fig. 6, is substantially right triangular in shape, having two flat faces 12 and

13 at right angles to each other, and a concave face 14 connecting the flat faces. The base 12 is seated on the lower edge of the cheek plate, the face 13 being outward, and the concave face 14 inward.

A hopper is formed between the cheek plates, by means of two sheets 15 and 16, preferably of sheet iron, their ends being riveted, or otherwise secured, to the cheek plates, while the adjacent edges of the sheet are spaced apart from each other, and are connected by a smoothing bar or plate 17. The plate 17 is preferably of steel, is beveled at each edge on its lower face, as shown at 18, and the edges of the sheets are also beveled to fit against the upper face of the plate. The sheets are arranged at an angle to the plate as shown in Fig. 3, and with the plate, form a species of hopper.

A pair of arms 19 are pivoted to one end of each cheek plate, one member of the pair being arranged on each side of the plate, by means of a bolt or nut 20, and each pair is connected to the end of a plate 21, preferably of brass, and having its lower edge beveled as at 22. The plate 21 is a jointing plate, being mounted to swing, so that it may take either the position shown in full lines in Fig. 3, or the position shown in dotted lines and when in the latter position, the beveled edge of the plate is brought into contact with the soft cement and forms a joint mark therein.

At each end the plate 21 is provided with a handle 23, for convenience in manipulating the same, and when not in use, is swung back on the ends of the cheek plates. A roller 24 is journaled transversely between the cheek plates, by means of trunnions on the roller engaging bearings in the plates, and the peripheral surface of the roller is provided with an ornamental figure as at 26, shown in Fig. 2.

In operation, a form consisting of side stakes 27 is provided for the walk, and a stringer or beam 28 is laid alongside each stake on the inner side thereof. The inner edges of the stringer mark the limits of the walk, and it will be understood that the machine is of a width to correspond with the width of the walk. The plastic material 29 is laid between the stringers, and after it has set sufficiently the coat 30 of cement is laid. The said coat is shoveled or dumped from any suitable receptacle on to the concrete and the machine is drawn over the

walk and the sides 15 and 16 push the mixture forwardly in both directions, while the plate 17 smooths the said coat to a true level and finishes the same. The machine may be pushed forward or backward without lifting it from the forms and this reciprocating movement gives the cement a better finish than were the machine drawn in one direction. The receptacle formed by the sides 15 and 16 is not intended to receive anything, being merely an incident of construction, owing its shape to the inclination of the smoothing plates 15 and 16. At suitable intervals the plate 21 is pressed down into the position shown in dotted lines, thus forming the joint marks, and giving the finished work the appearance of being formed from plates. The edging tools 11 finish the side edges of the walk, imparting thereto a rounded upper corner, and further heightening the resemblance above stated. If a smooth surface is not desired, the roller 24 is made use of, and when in place a figured surface is imparted to the finishing coat; when a smooth surface is desired, this roller, which is preferably of brass, is removed.

While the edging tools 11, the plate 21, the roller 24 and the plate 17 are preferably of brass and steel, they are not necessarily so, and may be of any suitable material and shape, as may also the remaining elements.

The machine as a whole, while strong and of sufficient weight to do the work, is yet sufficiently light and compact to be easily transported.

In order that there may be sufficient weight without making the machine too bulky, the cement is made use of to increase the weight, and during transportation it may be removed from the hopper.

I claim:

1. A machine of the character specified, comprising an open wheel supported frame, a smoothing plate arranged transversely of the frame, the lower face thereof being substantially flush with the lower edges of the frame, an inclined plate arranged transversely of the frame at each side of the smoothing plate, each of the said plates having one edge abutting the adjacent edge of the smoothing plate and inclining upwardly and outwardly toward its free edge, a roller journaled transversely of the frame behind the smoothing plate, an edging bar outside of the frame, each of the said bars having a longitudinal concave face facing inwardly and downwardly and extending below the frame, and a plate arranged transversely of

the frame at one edge thereof and mounted to swing above and below the frame, said plate having a beveled lower edge.

2. In a machine of the character specified, a wheel supported frame, a horizontal smoothing plate arranged transversely of the frame, the lower face of the plate being substantially flush with the lower edge of the frame, an inclined plate at each side of the smoothing plate and having its lower edge abutting the adjacent edge of the smoothing plate, and a marking plate arranged transversely of the frame at one end thereof and mounted to swing above and below the frame and having a lower beveled edge.

3. A machine of the character specified, comprising an open wheel supported frame, a smoothing plate arranged transversely of the frame, said plate being substantially triangular in cross section and having its apex extending substantially flush with the lower edge of the frame, and a transverse marking plate at one end of the frame mounted for swinging movement toward and from the surface to be operated upon.

4. A machine of the character specified, comprising an open wheel supported frame, a smoothing plate arranged transversely of the frame, said plate being substantially triangular in cross section and having its apex extending substantially flush with the lower edge of the frame, a transverse marking plate at one end of the frame mounted for swinging movement toward and from the surface to be operated upon, said plate having a lower beveled edge for engaging and marking the plastic material.

5. In a machine of the character specified, an open frame, a smoothing plate arranged transversely of the frame intermediate the ends thereof, said plate being substantially triangular in cross section and arranged with its apex extending substantially flush with the lower edge of the frame.

6. In a machine of the character specified, an open frame, a smoothing plate arranged transversely of the frame intermediate the ends thereof, the lower face of the plate being substantially flush with the lower edge of the frame, and said lower face having its side edges beveled and an edging bar connected with the frame at each end of the smoothing plate and extending below the said plate.

GEORGE W. SHARP

Witnesses:

FRANK BRADFIELD,  
J. T. BRADFIELD.