No. 808,900. PATENTED JAN. 2, 1906.

P. F. CONNELLY.

TOOL FOR MAKING ARTIFICIAL STONE WALKS.

APPLICATION FILED MAR. 10, 1905.

Fig. 1.

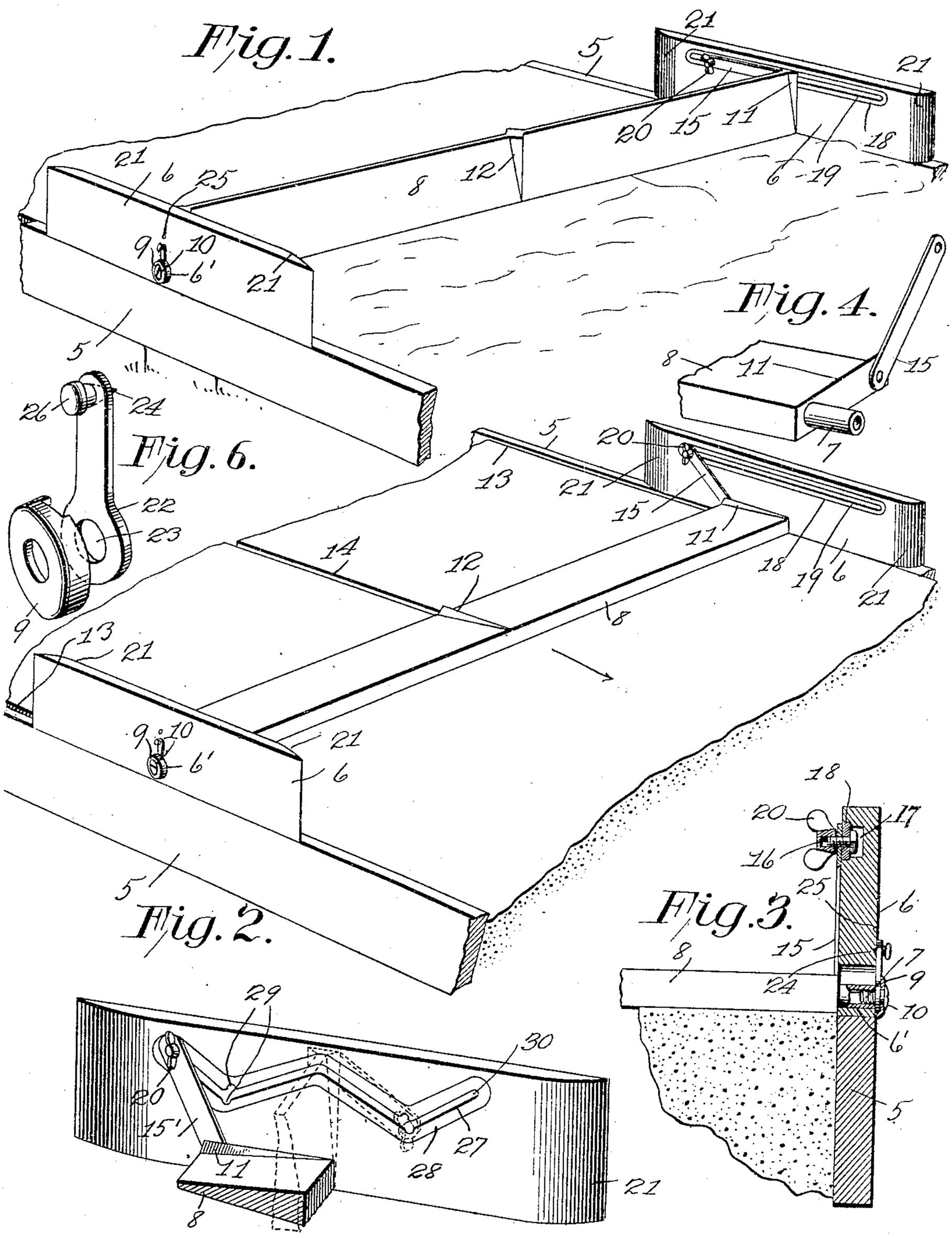

Fig. 4.

Fig. 6.

Fig. 2.

Fig. 3.

Fig. 5.

Witnesses

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TOOL FOR MAKING ARTIFICIAL-STONE WALKS.

No. 808,900. Specification of Letters Patent. Patented Jan. 2, 1906.

Application filed March 10, 1905. Serial No. 249,493.

To all whom it may concern:

Be it known that I, PATRICK F. CONNELLY, a citizen of the United States, residing at Sioux Falls, in the county of Minnehaha and State of South Dakota, have invented a new and useful Tool for Making Artificial-Stone Walks, of which the following is a specification.

This invention relates to an improved tool for making artificial-stone walks, and has for its object to provide a simple, inexpensive, and efficient tool of this character by means of which pavements or walks formed of cement or similar plastic material may be conveniently and expeditiously laid.

A further object of the invention is to provide a tool having a pivoted straight-edge for leveling and removing the surplus material between the side walls of the mold-frame, said straight-edge being formed with converging side walls and provided with a plurality of marking or cutting ribs, so that when the straight-edge is reversed the same may be used for smoothing and polishing the surface of the walk and also for cutting and finishing the center joint or joints, as well as for cutting or beveling the opposite edges of the walk.

A still further object is to provide means for adjusting the straight-edge vertically with respect to the shoes or runners and whereby the straight-edge may be quickly and conveniently reversed and securely locked in reversed or adjusted position.

With these and other objects in view the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended, it being understood that various changes in form, proportion, and minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

In the accompanying drawings, forming a part of this specification, Figure 1 is a perspective view of a portion of a walk or pavement, showing the straight-edge of the tool in position for leveling and removing the surplus cement. Fig. 2 is a similar view showing the straight-edge reversed and in position for finishing, polishing, and marking the surface of the walk. Fig. 3 is a detail transverse sectional view of one of the guide members or runners. Fig. 4 is a detail perspective view of one end of the straight-edge with the adjusting-link attached. Fig. 5 is a perspective view, partly in section, illustrating a modified form of the invention. Fig. 6 is a perspective view of the spring locking clip or ring detached.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

The improved tool herein shown and described is particularly designed for use in laying sidewalks formed of artificial stone or cement and in which suitable frames 5 are employed for retaining the plastic material in position until thoroughly set.

The device comprises a pair of guide-blocks or runners 6, adapted to rest on the side bars of the frame 5, as shown, and provided with alined openings 6′, in which are journaled the terminal pins or trunnions 7 of a transversely-disposed bar or straight-edge 8, the latter being pivotally supported between the runners by suitable caps 9. The caps 9 are secured to the runners 5 by suitable screws, the threaded shanks 10 of which enter the trunnions 7, as clearly shown in Fig. 3 of the drawings. The base of the bar 8 is smooth and flat and forms the straight-edge proper, while the side walls of said bar converge toward the top of the latter and are provided with terminal laterally-extending marking-ribs 11 and an intermediate marking-rib 12 for forming the longitudinal channels 13 and 14 in the upper surface of the cement or other plastic material of which the pavement is formed.

Attention is called to the fact that the marking-ribs gradually decrease in height from the top of the bar to the base or straight-edge proper, so that when the tool is moved in the direction indicated by the arrow in Fig. 2 of the drawings the ribs will enter the cement without breaking, cracking, or otherwise disfiguring the finished surface of the latter.

Pivoted to the terminal ribs 11 of the straight-edge are links 15, the opposite ends of which are pivotally supported on bolts 16, slidably mounted in longitudinal slots 17, formed in the runners 6. The slots 17 are preferably disposed parallel with upper edges of the runners, and seated in said slots are bearing-plates 18, also provided with longitudinal slots 19, through which the bolts 16 pass, the latter being provided with wing-nuts 20 for clamping the links 15 in adjusted position.

As a means for adjusting the straight-edge

vertically with respect to the runners I provide spring locking members 22, the lower ends of which are arranged within the caps 9 and are perforated, as indicated at 23, for the reception of the threaded shanks 10. The locking members are provided with laterally-extending lugs or projections 24, adapted to engage any one of a series of notches or recesses 25 in the side walls of the runners 6, said members being also provided with knobs or handles 26, so that by grasping said knobs and exerting a lateral pull on the locking members the lugs 24 will be released from the recesses 25, thereby permitting the straight-edge to be adjusted vertically to the desired position.

In operation, after the cement or other plastic material has been shoveled or otherwise introduced in the frame 5 and thoroughly tamped, the tool is placed in position with the runners 6 resting on the side bars of said frame, as shown. The bar 8 is then adjusted to bring the straight-edge in contact with the cement by releasing the clamping-nut and swinging said bar to the vertical position, (shown in Fig. 1 of the drawings,) after which the runners carrying the straight-edges are moved longitudinally of the frame, thereby removing the surplus cement and rendering the upper surface of the latter level with the tops of the side boards 5 of the mold. Attention is here called to the fact that by having the inner faces of the runners curved outwardly at the opposite ends of the latter, as indicated at 21, the surplus cement or other plastic material is deflected laterally over the side bars of the frame 5 during the leveling operation. After the surface of the cement has been leveled in the manner stated the position of the bar 8 is reversed by releasing the clamping-nut and swinging said bar downwardly to the position shown in Fig. 2 of the drawings, in which position the longitudinal movement of the runners on the frame will cause the straight-edge to smooth and polish the surface of the walk and the terminal and intermediate ribs to form the marking grooves or channels in the surface of the cement.

In Fig. 5 of the drawings there is illustrated a modified form of the invention in which the runners are formed with angularly-disposed slots 27, while the correspondingly-shaped bearing-plates 28 are provided with notches or recesses 29, adapted to receive the clamping-bolt. By this construction it is unnecessary to tighten or release the wing-nut when adjusting the straight-edge, as the links 15′ are prevented from moving by engagement of the bolts with the end wall 30 of the bearing-plate when the straight-edge is in one position and by engagement with the notches or recesses 29 when in the reversed position.

From the foregoing description it will be seen that with a single tool the surplus cement between the side walls of the mold may be removed and the surface of the walk leveled and polished and the opposite edges and intermediate portion of said walk beveled or otherwise artistically finished.

Having thus described the invention, what is claimed is—

1. In a device of the class described, a pair of runners, and a straight-edge pivotally supported between said runners and having its pivotal axis adjustable vertically with respect thereto.

2. In a device of the class described, a pair of runners, a straight-edge pivotally supported between said runners and having its pivotal axis adjustable vertically with respect thereto, and means for locking the straight-edge in adjusted position.

3. In a device of the class described, a pair of runners, and a combined straight-edge and marker pivotally supported between said runners.

4. In a device of the class described, a pair of runners, a straight-edge pivotally supported between said runners, and marking-ribs carried by the straight-edge.

5. In a device of the class described, a pair of runners, and a straight-edge pivotally supported between said runners and having its side walls converging and provided with marking-ribs.

6. In a device of the class described, a pair of runners, and a straight-edge pivotally supported between said runner and provided with terminal and intermediate marking-ribs.

7. In a device of the class described, a pair of runners, and a straight-edge having converging side walls provided with terminal and intermediate marking-ribs gradually decreasing in height toward the base of said straight-edge.

8. In a device of the class described, a pair of runners each provided with a longitudinal slot, a straight-edge pivotally supported between said runners, and links pivoted to the opposite ends of the straight-edge and slidably mounted in said slots.

9. In a device of the class described, a pair of runners provided with alined recesses, a reversible straight-edge provided with terminal trunnions adapted to engage said recesses for pivotally supporting the straight-edge between said runners, and means for locking the straight-edge in reversed position.

10. In a device of the class described, a pair of runners each provided with a longitudinal slot, a reversible straight-edge pivotally supported between said runners, links pivoted to the opposite ends of the straight-edge, and clamping-bolts engaging the links and longitudinal slots for locking said straight-edge in reversed position.

11. In a device of the class described, a pair of runners, a combined straight-edge and marker pivotally supported between said runners and adjustable vertically with respect to

the latter, and means for locking the straight-edge in adjusted position.

12. In a device of the class described, a pair of runners provided with a plurality of recesses or pockets, a straight-edge pivotally supported between said runners and adjustable vertically with respect to the latter, and a spring locking-clip carried by the straight-edge and adapted to engage the recesses in the runners for locking the former in adjusted position.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

PATRICK F. CONNELLY.

Witnesses:
C. H. YEARIAN,
COLEMAN NAUGHTON.