

April 14, 1925.

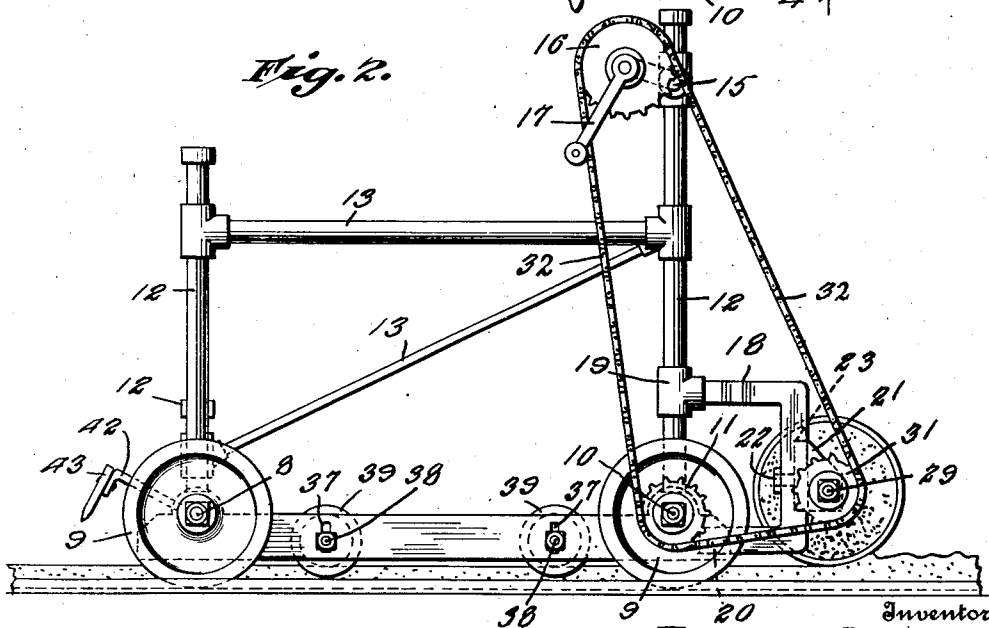
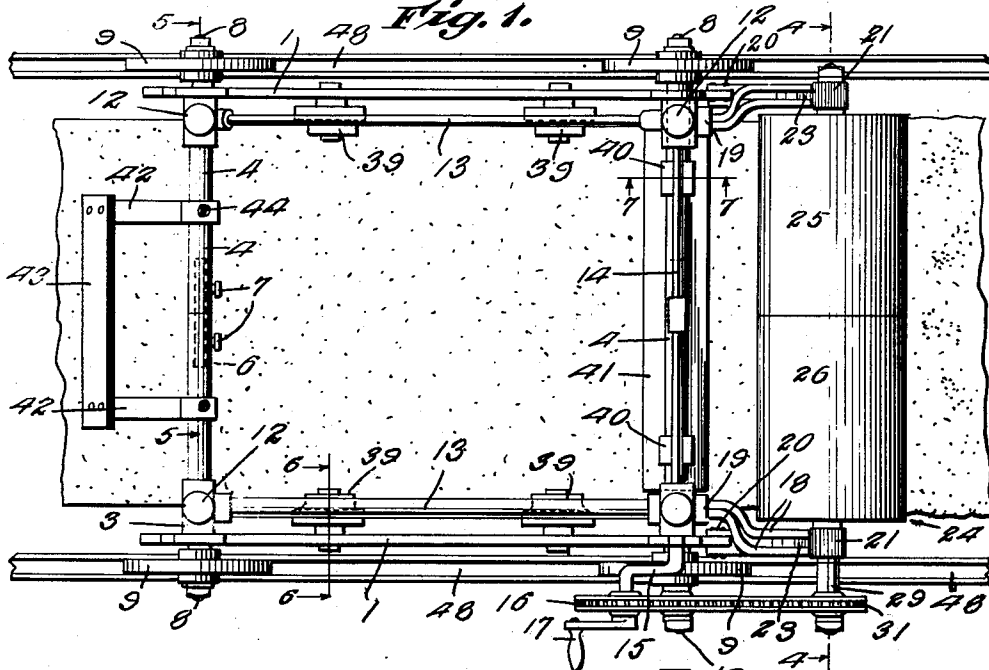
1,533,085

J. L. ARNETT

ADJUSTABLE PLASTIC TAMPING MACHINE

Filed March 23, 1923

2 Sheets-Sheet 1



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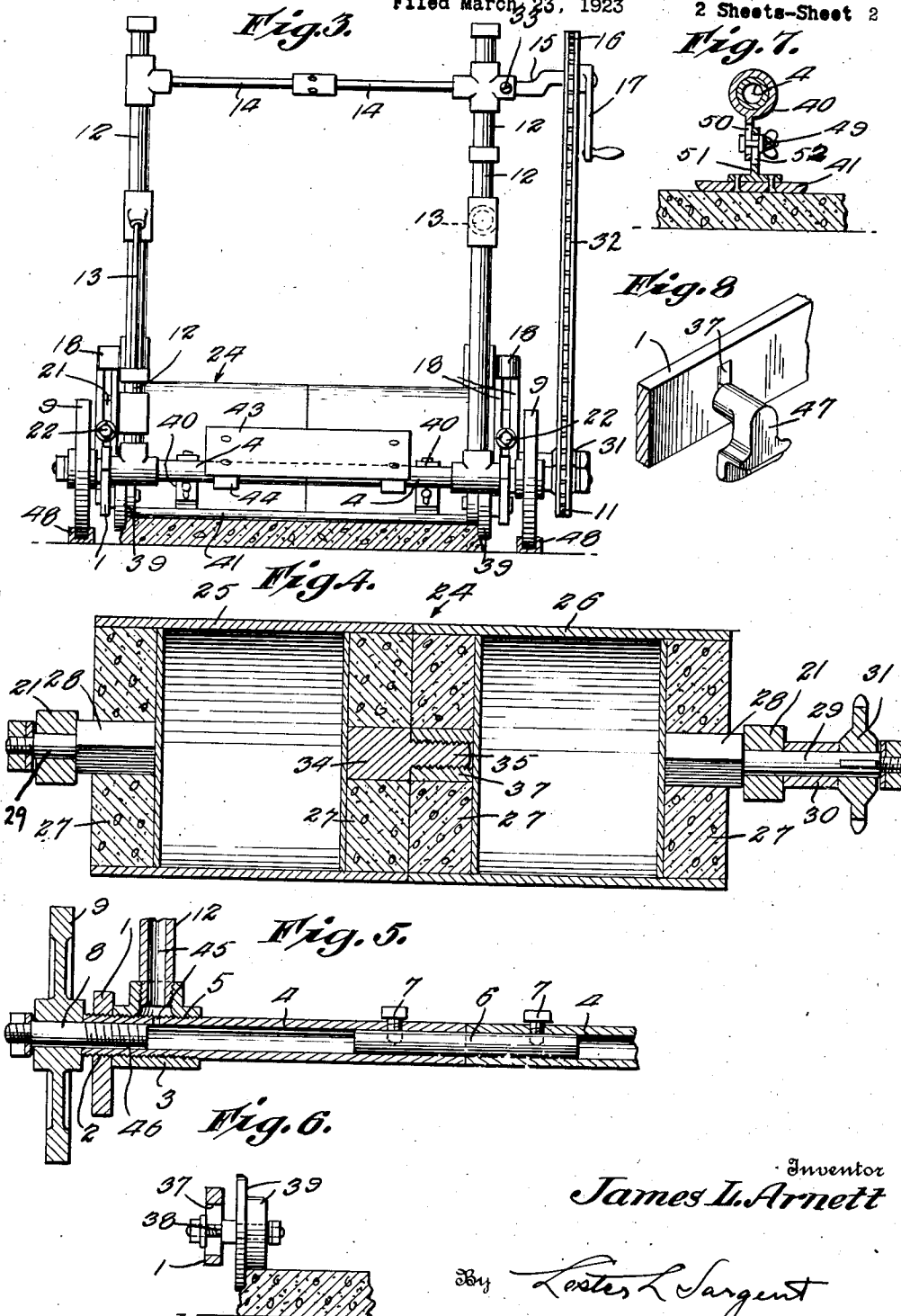
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ADJUSTABLE PLASTIC TAMPING MACHINE

Filed March 23, 1923

2 Sheets-Sheet 2



Inventor  
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## UNITED STATES PATENT OFFICE.

JAMES L. ARNETT, OF MANNINGTON, WEST VIRGINIA.

## ADJUSTABLE PLASTIC-TAMPING MACHINE.

Application filed March 23, 1923. Serial No. 627,196.

*To all whom it may concern:*

Be it known that I, JAMES L. ARNETT, a citizen of the United States, residing at Mannington, in the county of Marion and State of West Virginia, have invented a new and useful Adjustable Plastic-Tamping Machine, of which the following is a specification.

The object of my invention is to provide an improved machine for building concrete or cement side-walks; to provide a machine that may be readily adjusted to different widths of side-walks, to provide novel means in connection with such a machine for smoothing the edges of the walks and for marking the surface of the side-walk to resemble blocks, and to provide the novel combination and arrangement of parts disclosed in the accompanying drawings, in which—

Figure 1 is a top plan view of my invention;

Fig. 2 is a side elevation of same;

Fig. 3 is a rear elevation of same;

Fig. 4 is a longitudinal section through the rolls 25 and 26 on the line 4—4 of Fig. 1;

Fig. 5 is a detail sectional view on line 5—5 of Fig. 1;

Fig. 6 is a detail sectional view on the line 6—6 of Fig. 1;

Fig. 7 is a detail sectional view on the line 7—7 of Fig. 1; and

Fig. 8 is a detail perspective view of a modified form of edging member 47.

Like numerals indicate like parts in each of the several views.

Referring to the accompanying drawings, I provide side frames 1, sectional tubular shafts 4 which function as axle members for the wheels 9, which ride on suitable tracks 48. Tubular shafts 4 contain intermediate shaft sections 6 permitting of telescopic adjustment and being secured in adjusted position by suitable set screws 7. Tubular shafts 4 are provided with exteriorly threaded ends 2 on which are mounted T-joints 3 on which are mounted the posts 12 and the longitudinally extending braces 13, as indicated in Figs. 1 and 5. I provide stub shafts 8 threaded in the ends of tubular shafts 4, said shafts 8 carrying the wheels 9, as shown in Fig. 5.

The front tubular shaft 40 is provided with an extension 10 on which is splined a sprocket 11. I provide suitable extensible braces 14 to reinforce posts 12, as shown in Fig. 1. Secured on front post 12 is a suitable adjustably mounted crank arm 15 which carries the sprocket wheel 16, which wheel is actuated by the crank 17 to turn the sprocket chain 32 which rides on the sprockets 16, 31, and 11, thus simultaneously rotating the rollers 25, and 26 which are driven by sprocket 31 and the extension shaft 10 and wheel 9 to operate the machine.

I provide a pair of brackets 18, attached at 19 to front posts 12. Brackets 18 are attached at 20 to the side frames 1. Brackets 18 carry adjustably mounted bearings 21, adjusted by set screws 22. Axle extensions 29 and angular stub shafts 28 are mounted in bearings 21. Stub shafts 28 are embedded in the cement fillers 27 in the ends of roller 24. I provide a suitable spacing collar between bearing 21 and sprocket 31, as shown in Fig. 4. Bearings 21 are provided with lugs 23 which engage between the respective pairs of brackets 18 as shown in Fig. 1 for permitting of the vertically adjustable attachment of bearing 21 on the U-shaped bracket 18.

The roller 24 consists of any suitable number of sections, of which two are illustrated in Fig. 4 and designated 25 and 26 respectively. Section 25 has a stub shaft 34 embedded in the cement filler 27, this stub shaft 34 having a screw threaded stud 35 which engages in the screw threaded socket 37 which is embedded in the cement filler 27 of roller section 26, as shown in Fig. 4.

I provide vertical slots 37 in side frames 1 in which are adjustably mounted the stub shafts 38 which carry the edging wheel 39, as shown in Figs. 2 and 6.

Referring to Fig. 7, I provide brackets 40 on shaft 4, said brackets 40 having slots 50. I provide a thumb screw 49 engaging in slot 50 and in a corresponding slot 52 in bracket 51 which is affixed to the float 41 whereby to permit of vertical adjustment of the float relative to the frame of the machine.

As shown in Fig. 1 I provide brackets 42

adjustably mounted on tubular shaft 4 by means of set screws 44. Brackets 42 carry the marker 43 by means of which the freshly laid concrete side-walk may be marked to resemble blocks.

Upright posts 12 are hollow, thus providing the oil channel 45, by means of which oil may be supplied to the oil grooves 46 in stub shafts 8, as shown in Fig. 5.

Referring to Fig. 8, a modified form of edging tool as shown may be utilized in place of the edging wheels 39.

In operation the machine is driven by crank 17 which operates sprocket 16 and sprocket chain 32, which in turn drives the roller 24 to tamp the concrete, the machine itself at the same time being propelled by wheel 9 which is affixed to and driven by sprocket 11, which also is operated by sprocket chain 32. Vertically adjustable edging wheels 39 or tool 47 smooth off the edge of the concrete. The float 41 also functions to smooth the concrete and the marker 43 marks it to resemble blocks, this marker being laterally slidable on the machine. The roller 24 is made up of any suitable number of sections and may be lengthened or shortened to fit the particular side-walk. At the same time the tubular shaft 4 and intermediate shaft 7, as well as the present shaft 14 are longitudinally extensible, permitting of easy adjustment of the width of the machine to suit the width of the walk where the roller be composed of two or more sections. By providing crank arm 15 the tension on sprocket chains 32 may be regulated by adjusting the position of this crank arm relative to the post 12 to which it is attached.

The machine may be operated by one man, who performs with the machine an amount of work ordinarily requiring the services of several persons.

What I claim is:

1. In a machine of the class described, the combination of a wheeled frame, said frame including vertically disposed side frames, laterally extensible transverse shaft sections, laterally extensible brace members, a roller comprising any desired number of roller sections affixed to each other end to end, means for simultaneously rotating the roller and driving one of the wheels of the machine forward, and edging tools carried by and vertically adjustable on the side frames.

2. In a machine of the class described, the combination of a wheeled frame, laterally extensible transverse shaft sections, laterally extensible brace members, a roller comprising any desired number of roller sections affixed to each other end to end, means for simultaneously rotating the roller and driving one of the wheels of the machine forward, and a transversely disposed marker element, spaced brackets on which the marker element is mounted, said brackets being

laterally slidable on one of the laterally extensible transverse shaft sections, whereby to permit of use of the marker with a laterally extensible frame.

3. In a machine of the class described, the combination of a wheeled frame, laterally extensible transverse shaft sections, laterally extensible brace members, a roller comprising any desired number of roller sections affixed to each other end to end, a sprocket affixed to one of the wheels of the machine, a second sprocket affixed to the corresponding end of the roller of the machine, a third sprocket mounted on an adjustable elevated portion of the frame of the machine, a crank arm on which the aforesaid sprocket is adjustably supported, a chain mounted on and operatively connected with the aforesaid sprockets, and a crank attached to one of the sprockets.

4. In a machine of the class described, the combination of side frames, vertically adjustable edging and smoothing elements mounted on said side frames, laterally extensible transverse shaft members connecting the side frames, stub shafts carrying wheels, said stub shafts being secured to the transverse shafts, upright posts mounted on the laterally extensible shafts, forwardly extending brackets mounted on the front posts, vertically adjustable bearings mounted on said brackets, a roller comprising a plurality of sections rigidly, but detachably, connected to each other, said roller being mounted in the aforesaid vertical adjustable bearings, and means for simultaneously actuating the roller and one of the wheels of the machine.

5. In a machine of the class described, the combination of a wheeled frame, laterally extensible transverse shaft sections, laterally extensible brace members, a roller comprising any desired number of roller sections affixed to each other end to end, the sections of the roller having cement filler ends, one roller having a stub shaft and a threaded stud and the attaching roller having a threaded socket to receive said stud, whereby the rollers may be readily attached to and detached from each other for the addition or removal of any rollers to extend or shorten the operative width of the machine.

6. In a machine of the class described, the combination of a wheeled frame, laterally extensible transverse section members, laterally extensible brace members, and a roller comprising any desired number of roller sections, each of the roller sections having a threaded stub shaft mounted in one end thereof and the next adjacent roller section having a correspondingly threaded socket adapted to be engaged by the threaded stub shaft whereby to securely but detachably fasten adjacent roller sections together.

7. In a machine of the class described, the

combination of a wheeled frame, laterally  
extensible transverse shaft sections, laterally  
extensible brace members, a roller compris-  
ing any desired number of roller sections,  
5 each of the sections having their ends formed  
of a mass of cement, and the ends of adja-  
cent roller sections having a stub shaft  
mounted in one of the roller sections and a  
corresponding socket member mounted in  
the adjacent end of the adjacent roller sec- 10  
tion, the stub shaft and socket being corre-  
spondingly threaded to engage each other  
for the purposes described.

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