

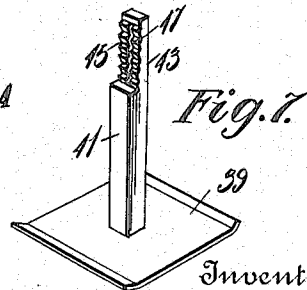
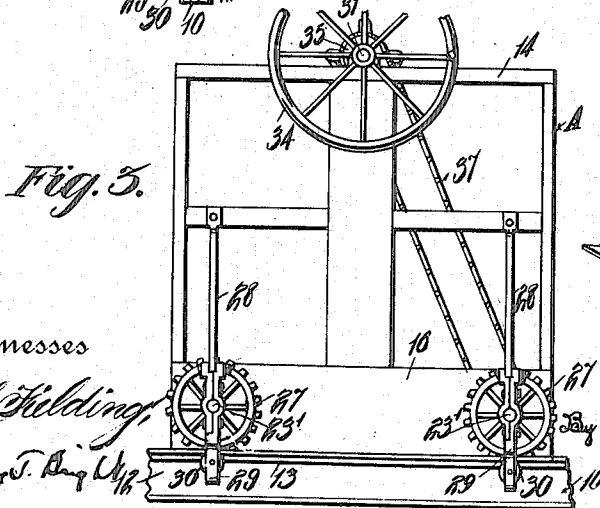
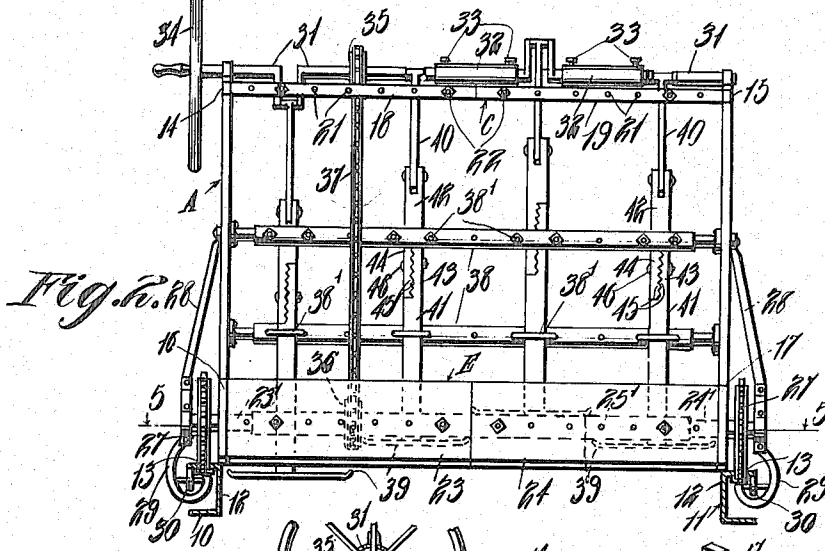
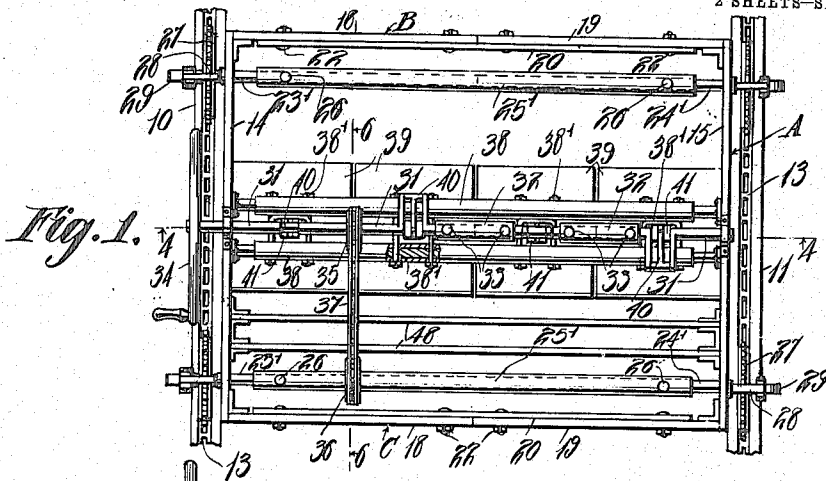
A. J. POWERS.
TAMPING MACHINE.

APPLICATION FILED JUNE 28, 1913.

Patented Feb. 23, 1915.

1,129,230.

2 SHEETS—SHEET 1.



Witnesses

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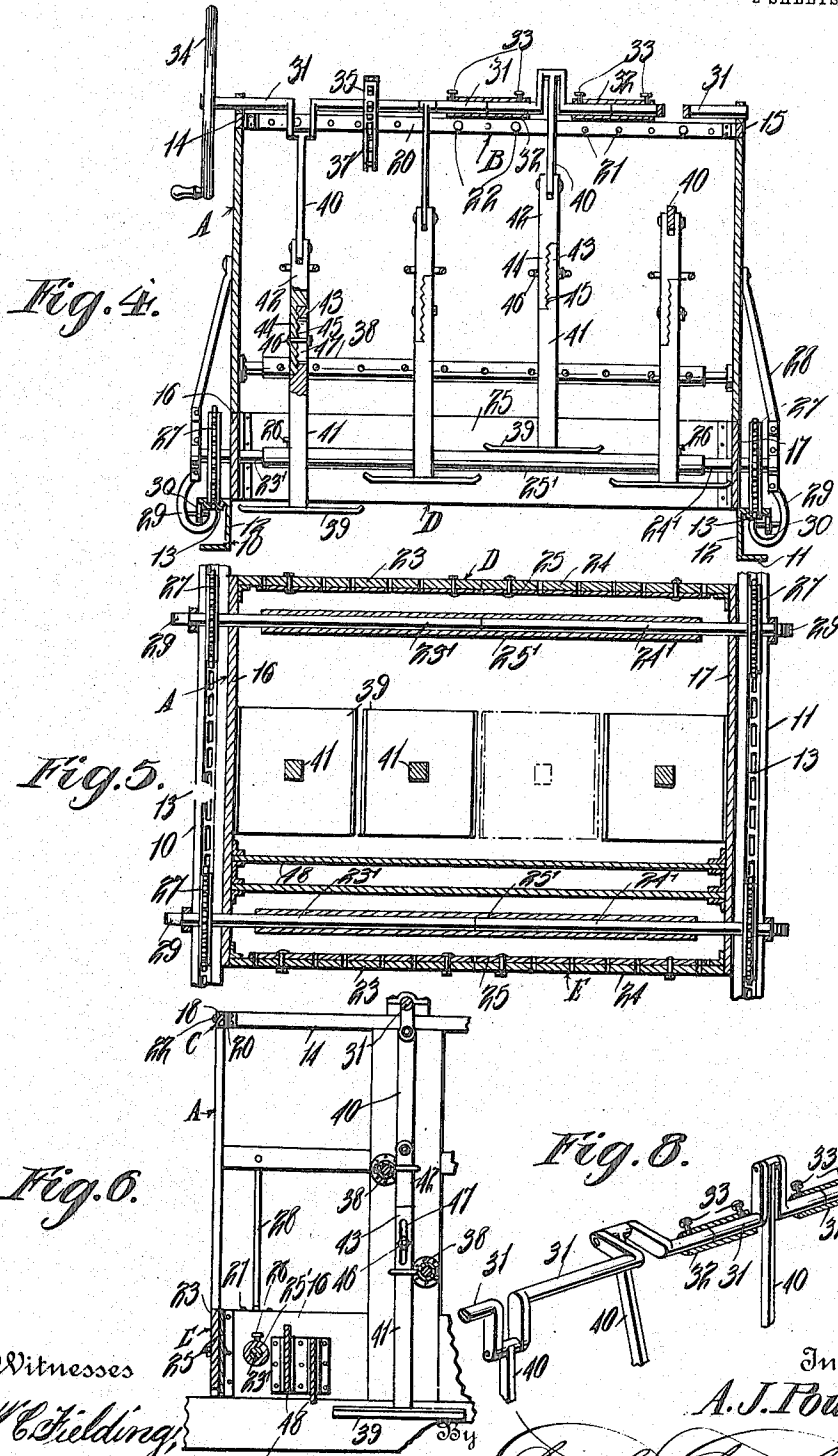
Attorneys

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UNITED STATES PATENT OFFICE.

ANTHONY J. POWERS, OF MERIDIAN, MISSISSIPPI.

TAMPING-MACHINE.

1,129,230.

Specification of Letters Patent.

Patented Feb. 23, 1915.

Application filed June 28, 1913. Serial No. 776,292.

To all whom it may concern:

Be it known that I, ANTHONY J. POWERS, a citizen of the United States, residing at Meridian, in the county of Lauderdale, State of Mississippi, have invented certain new and useful Improvements in Tamping-Machines; 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.

This invention relates to tamping machines for use in connection with the construction of concrete walks and pavements.

The object of the invention resides in the provision of a tamping machine which will enable the material to be tampered with great rapidity and in an efficient manner.

A further object of the invention resides in the provision of a tamping machine which can be expanded and contracted so as to adapt same for use in the construction of concrete walks and pavements of different widths.

A still further object of the invention resides in the provision of a tamping machine which will be simple in construction, durable, easily operated and which may be manufactured at a comparatively small cost.

With the above and other objects in view the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully described and particularly pointed out in the appended claim.

In describing the invention in detail reference will be had to the accompanying drawings wherein like characters of reference denote corresponding parts in the several views, and in which—

Figure 1 is a plan view of a tamping machine constructed in accordance with the invention and shown mounted on the side members of a concrete walk form; Fig. 2, an end view of the machine; Fig. 3, a side view of same; Fig. 4, a section on the line 4—4 of Fig. 1; Fig. 5, a section on the line 5—5 of Fig. 2; Fig. 6, a section on the line 6—6 of Fig. 1 and Fig. 7, a detail perspective view of one of the tampers, and Fig. 8, a perspective view of the operating shaft.

Referring to the drawings 10 and 11 indicate the side members of a concrete pavement form and upon which the machine is

adapted to travel during its operation. The side members 10 and 11 are constructed of angle iron and each includes an outwardly directed upper flange 12 provided with a longitudinal groove 13.

The machine is shown as comprising a frame A which includes upper side members 14 and 15, and lower side members 16 and 17. The frame A further includes upper end members B and C each of which is formed of sections 18 and 19 which are connected together by a plate 20. These sections 18 and 19 and the plate 20 are provided with a plurality of openings 21 certain of which are adapted to register as the sections 18 and 19 are moved longitudinally of the plate 20 so as to permit the insertion of bolts 22 therethrough to secure the sections and plate together. The frame A also embodies lower end members D and E each of which comprises sections 23 and 24 secured together by a plate 25 in a manner similar to the connection between the sections 18 and 19 of the upper end members B and C. By this construction it will be apparent that the frame A may be expanded and contracted according to conditions and requirements.

The frame A is supported upon a pair of axles journaled in the lower side members 16 and 17. Each of these axles comprises sections 23' and 24' which are slidably mounted in a sleeve 25' whereby the axles may be varied in length so as to conform to the contraction or expansion of the frame A. Mounted in each sleeve 25' is a plurality of set screws 26 for the purpose of locking the axle sections 23' and 24' against movement and thus maintaining the axle a given length. Fixed on the outer ends of each of the axle sections 23' and 24' is a toothed wheel 27 which engage respectively in the grooves 13 of the side members 10 and 11 of the concrete form. Extending laterally and downwardly from each side of the frame A in the vertical plane of each of said axles are arms 28 to the outer ends of which are secured U-shaped guide members 29 which rotatably receive the end of the adjacent axle section and are disposed in embracing relation to the flanges 12 of the side members of the walk form. Rotatable in each guide member 29 is a roller 30 which engages the under side of respective flanges 12. These members 29 serve to hold the machine against upward movement during

the operation of same as will be apparent. Journalled in suitable brackets on the upper side members 14 and 15 is an operating shaft which includes a plurality of crank sections 31 connected together by means of sleeves 32 provided with set screws 33. By the use of the sleeves 32 and independent crank sections the length of the operating shaft may be increased and diminished so as to conform to the expansion and contraction of the frame A. Fixed on a terminal crank section 31 outwardly of the upper side member 14 is an operating wheel 34 and also fixed on the same crank section 31 is a sprocket wheel 35 which is connected to a sprocket wheel 36 fixed on one of the sleeves 25', by means of a sprocket chain 37 so that upon rotation of the shaft formed by the crank sections 31 a corresponding rotation will be imparted to one of the axles of the machine so as to cause same to be propelled along the side members 10 and 11 of the walk form. Mounted for vertical movement in eye members 38' carried by cross members 38 are the stems of tampers 39, the number of tampers corresponding to the number of cranks involved in the operating shaft. The upper ends of the stems of the tampers 24 are connected to respective cranks of the operating shaft by means of links 40. The tampers 39 each have their stems formed of sections 41 and 42 the adjacent ends of which are reduced and disposed in overlapping relation as at 43 and 44. The adjacent faces of the ends 43 and 44 of the tamper stem sections are provided with teeth 45 which are adapted to interlock and the end 43 of the section 41 carries a bolt 46 which extends through a longitudinal slot 47 in the end 44 of the section 42

and by this construction the stems of the tampers may be lengthened and shortened to meet requirements.

It will be apparent that upon rotation of the shaft formed by the crank sections 41 the machine will be moved along the side members of the walk form and the tampers 24 will be reciprocated rapidly so as to tamp the material disposed between the side members of the form. Mounted between the lower side members 16 and 17 are spreading boards 48 the lower edges of which are disposed at different elevations. During the movement of the machine these boards 48 will serve to properly grade the material before same is acted upon by the tampers 29 as will be obvious.

What I claim is:—

The combination of a frame having its end members adjustable whereby the width of the frame may be increased and decreased, wheeled axles supporting said frame, means for varying the length of said axles to conform with variations in the width of the frame, a plurality of tampers mounted for vertical movement in the frame, a plural crank shaft journalled on the frame, said shaft being formed of independent sections, connections between said shaft and the tampers whereby the rotation of the former will reciprocate the latter, and connections between the crank shaft and one of the axles whereby the rotation of the crank shaft will propel the machine.

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

ANTHONY J. POWERS.

Witnesses:

J. C. WATTS,

V. W. GILBERT.