J. F. McCOY.

TAMP.

APPLICATION FILED APR. 2, 1912.

1,107,976. Patented Aug. 18, 1914.

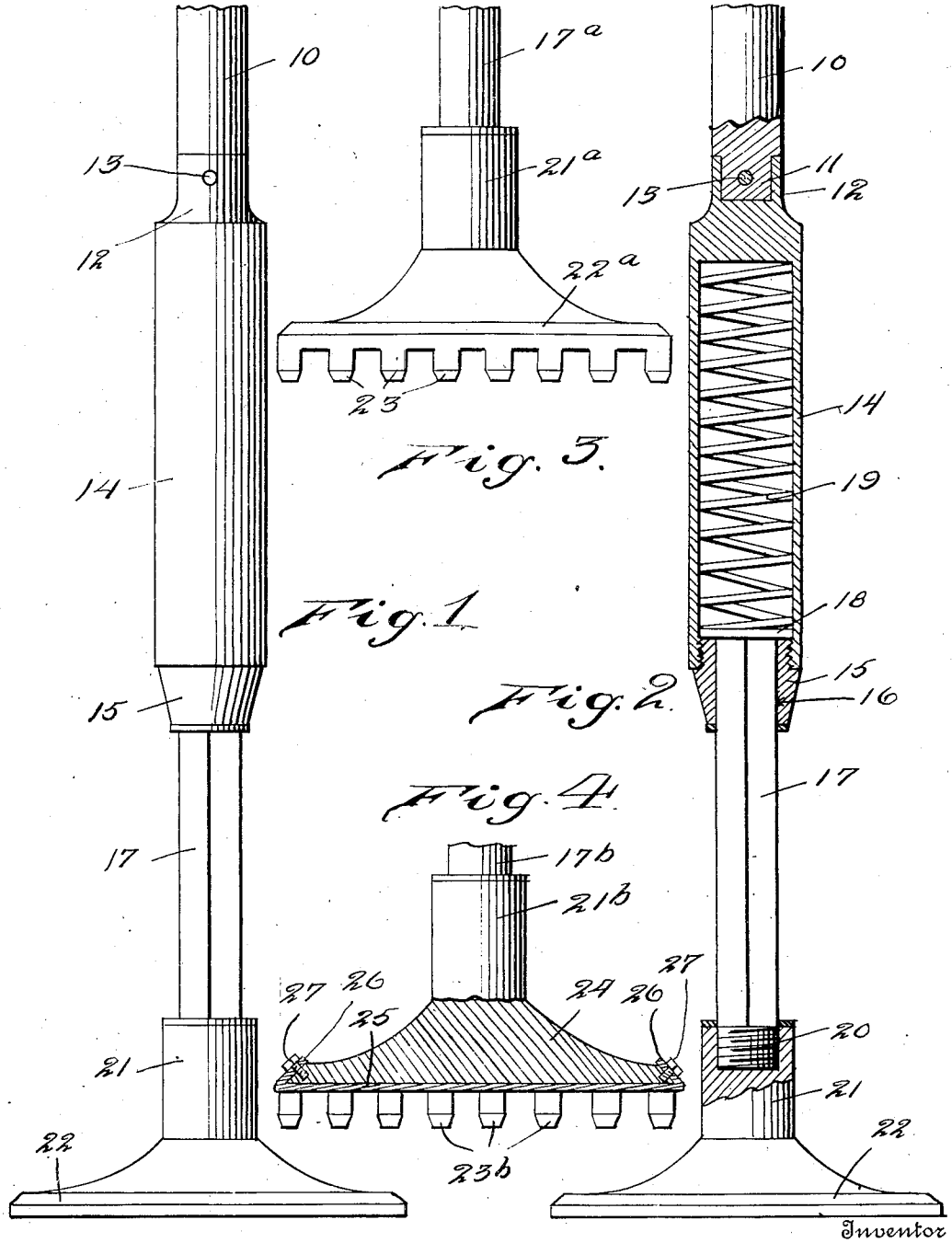


Fig. 3.

Fig. 1.

Fig. 2.

Fig. 4.

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TAMP.

1,107,976. Specification of Letters Patent. Patented Aug. 18, 1914.

Application filed April 2, 1912. Serial No. 688,116.

To all whom it may concern:

Be it known that I, JOHN F. McCOY, a citizen of the United States, residing at 1433 Melpomene street, New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in Tamps, of which the following is a specification.

This invention relates to tamps and is adapted for use in connection with ramming concrete in such manner that a secondary ramming or tamping occurs after the original pressure has been applied to the concrete. The first pressure applied to the tamp penetrates into the concrete mass and drives the larger or stone aggregates while the secondary force drives the tamp through the mass compacting the larger gravel or stone aggregates and forces to the top the finer or cement aggregates. In this manner the necessity of primarily laying the coarse concrete foundation and secondarily laying the top or smooth wearing surface thereof is eliminated. The action of the tamp drives the coarser and heavier concrete to the bottom and sifting or retaining the finer cement at the top.

It has been found in laying concrete walks owing to the present method, namely, placing the concrete base primarily and covering said base with a smooth or fine wearing surface that the top or wearing surface separates from the concrete base causing a space to exist between the wearing surface and the base and cracks to appear in said wearing surface. By the use of the tamp forming the subject matter of the present invention this is entirely eliminated as both the base and wearing surface is a single mass and does not consist of two layers whatsoever.

Another object of the present invention is the provision of a tamp which may either have a smooth bearing surface or a toothed bearing surface as desired.

With the above and other objects in view this invention consists of the construction, combination and arrangement of parts, all as hereinafter more fully described, claimed and illustrated in the accompanying drawings wherein:

Figure 1 is a side elevation of the tamp forming the subject matter of the present invention, illustrating the tamping plate as flat or smooth. Fig. 2 is a similar view, parts thereof being broken away to illustrate the elements of said tamp. Fig. 3 is a side elevation of the parts of the tamp, illustrating the corrugated or toothed tamping plate. Fig. 4 is a fragmentary transverse section of a modified form of the present invention illustrating a tamp having a toothed tamping plate detachably secured thereto.

Reference being had more particularly to Figs. 1 and 2, 10 indicates the rod or handle of the tamp whereby force is applied thereto, said rod or handle being attached to a machine or operated by hand as desired. The lower terminal of this rod is reduced as at 11 and is received within a socket 12 being retained in such socket by a transversely arranged pin 13. This socket 12 carries a sleeve 14 the lower terminal of which is internally threaded and receives a tapered collar 15, said collar having rectangular passes 16. A plunger rod 17 rectangular in cross section reciprocates in the passes 16 of the collar 15 and is provided at its upper terminal with a head 18 which is located within a sleeve or cylinder 14. This head is equal in diameter to the diameter of the sleeve or cylinder 14 and rests against the collar 15 and is thus retained in its operative position. A spiral spring 19 is interposed between the upper terminal of the sleeve or cylinder 14 and bears against the head 18 said spring normally turning to force the plunger rod 17 from the cylinder or sleeve 14. The lower terminal 20 of the plunger rod 17 is circular and threaded and is adapted to be received in a socket 21 carrying a flat smooth tamp plate 22.

From the foregoing it will clearly be understood that as a pressure is applied to rod 10, the cylinder or sleeve 14 will owing to the resiliency of the spring 19 travel upon the plunger rod 17 when the tamping plate 22 contacts with the concrete. The contraction of the spring 19 to do this movement will cause the tamping plate to be driven into the concrete as said spring expands and a continued pressure is applied to the rod 10, thus retaining the rod 10 stationary and permitting the spring to impart an additional force to the tamp.

Referring now to Fig. 3, 17^a indicates a plunger rod identical with the rod 17, threaded into socket 21^a which carries a tamping plate 22^a. This plate has formed integrally therewith from the under surface thereof a number of teeth or corrugations 23 which contact with the concrete upon the use of the tamp. Other than this the op-

eration of the tamp is identical with Figs. 1 and 2.

Referring to Fig. 4, the rod 17^b is similar to the rods 17 and 17^a and is threaded into the socket 21^a which carries a plate 24. The opposite sides of this plate are beveled. The tamp bearing plate 25 is secured to the plate 24 by means of the oppositely disposed flanges 26 which engage the inwardly beveled sides of plate 24. These flanges are retained in a stationary position to prevent the displacement of the plate 25 by means of the screws 27 which bears the flange 26 and the beveled sides of the plate 24. The plate 25 is provided upon its under surface with the corrugations or teeth 23^b which contact with the concrete as the tamp is operated. The serrated or toothed construction of the tamping plate is such that upon the first application of pressure to the rods 10^a or 10^b the teeth will drive into the concrete forcing the large or coarse aggregates thereof to the bottom to form a base while the finer aggregates remain at the top or between the teeth 23.

Having thus fully described my invention, what I claim as new and desire to secure by United States Letters Patent is:

A hand tamping implement consisting of a cylindrical sleeve having a reduced socket in one terminal, a handle secured in said socket, said sleeve being open at its other end and provided with internal screw threads, a collar having a reduced threaded portion engaging the threads of said sleeve and provided with a rectangular opening therein, a rectangular plunger mounted in said collar opening and having an annular head thereon operating within the cylindrical sleeve, a tamping plate secured to the outer end of the plunger and removable therefrom and a coiled spring interposed between the annular head of the plunger and the opposite terminal of the sleeve.

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

JOHN FRANCIS McCOY.

Witnesses:

JOHN A. McCOY,

A. J. McCOY.