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V. S. VAUGHAN.
METHOD OF CONSTRUCTING CONCRETE WALLS.
APPLICATION FILED OCT. 12, 1906.

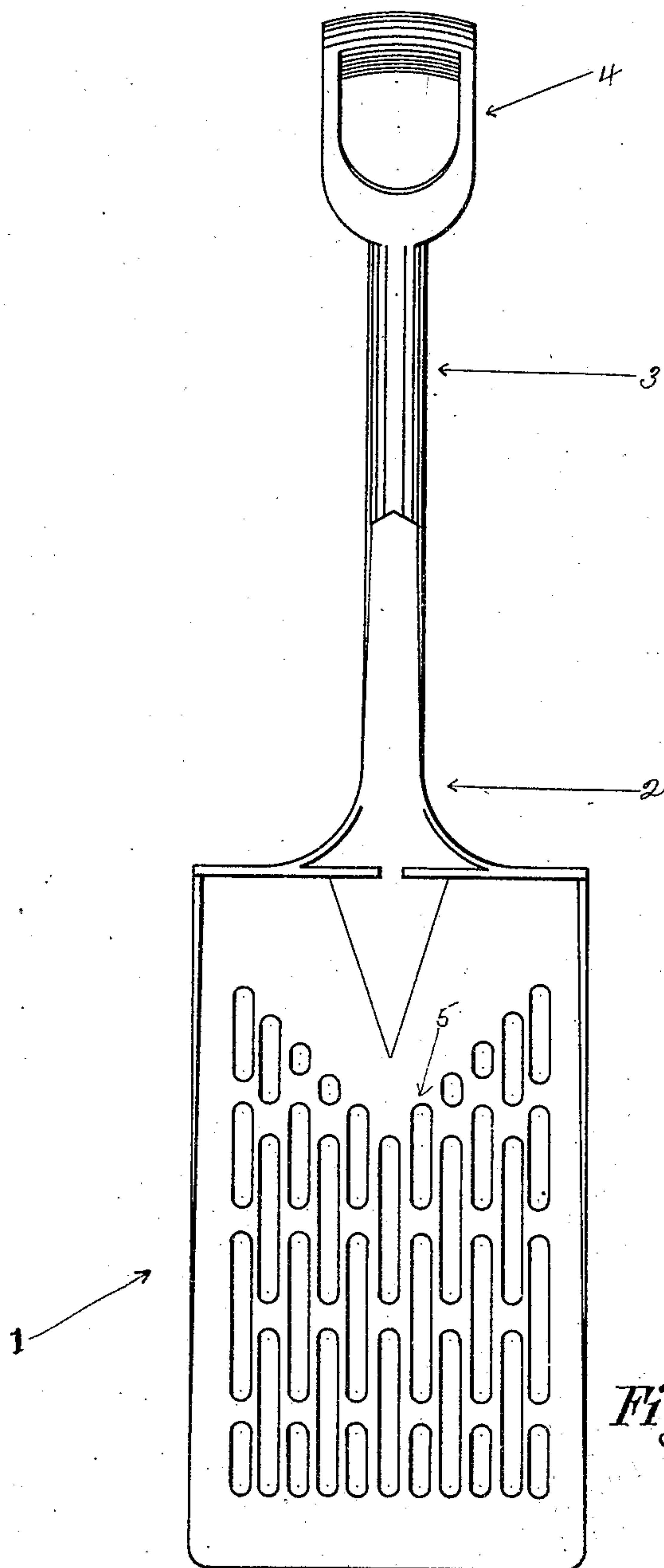


Fig-1-

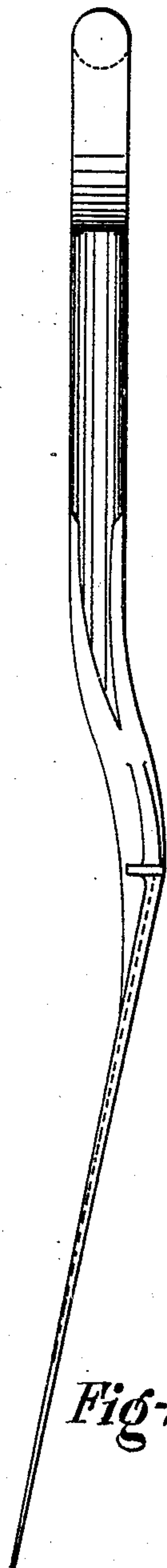


Fig-2-

WITNESSES:

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METHOD OF CONSTRUCTING CONCRETE WALLS.

No. 841,829.

Specification of Letters Patent.

Patented Jan. 22, 1907.

Application filed October 12, 1906. Serial No. 338,601.

To all whom it may concern:

Be it known that I, VINCENT SULVESTER VAUGHAN, a citizen of the United States, residing at 1047 Washington Boulevard, Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in a Method of Forming Concrete Walls, of which the following is a specification.

My invention has relation to methods of forming concrete walls to be used in the manufacture of concrete buildings, and has for its object the method of using a tool designated as a "finishing-tool or spade," by means of which the concrete mass can be separated while in position in the building form and the finer portion of the agglomerate is forced or caused to flow toward the sides of the form, so as to give a finer finish to the completed buildings than would be otherwise presented.

In the manufacture of concrete buildings the usual and well-known method of forming the same is to erect a series of hollow frames, which are called "blocks" or "forms," and to fill the same with a plastic mass composed of sand, cement, and rubble, with a sufficient quantity of water.

The proportion of this mass varies according to the requirements of the building; but in all cases there is a certain proportion of gravel or broken stone, which as far as possible it is desirable should not appear upon the finished surface, and many efforts have been made to confine this rougher portion of the mass to the center of the wall—as, for instance, by using what is called a "skeleton" or "false" frame and filling in the space between this false frame and the ordinary form with a concrete mixture containing no gravel or rubble and filling in the central portion with the ordinary concrete mixture and then removing the skeleton frame and tamping the two masses of concrete into a single block.

It will be readily seen that this is not alone a slow but also an expensive means of reaching the desired end, and by the use of my improved method the work of construction is not alone expedited, but the resulting structure is better in every way.

My invention consists, broadly, in the provision of a method whereby after the concrete mass has been placed in position in the form the coarser portions of the mass, such as gravel or rubble, can be readily drawn toward

the center of the wall and the finer particles, consisting of the sand and cement, forced outward, so as to form the front or finish of the structure. In fact, by the use of my method the fine and coarse material forming the base of the concrete can be readily separated and distributed to any desired portion of the structure.

My invention still further consists in the method of forming concrete walls with a tool which I call a "concrete spade-finisher," whereby after the concrete mass is in position its heavier elements may be separated from its lighter and finer elements.

My invention still further consists in the provision of a spade having its blade or body provided with perforations of any desired size to permit of the passage therethrough of predetermined portions of the concrete mass.

My invention still further consists in the method of constructing concrete walls more fully described hereinafter and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a front view, and Fig. 2 a side view, of my improved spade.

The blade or body 1 is of the ordinary size and shape or of any desired size and shape, made in the usual manner and formed with the neck 2 for the reception of the handle 3, which is, if so desired, finished with a handle hole 4.

The blade 1 is formed with perforations 5, which may be of any desired shape, such as round, square, or elongated, the size and shape of the perforation depending upon the character of the work to be done.

In forming a wall by my improved method the concrete mass is placed in the ordinary manner in the form and the perforated spade driven down between the mass and the inside of the front portion of the form. The spade is then drawn toward the center of the concrete mass, the finer portion of the concrete passing through the perforation in the spade and the coarser portion being drawn toward the center, when the spade is withdrawn, leaving the concrete with the finer portion toward the front and the heavier portion drawn toward the center, or, if necessary, toward the back wall.

Having thus described my invention, what I declare as new is—

1. The method of forming concrete walls

consisting in separating the different particles of the mass after the same has been placed in position.

2. The method of forming concrete walls
5 consisting in separating the different particles of the mass after the same has been placed in position and forcing the coarser particles away from the front of the wall.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

VINCENT SULVESTER VAUGHAN.

Witnesses:

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LUTHER C. VAUGHAN.