R. H. CHAPPELL.

DEVICE FOR POINTING BRICK WALLS.

APPLICATION FILED OCT. 27, 1913.

1,142,022.

Patented June 8, 1915.

Fig. 1.

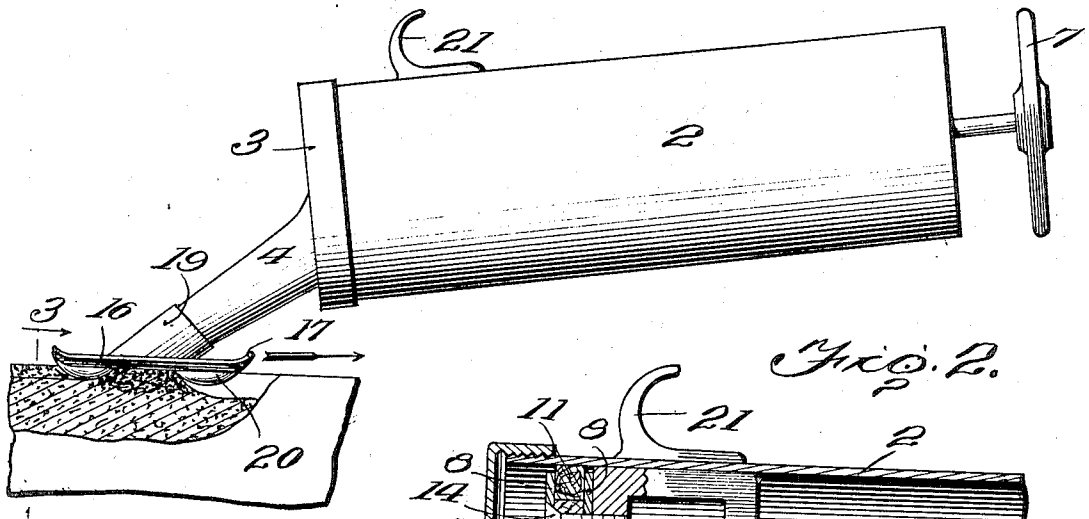


Fig. 2.

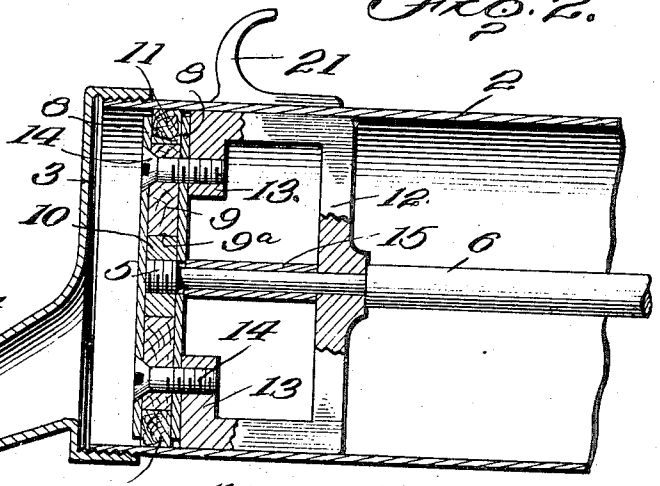


Fig. 3.

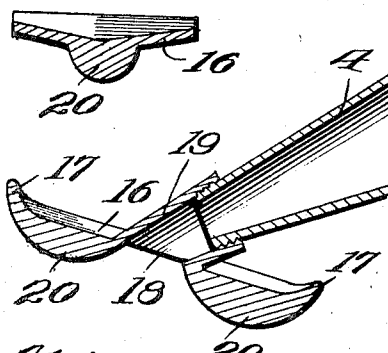


Fig. 4.

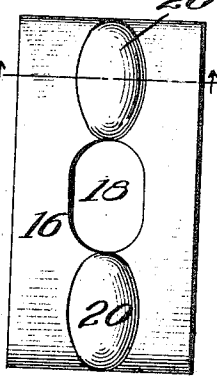


Fig. 5.

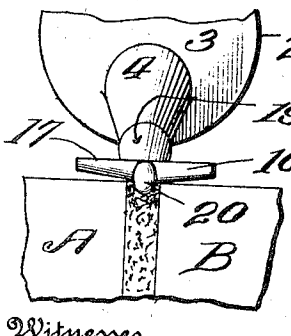
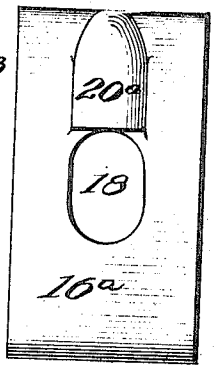
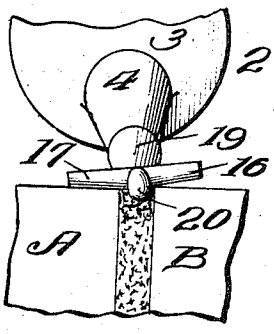


Fig. 6.





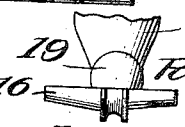


Fig. 7.

Witnesses

Floyd R. Cornwall.

Inventor

R. H. Chappell.

By

Attorneys.

UNITED STATES PATENT OFFICE.

RICHARD H. CHAPPELL, OF ROLLA, MISSOURI.

DEVICE FOR POINTING BRICK WALLS.

1,142,022. Specification of Letters Patent. Patented June 8, 1915.

Application filed October 27, 1913. Serial No. 797,681.

To all whom it may concern:

Be it known that I, RICHARD H. CHAPPELL, a citizen of the United States, residing at Rolla, in the county of Phelps and State of Missouri, have invented certain new and useful Improvements in Devices for Pointing Brick Walls, of which the following is a specification.

My invention relates to bricklayers' tools and appliances, and particularly means for pointing up brick walls.

The primary object of my invention is the provision of a very simple and readily manipulated device whereby the seams between the bricks of a wall may be pointed up and filled with mortar, cement or like semi-fluid material.

A further object is the provision of a device of the character described embodying a tuck trowel and a mortar holder, with means for forcing the mortar into a seam between the bricks of a wall.

A further object of the invention is to provide an improved form of piston for the mortar carrier, this piston being so constructed that it will be properly guided in the mortar carrier and not be liable to slide unequally.

A further object of the invention is to so construct the trowel that it will tuck, smooth, and compact the mortar between the bricks.

A further object is to so form the piston that the packing around the periphery may be readily applied or removed, when desired. Other objects will appear in the course of the following description.

My invention is illustrated in the accompanying drawings, wherein:—

Figure 1 is a side elevation of my improved implement as applied to pointing up the seam between two courses of brick, the brick being broken away, to show the manner in which the mortar is applied. Fig. 2 is a longitudinal sectional view through my device. Fig. 3 is a vertical section on the line 3—3 of Fig. 1. Fig. 4 is a like view to Fig. 3, but showing the manner in which the pointing device is used when the bricks of two courses are not flush with each other. Fig. 5 is an under side view of one form of trowel. Fig. 6 is a like view to Fig. 5 but showing another form of trowel. Fig. 7 is a front view of a trowel having a beading lug, or tuck upon its under face. Fig. 8 is a transverse section across the trowel on the line 8—8 of Fig. 5.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawings by the same reference characters.

Referring to these drawings it will be seen that my improved pointing device consists of a receptacle or mortar carrier designated 2, this receptacle in the embodiment of my invention illustrated being circular in cross section. The forward end of the receptacle is screw-threaded or otherwise formed so as to engage with a cap 3. From this cap projects a discharge tube 4, which tube is illustrated as gradually contracted toward its outer end. The outer end of the tube is adapted for engagement with a trowel as will be later described. The end of the receptacle 2 opposite the cap 3 is open and disposed within the cylindrical receptacle 2 is a piston 5 of any suitable or ordinary form from which extends the piston rod 6. This piston rod projects beyond the open end of the receptacle 2 and is provided at its extremity with a handle 7.

As illustrated, the piston comprises the spaced disks 8, which preferably are made of sheet metal, and an intermediate wooden disk 9 having a central square or many sided opening 9^a within which is disposed a nut 10. The disk 9 is smaller in diameter than the disks 8 to provide for a packing 11 which may be wrapped around the peripheries of the disk 9. I find it convenient to form this packing of cloth or tape. It will be obvious that other packing may be used. This packing may be readily removed from the piston, if it is necessary at any time, and as readily renewed. Leather disks used between the metallic disks 8 would soon become hard and burnt and would readily cut out. The cloth wrapping, however, remains soft and pliable, and if by chance a grain of sand were caught between the edge of the packing and the metal cylinder, the sand would be pressed into the cloth and thus would not scar the cylinder.

In order to provide a guide for the piston which will hold the piston in position at right angles to the axis of the receptacle 2, I mount upon the rod 6 a spider 12 having a plurality of radially directed arms each at its outer end, being bent parallel to the wall of the receptacle 2. The extremity 13 of each of these parallel portions are bent at right angles so as to abut against the inner face of the piston. The screws 14 pass

through the piston holding the several disks together and enter the feet 13, or inwardly turned portions of the spider. The extremity of the rod 6 is screw threaded for engagement with the nut 10, while a sleeve 15 spaces the center of the piston from the center of the spider.

Mounted on the end of the discharge tube 4 is a trowel plate 16. This consists of a plate of metal of any suitable shape, but preferably rectangular. The forward and rear extremities of the trowel plate are turned upward as at 17 and the trowel plate is slightly angular in cross section, as illustrated in Fig. 8. This slight angularity of the trowel plate transversely is of particular importance, as will presently appear.

The trowel plate is formed with an aperture 18 at its center from which extends an upwardly and rearwardly inclined socket 19. This socket engaged with the tube 4 by means of screw threads, or has a slip joint engagement with the tube 4.

The under side of the trowel plate 16 is provided with one or more mortar pressers or tucks, designated 20. In Fig. 5, two of these tucks 20 are shown, while in Fig. 6, only one is illustrated, this one being designated 20^a. Each tuck preferably consists of a nearly semi-circular lug or protuberance formed upon the under face of the trowel, and where two tucks are used they are disposed one at each end of the elongated perforation 18. Preferably each tuck or presser is tapered from the middle toward its opposite ends so that the tucks are somewhat elliptical in form. The tucks may either have a uniformly rounded surface or a faceted surface, as preferred. These pressers or tucks are of such diameter that they will readily fit in the seam between two courses of brick and will travel along this seam. Preferably the width of each tuck is smaller than the width of the seam, ordinarily to be found in brick work. The tucks act to press and smooth the mortar or cement discharged into the seam through the aperture 18. It is of course obvious that the shape of the trowel 16 and of the pressing members 20 may be changed in form to suit the exigencies of any particular piece of brick work, and that a plurality of trowels might be used interchangeably upon the tube 4 so as to adapt the device to all forms of work. A thumb-piece 21 is disposed upon the side of the receptacle 2 for convenience in manipulating the latter.

In Fig. 6 I show a trowel 16^a having the same form as the trowels previously described, but provided with a presser or tuck 20^a at its forward end only. In Fig. 7, I show a trowel having another form in which the pressing lug or tuck is concavely rounded in cross section so as to form a beader.

The operation of my invention will be obvious from what has gone before. When it is desired to point up the seams between courses of brick, the receptacle 2 is filled with mortar by removing the piston therefrom and the piston is then replaced. The proper trowel, of course, has been applied to the discharge tube 4. The pressing members or tucks 20 are inserted in the seam between the bricks and as the piston is forced gradually inward, the device is reciprocated along the face of the brick, the trowel 16 forming a retainer bearing against the face of the brick and supporting the device in proper position relative to the brick while the members 20 guide the device along the seam, at the same time acting to press down and smooth the mortar or other semi-fluid material discharged from the receptacle 2.

The members 20 act to press and compact the mortar discharged beneath the trowel and form a smooth pointing surface extending entirely along the seam. The mortar, of course, fills the space between the inner ends of the pressing members 20, and when the trowel is pushed or pulled along the seam it will leave a round or hollow seam without sharp corners regardless of the width of the seam. If the edges of the brick are chipped, the mortar will flow or be forced into these chipped edges, thus filling up all rough places.

As before stated, the trowel is slightly angular in cross section. The purpose of this angularity is illustrated clearly in Figs. 3 and 4, and is to adapt the trowel to be used for pointing up the seams between courses of brick which will not aline with each other.

In Fig. 4 is shown a case where the course A is lower than the course B. If the trowel were flat upon its under face the trowel would be inclined so that only one edge of the trowel would contact with the course A. As a consequence the mortar would escape into the space between the trowel and the edge of the brick, but by having the under face of the trowel angular, however, the trowel may be tilted to the position shown in Fig. 4 so that one lateral side face of the trowel will lie flat against the course A, while the corner of course B will contact with the opposite face of the trowel. Where the courses are level, as in Fig. 3, the trowel is disposed on a level and not inclined. This allows the edges of the brick to press tightly against the under face of the trowel regardless of the width of the mortar between the brick, and this prevents the mortar from oozing out onto the face of the brick. The construction of the trowel shown in Fig. 6 is for the purpose of leaving the mortar flush with the face of the brick. In this case the lug 20^a is merely a guide lug.

My invention is very simple and

thoroughly effective for the work desired to be done. It is particularly adapted to pointing up old walls from which the mortar has fallen away from the seams and will permit the work to be done very much more expeditiously than is possible by the hand pointing in use today. It is also to be noted that by providing tucking beads or lugs at each end of the trowel plate the trowel may be either reciprocated or pushed in either direction in order to point up the mortar. This construction therefore permits the operator to start in a corner to fill up the point between the courses of brick.

While I have illustrated what I believe to be the best form of my invention, I do not wish to be limited to this as it is obvious that many changes might be made therein without departing from the spirit thereof.

Having thus described the invention what is claimed as new is:—

1. A pointing device of the character described including a trowel plate having a discharge aperture, alining members disposed on the under side of the trowel plate forward and rearward of said aperture, said members being tapered toward the adjacent ends of the trowel plate and adapted to engage in the seam between two courses of brick, a mortar receptacle communicating with the aperture in the trowel plate, and means for discharging mortar from said receptacle.

2. A pointing device of the character described including a trowel plate having a discharge aperture and less in width than the trowel plate, alining members disposed on the under side of the trowel plate forward and rearward of said aperture, said members being rounded in cross section and tapered toward their opposite ends.

3. In a pointing device of the character described, a trowel plate having a perforation through which mortar may be discharged, a medially placed guide on the outer face of said trowel plate in a line with said perforation, said trowel plate extending upward and outward on each side of a median line.

4. A pointing device of the character described, including a trowel plate having a discharge aperture, a guide member disposed on the under face of the trowel plate in line with said aperture and adapted to engage in the seams between two courses of brick, said trowel plate being slightly angular in cross section to provide portions extending upward and outward on each side of a median line, a mortar receptacle communicating with the aperture in the trowel plate, and means for causing the discharge of mortar from said receptacle.

5. In a pointing device of the character described, a trowel plate having a perforation for the discharge of mortar, and a pressing member arranged upon the outer face of said plate, said plate being provided with angularly disposed faces diverging from said pressing member upon opposite sides thereof.

6. In a pointing device of the character described, a trowel plate having a perforation for the discharge of mortar, and a pressing member arranged upon the outer face of said plate, said pressing member being rounded in cross-section and said plate being provided with oppositely inclined faces diverging from said pressing member upon opposite sides thereof.

7. In a pointing device of the character described, a trowel plate having a perforation for the discharge of mortar, said plate being adapted to bear over a seam between two courses of brick upon opposite sides thereof, and having oppositely inclined faces disposed to normally engage the contiguous edges of the bricks adjacent said seam at points adjacent the median line of the plate, and a pressing member formed on the outer face of said plate and disposed to engage in said seam.

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

RICHARD H. CHAPPELL. [L. S.]

Witnesses:
M. F. GILL.
W. D. JONES,