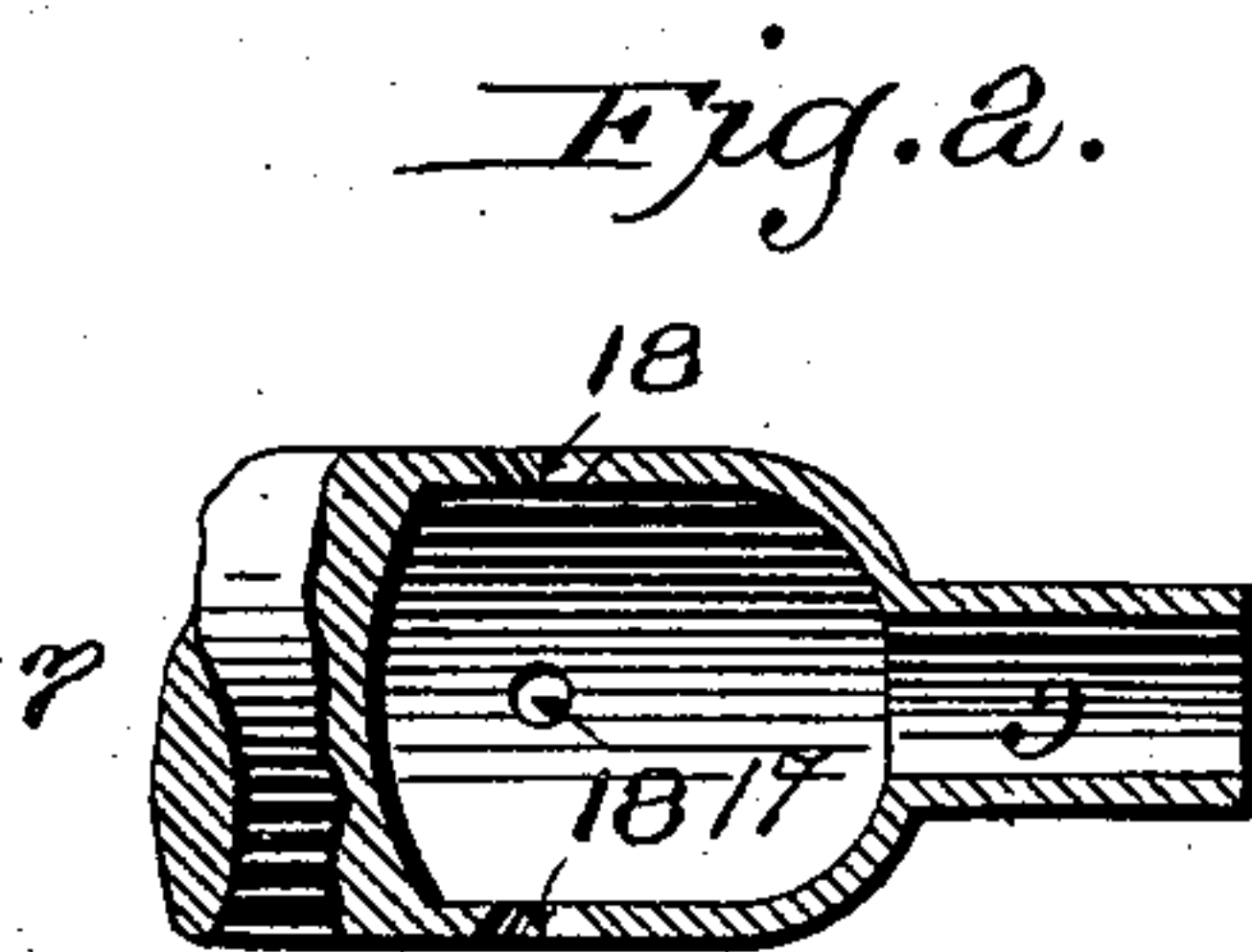
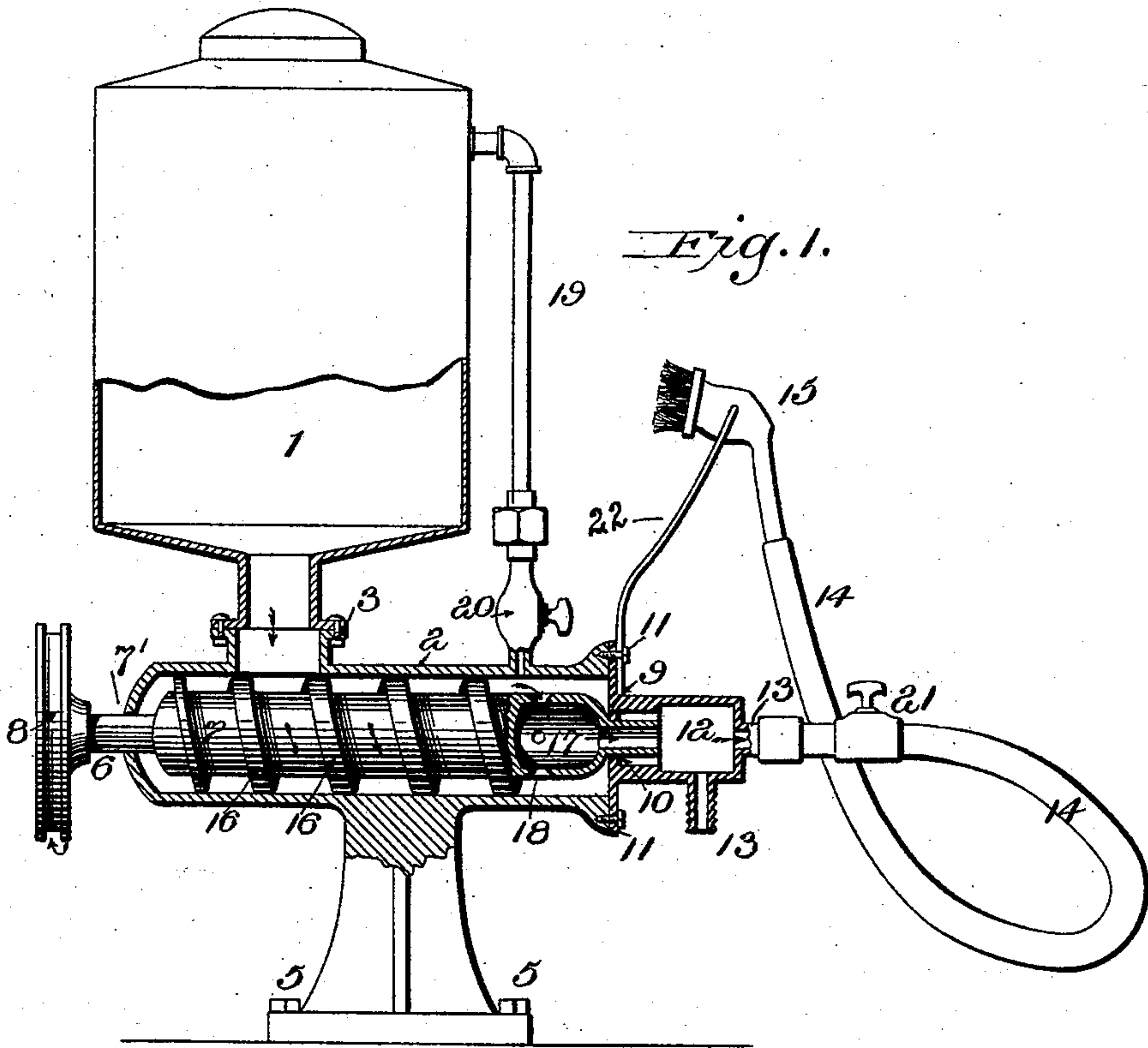


(No Model.)

H. M. CUSHING, H. F. BROWNE & J. STOWELL.  
CEMENTING APPARATUS.

No. 532,645.

Patented Jan. 15, 1895.



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# UNITED STATES PATENT OFFICE.

HARRY MONROE CUSHING, HENRY FRANKLIN BROWNE, AND JOHN STOWELL, OF FREEPORT, MAINE; SAID BROWNE AND STOWELL ASSIGNORS TO SAID CUSHING, TRUSTEE.

## CEMENTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 532,645, dated January 15, 1895.

Application filed March 30, 1894. Serial No. 505,769. (No model.)

*To all whom it may concern:*

Be it known that we, HARRY MONROE CUSHING, HENRY FRANKLIN BROWNE, and JOHN STOWELL, residing at Freeport, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Cementing Apparatus; and we do 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

Our invention relates to apparatus for the applying of cement, either in heated or cold form, to such surfaces as can be coated with a brush, and in which a constant supply is provided for the said brush by special mechanism.

With reference to the accompanying drawings: Figure 1 represents a side view of the apparatus, partly in perspective or elevation and partly in section. Fig. 2. represents an enlarged sectional view of the worm or screw shown in Fig. 1.

In each view the same figures represent the same parts throughout.

1 represents the reservoir into which the cement is placed and which is heated by some simple device when it is so desired. This reservoir is placed above an elongated cylindrical chamber 2 and is fastened to the same at collar flanges 3. The elongated chamber 2 rests upon a pedestal 4, which latter is firmly fastened to a bench or table by bolts 5, 5. The chamber 2 also is provided at one end with a hole 6 which is a bearing for the shaft 7 at its journal 7'. The end of the said journal 7' which extends outside of the chamber 2 is fitted with a grooved pulley 8, this pulley being for the purpose of transmitting a circular motion to the shaft 7. The other end of the shaft 7 is also provided with a journal 9 which rests in a hole in the end plate 10, this latter being firmly fastened to the cylinder 2 by set screws 11, 11. This end plate 10 has fastened to it or is integral with a small cylindrical chamber 12, the latter being provided with outlets 13, 13, in any num-

ber that may be desired, and to which outlets are attached flexible tubes 14, carrying applying brushes 15 which may be held upon support 22.

The shaft 7 has about it the worm thread 16, which beginning near the pulley end of the said shaft, ends near the other end thus forming a worm or screw. This worm or screw fits snugly the chamber 2, and in its rotation carries whatever may enter the said chamber from the one end to the other. The shaft 7 at its end opposite the pulley is peculiar of construction. It contains a chamber 17 which opens into chamber 12 through a passage in journal 9, and which communicates with chamber 2 through holes 18. At a point in the upper wall of the chamber 2, and between the extremity of the worm thread 16 and the end plate 10 a passage leads through the said wall, through the tube 19, and into the top portion of the reservoir 1. Stop cocks are placed in the tube 19 at 20, and in the flexible tubes 14, as at 21.

We will now describe the operation of our apparatus, and will then define our invention in the claims hereinafter to be made.

Cement in any desirable quantity is placed in the reservoir 1, and as has already been stated, may if desirable be heated. By following the course of the arrows, it will be noticed that the cement passes by its own weight into the chamber 2 and is engaged by the worm or screw thread 16 and pressed forward, such power being derived from the pulley 8 which revolves at a desirable speed. When the cement reaches the end plate 10, it can follow two paths, viz: enter the holes 18, chamber 17, pass through shoulder 9 into chamber 12, and from thence be distributed through the flexible tubes 14 to brushes 15 and to the work; or the alternative path which the cement may follow is to enter tube 19, and pass again into the reservoir 1. Stop cocks 21 regulate the flow of cement at the brushes 15, and the one at 20 regulates the return flow of cement to the reservoir 1.

Having described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A cementer comprising a cement tank



communicating with a chamber having a revoluble worm-feeding mechanism, conduit from the said chamber with an applying brush upon its end, and a means for revolving the said  
5 revoluble worm-feeding mechanism, substantially as described.

2. A feed mechanism for cementers, comprising an elongated cylindrical feed-chamber, a revolubly journaled worm fitting the  
10 same, a chamber in one end of such worm-shaft, openings from the feed-chamber to the shaft-chamber, and an axial passage in one

journal from said shaft-chamber, substantially as described.

In testimony whereof we affix our signatures in presence of witnesses.

HARRY MONROE CUSHING.  
HENRY FRANKLIN BROWNE.  
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Witnesses:

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