

(No Model.)

C. ROSS, Jr.

PAINT MIXER.

No. 316,487.

Patented Apr. 28, 1885.

Fig. 1.

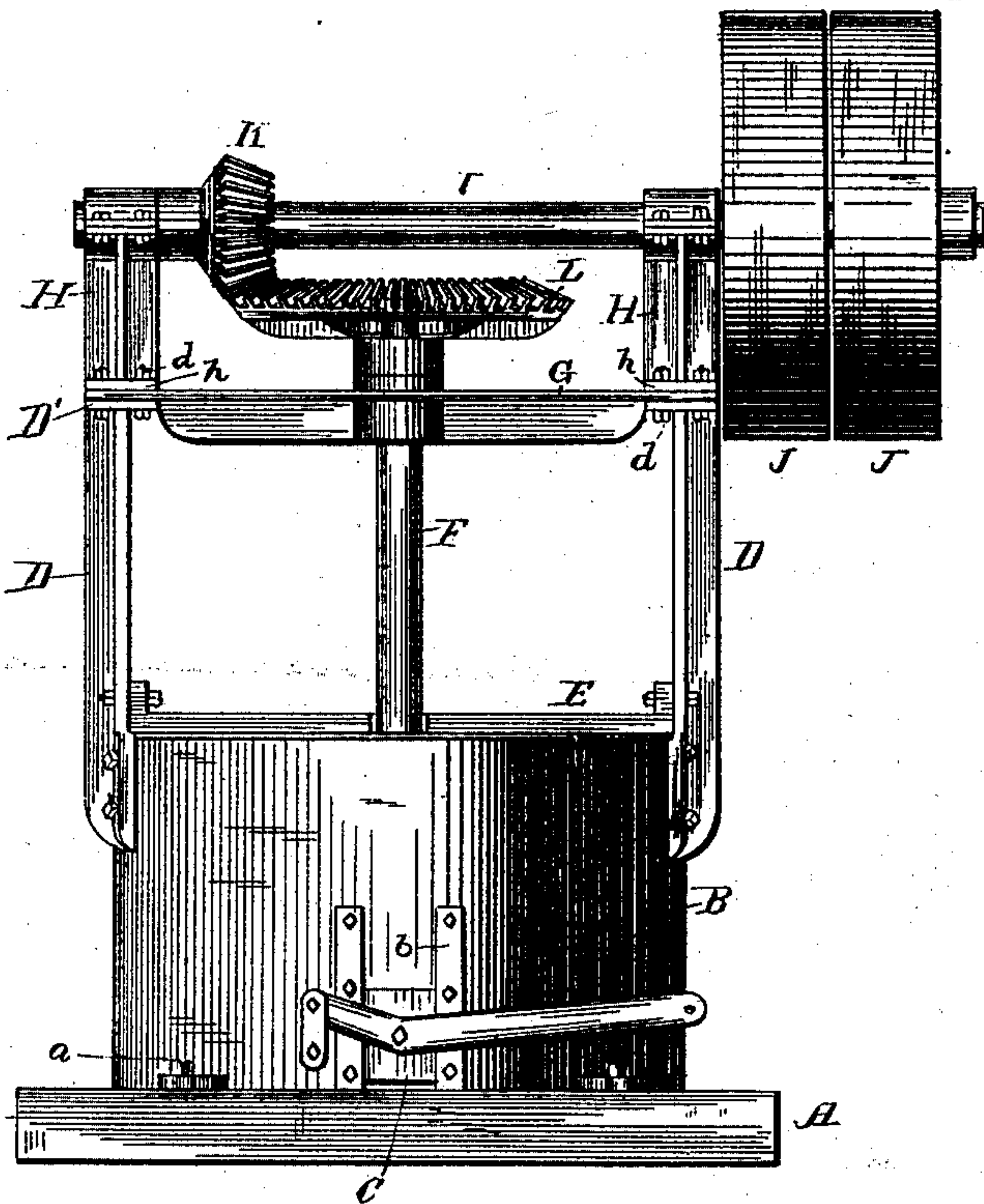
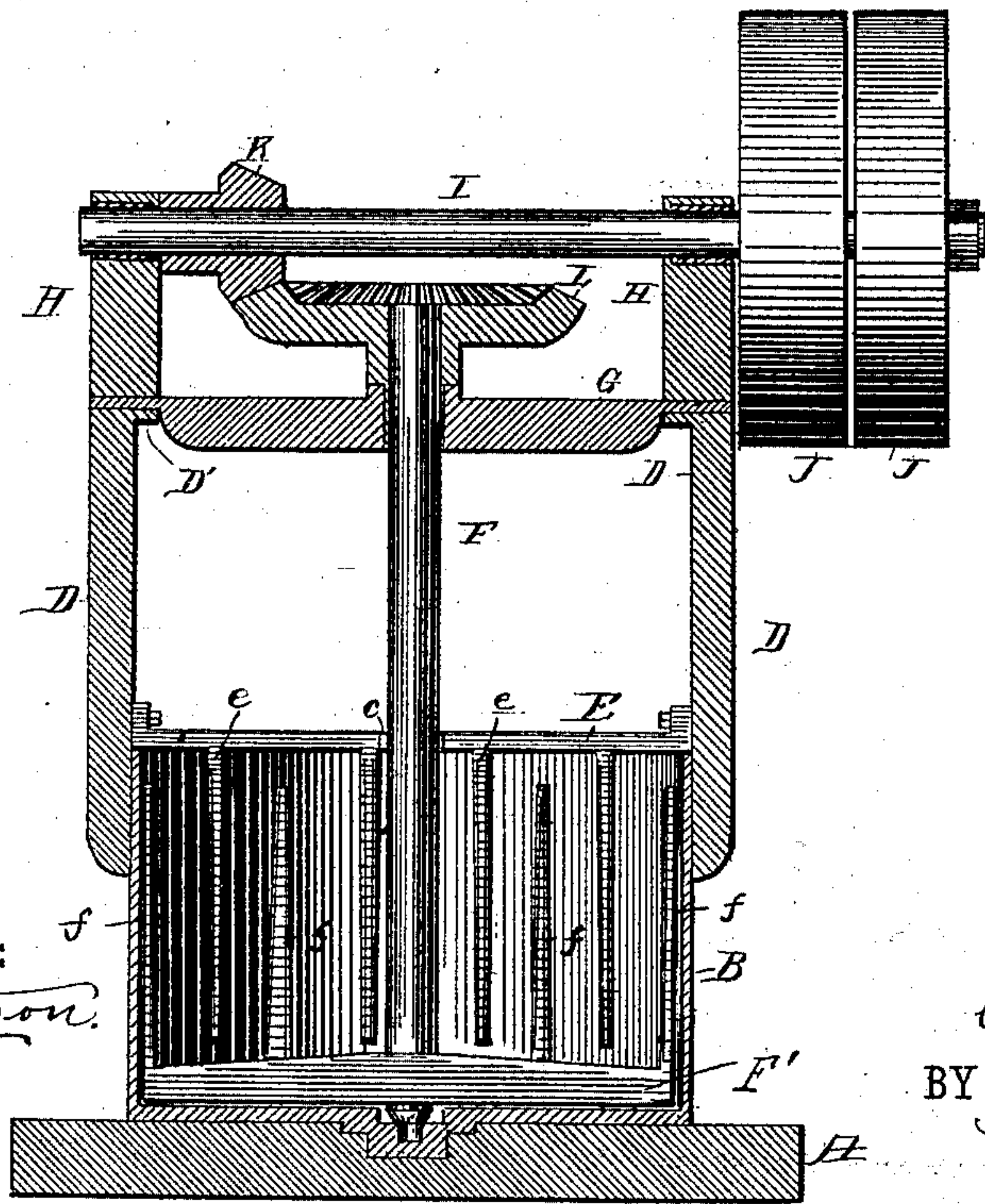


Fig. 2.



WITNESSES:

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CHARLES ROSS, JR., OF BROOKLYN, NEW YORK.

## PAINT-MIXER.

SPECIFICATION forming part of Letters Patent No. 316,487, dated April 28, 1885.

Application filed December 30, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES ROSS, Jr., a citizen of the United States of America, residing at Brooklyn, E. D., in the county of Kings and State of New York, have invented certain new and useful Improvements in White-Lead and Paint Mixers, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to an improvement in white-lead and paint mixers for mixing pigments with oil or other materials.

It has been the custom heretofore to secure the tub to one floor of a building while the supports for the driving-shaft, gearing, and drive-pulleys have been secured to the floor above, necessitating the employment of skilled labor and a great loss of time to put in proper position and adjustment for the mixing process. Besides, it very often happens that the ceiling or roof of a building is not strong enough to support the driving-shaft and its attachments. To overcome these defects I have invented a portable mixer which can be readily set up by unskilled labor on any ordinary floor; and my invention consists in the peculiar combinations and the construction and arrangement of parts by which these ends are accomplished, as hereinafter more particularly described and claimed.

In the accompanying drawings, which form a part of this specification, Figure 1 is a side elevation of my improved portable mixer, and Fig. 2 a central vertical section of the same.

Referring now to the details of the drawings, A represents the floor, to which the tub B is securely fastened by any suitable means, preferably by bolts or lag-screws *a*, as shown in Fig. 1. The tub is provided with an opening near its bottom, which opening is closed by the slides C, working in guides *b* in the usual manner.

D D are uprights, T-shaped in cross-section, with flat heads D'. Their lower ends are expanded and curved to fit the contour of the tub, and are secured to the sides thereof by bolts, as shown.

E is a tie-bar joining the uprights D at a short distance from their lower ends. This tie-bar rests upon the top of the tub, and at its center is provided with a recess, *c*, in which the vertical shaft F turns.

G is another tie-bar, resting on the tops of the uprights D and forming a bearing for the upper end of the vertical shaft F.

H are pillow-blocks, cruciform in cross-section, secured to the heads of the uprights D by means of bolts *d*, passing through the heads D' of the uprights D, the feet *h* of the pillow-blocks, and the tie-bar G, as plainly shown in Fig. 1, and securing these parts solidly together. In journal-boxes formed in the upper ends of these pillow-blocks H is journaled the shaft I, to which are secured the fast and loose pulleys J J, by means of which motion is communicated to said shaft from any suitable source of power.

K is a beveled pinion carried by the shaft I, which pinion meshes with a beveled gear, L, secured to the upper end of the vertical shaft F, by means of which said shaft F is revolved.

The shaft F is stepped in the bottom of the tub and carries the stirrer-bar F', which is provided with the stirrer-arms *f*.

Projecting downwardly from the tie-bar E are the arms *e*, the object of which will soon be explained.

All of the journal-bearings are preferably lined with Babbitt metal, as shown at *g* in Fig. 2.

The operation of the device is as follows: The material to be mixed having been placed in the tub and motion being given to the shaft I, the bevel-pinion K, which is secured thereto, of course revolves with it, and this pinion, meshing with the gear L, secured to the shaft F, imparts motion to said shaft, which in revolving carries the stirrers *f* around with it, as will be clearly understood.

If it were not for the stationary stirrer-arms *e* the material in the tub would be carried around by the arms *f* and the material would not be thoroughly mixed; but the arms *e* not only arrest the progress of the lead or other material, but assist in breaking up the same. Nothing is claimed, however, in the operation of the stirrer *f* and arms *e*, as those are such as are commonly used, my invention consisting in the construction and arrangement of the frame whereby the mixer is made portable and can be readily set up complete in any position or even worked in the open air.

It will be observed that the construction and arrangement of parts above shown will



make a strong yet comparatively light frame, and that the tie-bar E serves the double purpose of part of the frame and as a means of securing the fixed arms *e*.

5 I am aware of the Patents Nos. 173,666 and 237,846, granted for improvements on churns, and make no claim to anything shown therein.

What I claim as new is—

10 1. The combination of the tub B, the horizontal shaft I, and the shaft F, carrying the stirrer-bar F' and arms *f*, with the uprights D, firmly secured to said tub and carrying at their upper ends bearings for said shaft I, and the  
15 bar G, constructed to perform the double function of connecting the uprights and a bearing for the upper end of the vertical shaft F, substantially as and for the purpose specified.

20 2. The combination of the tub B, the horizontal shaft I, and the vertical shaft F, carrying the stirring-bar F' and arms *f*, with the uprights D, firmly secured to the sides of said tub and carrying at their upper ends bearings for said horizontal shaft I, the bar G, constructed to perform the double function of

connecting the upper end of the uprights and 25 a bearing for the upper end of the vertical shaft, and the bar E, serving the twofold purpose of connecting and staying the lower ends of the uprights and as a support for the arms *e*, substantially as and for the purposes specified. 30

3. The frame for a paint-mixer herein described, consisting of the uprights D, having flat heads, D', the pillow-blocks H, provided with the feet *h* and carrying journal-bearings for the shaft I, the tie-bar G, secured between 35 said heads D and *h* and forming a bearing for the upper end of the shaft F, and the tie-bar E, joining and bracing said uprights near their lower ends, and having secured thereto the arms *e*, substantially as herein shown and de- 40 scribed.

In testimony whereof I affix my signature, in presence of two witnesses, this 29th day of December, 1884.

CHARLES ROSS, JR.

Witnesses:

CHAS. G. ROSS,  
R. GOLDSMITH.