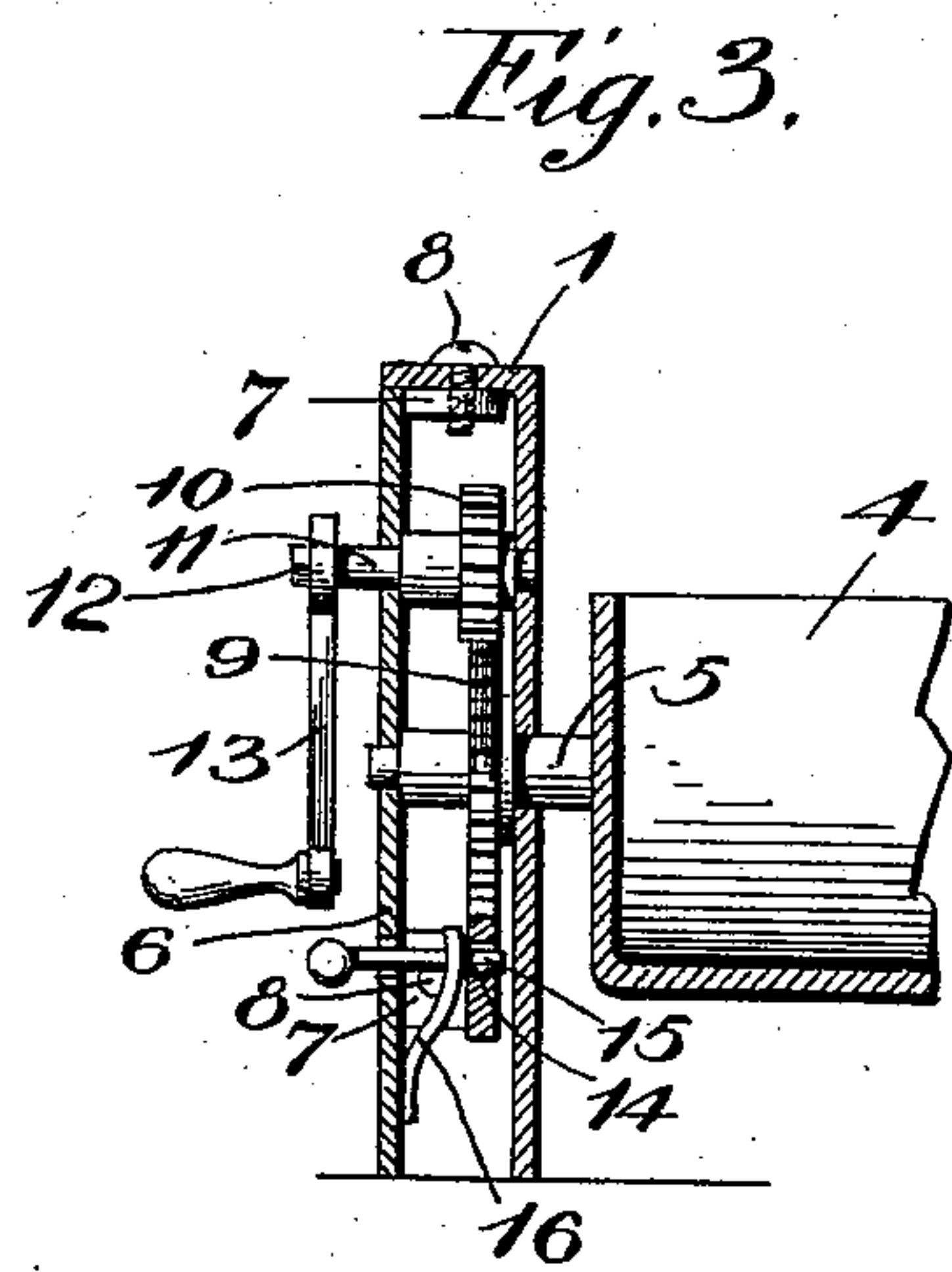
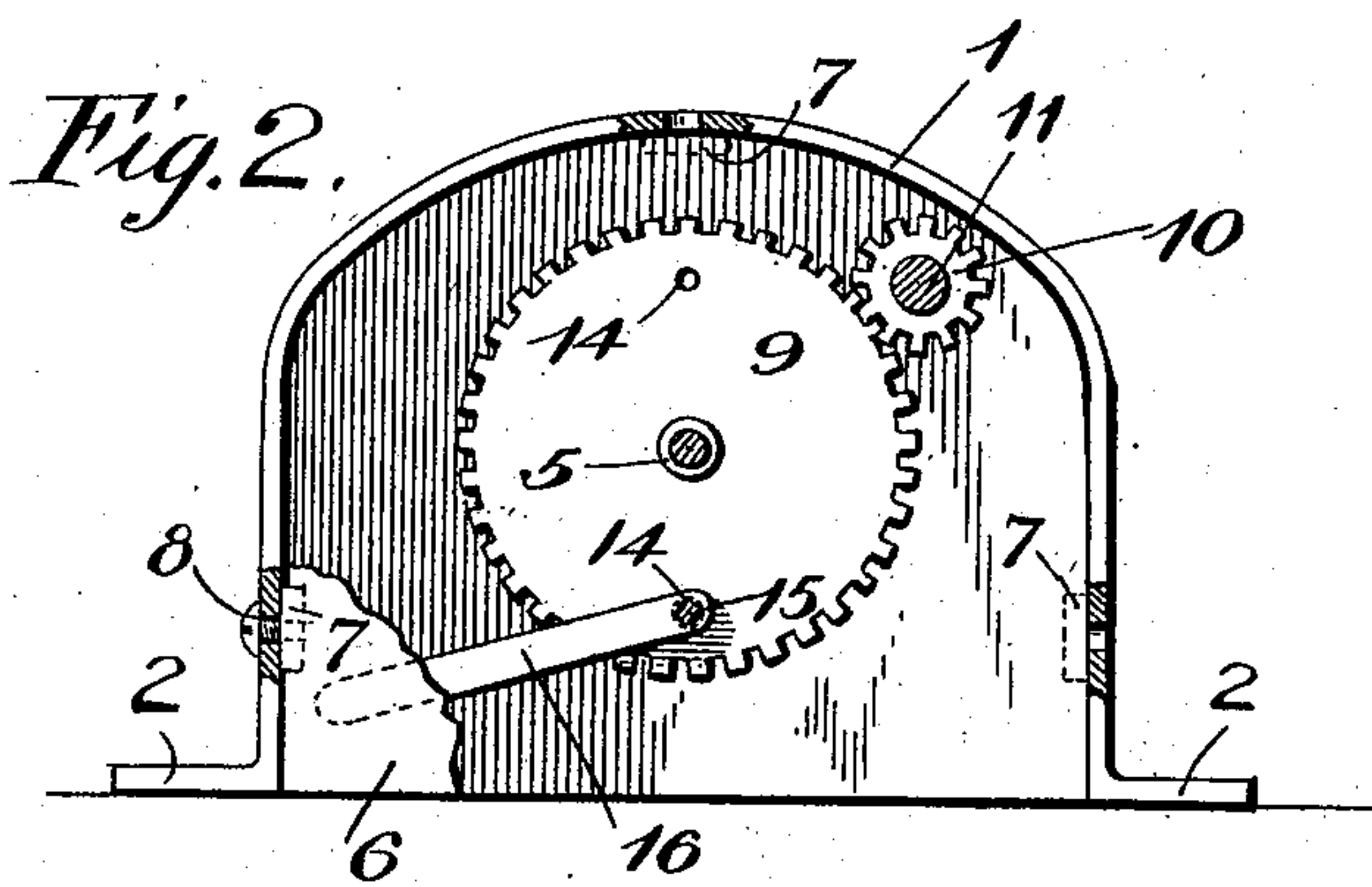
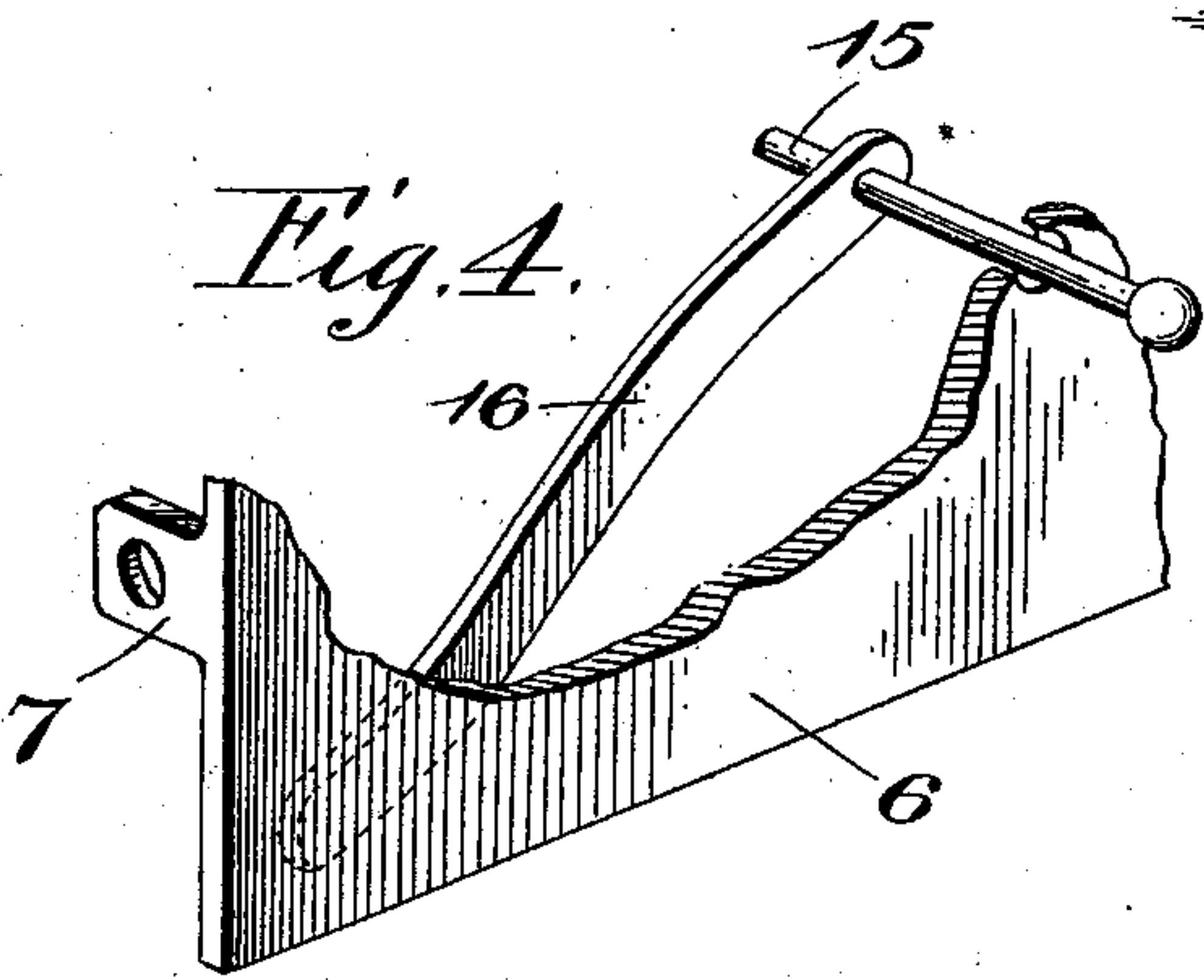
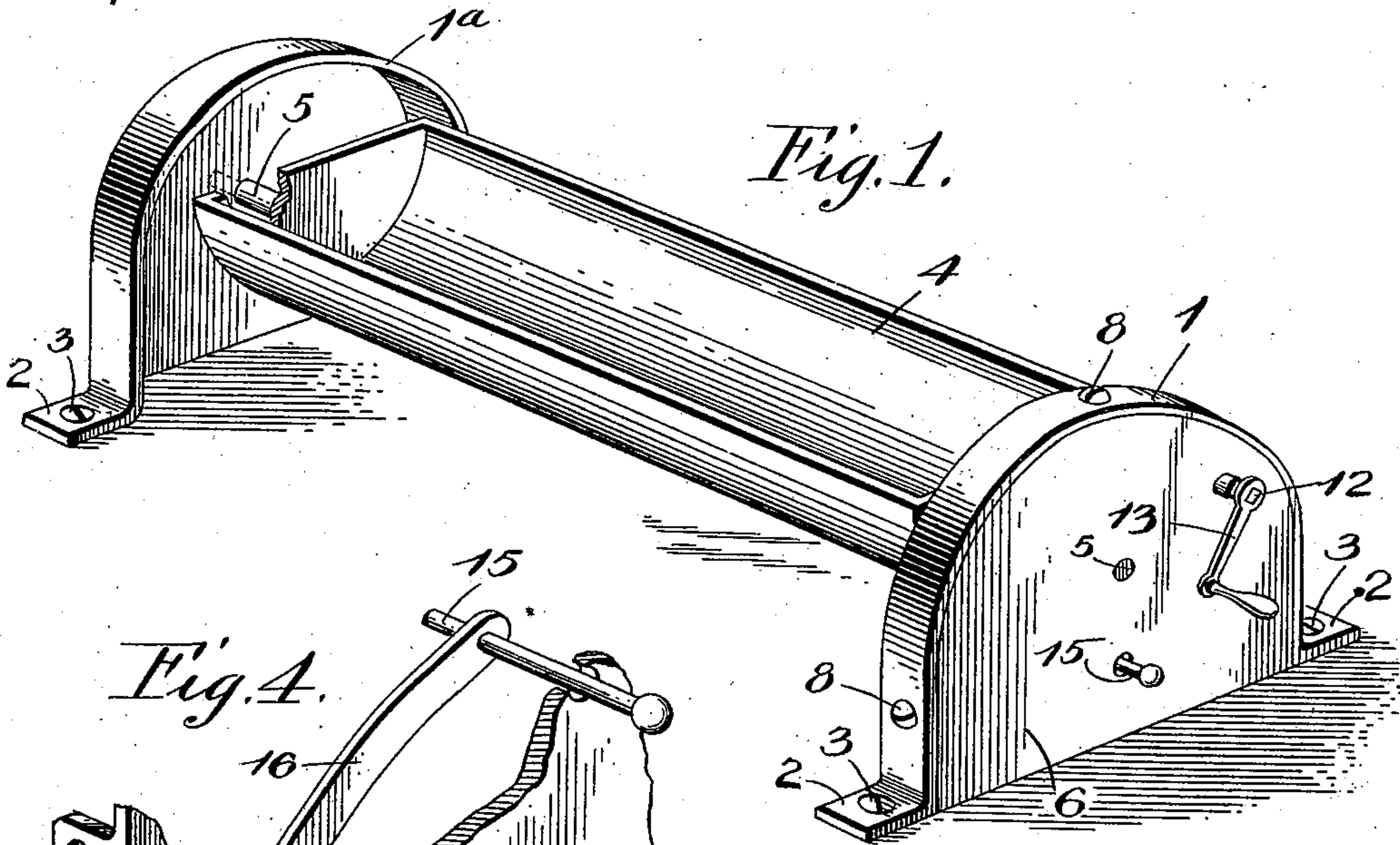


(No Model.)

D. B. ESHLEMAN.
REVERSIBLE TROUGH.

No. 601,132.

Patented Mar. 22, 1898.



Inventor
Daniel B. Eshleman

Witnesses

J. H. Culverwell,

By his

Attorneys,

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UNITED STATES PATENT OFFICE.

DANIEL B. ESHLEMAN, OF DERRY CHURCH, PENNSYLVANIA.

REVERSIBLE TROUGH.

SPECIFICATION forming part of Letters Patent No. 601,132, dated March 22, 1898.

Application filed September 13, 1897. Serial No. 651,504. (No model.)

To all whom it may concern:

Be it known that I, DANIEL B. ESHLEMAN, a citizen of the United States, residing at Derry Church, in the county of Dauphin and State of Pennsylvania, have invented a new and useful Reversible Trough, of which the following is a specification.

My invention relates to feed-troughs, and particularly to a reversible trough adapted to facilitate cleansing and avoid the freezing of its contents in cold weather; and the object in view is to provide a simple and efficient construction and arrangement of parts whereby the manipulation thereof is facilitated and whereby the same may be securely held in its adjusted positions.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claim.

In the drawings, Figure 1 is a perspective view of a trough constructed in accordance with my invention. Fig. 2 is an end view showing the casing of the operating mechanism with its face-plate omitted. Fig. 3 is a vertical sectional view of the operating mechanism. Fig. 4 is a detail perspective view of the locking-pin and actuating-spring and the contiguous portion of the face-plate.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

Mounted between suitable standards 1 and 1^a, having feet 2, which are adapted to be secured by screws 3 or any equivalent devices to a horizontal support, is a reversible trough 4, which may be of any suitable cross-sectional construction, but is preferably semicylindrical, said trough being provided with terminal spindles or trunnions 5, mounted in suitable bearings in said standards.

One of the standards, 1, is of hollow construction to form a casing provided with a removable face-plate 6, which is provided with inwardly-extending lugs 7, secured to the flange of the standard by means of screws 8 or equivalent devices. Fastened to the trough-spindle within the casing is a gear-wheel 9, the portion of the spindle beyond said gear-wheel being reduced and fitted in a suitable bearing in the outer wall or removable face-

plate of the casing, and meshing with the peripheral teeth of said gear is a pinion 10, having its spindle 11 mounted in suitable bearings in the outer and inner walls of the casing. The spindle of the pinion is extended beyond the outer wall and is constructed to form a wrench-seat 12, upon which may be fitted an operating-crank 13 or any equivalent tool for communicating rotary motion to the spindle.

In order that the trough may be secured in either of its adjusted positions—namely, in its upright or in its inverted position—I provide the gear 9 with a plurality of sockets 14, preferably at diametrically opposite points, and also provide a spring-actuated locking-pin 15, terminally exposed beyond the plane of the face-plate and adapted to engage either of said sockets in the gear. In the construction illustrated this locking-pin is provided with an actuating-spring 16 of the plate type secured to the inner surface of the face-plate, and it is obvious that in order to release the parts to provide for the turning of the trough the locking-pin must be drawn outwardly by means of its projecting extremity to remove its inner end from engagement with the socket in which it is fitted.

From the above description it will be seen that when in either its upright or operative position or in its reversed or inoperative position the trough is locked by means of the pin provided for that purpose and that when released a trough of considerable weight (the same is preferably constructed of boiler-iron) can be reversed with facility by turning the crank-arm provided for that purpose.

The trunnions of the trough are preferably arranged at the centers of its ends or in alignment with its longitudinal center and slightly above the center of gravity, whereby while the trough is adapted by gravity to maintain an upright or normal position it may be readily reversed to discharge its contents. It will be seen that by this arrangement the operation of tilting the trough does not involve elevating its contents, as the bottom of the trough, which is of semicylindrical construction, is approximately concentric with the trunnions, and hence with the axis of movement.

Various changes in the form, proportion,

and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

5 Having described my invention, what I claim is—

A reversible trough having terminal trunnions, standards having bearings in which said trunnions are mounted, one of the stand-
10 ards being of hollow construction and having a removable face-plate, an operating-spindle mounted in one wall of the hollow standard and provided with an exposed wrench-seat, in-
15 termeshing gears carried by the operating-spindle and the contiguous trunnion of the

trough and incased within said hollow standard, the gear on the said trunnion being provided with sockets, and a spring-actuated locking-pin mounted within the hollow standard for engagement with one of the sockets of
20 the gear, and having a handle portion extended through an opening in said face-plate for manual operation, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in
25 the presence of two witnesses.

DANIEL B. ESHLEMAN.

Witnesses:

C. BENSON,

D. H. HOLLINGSWORTH.