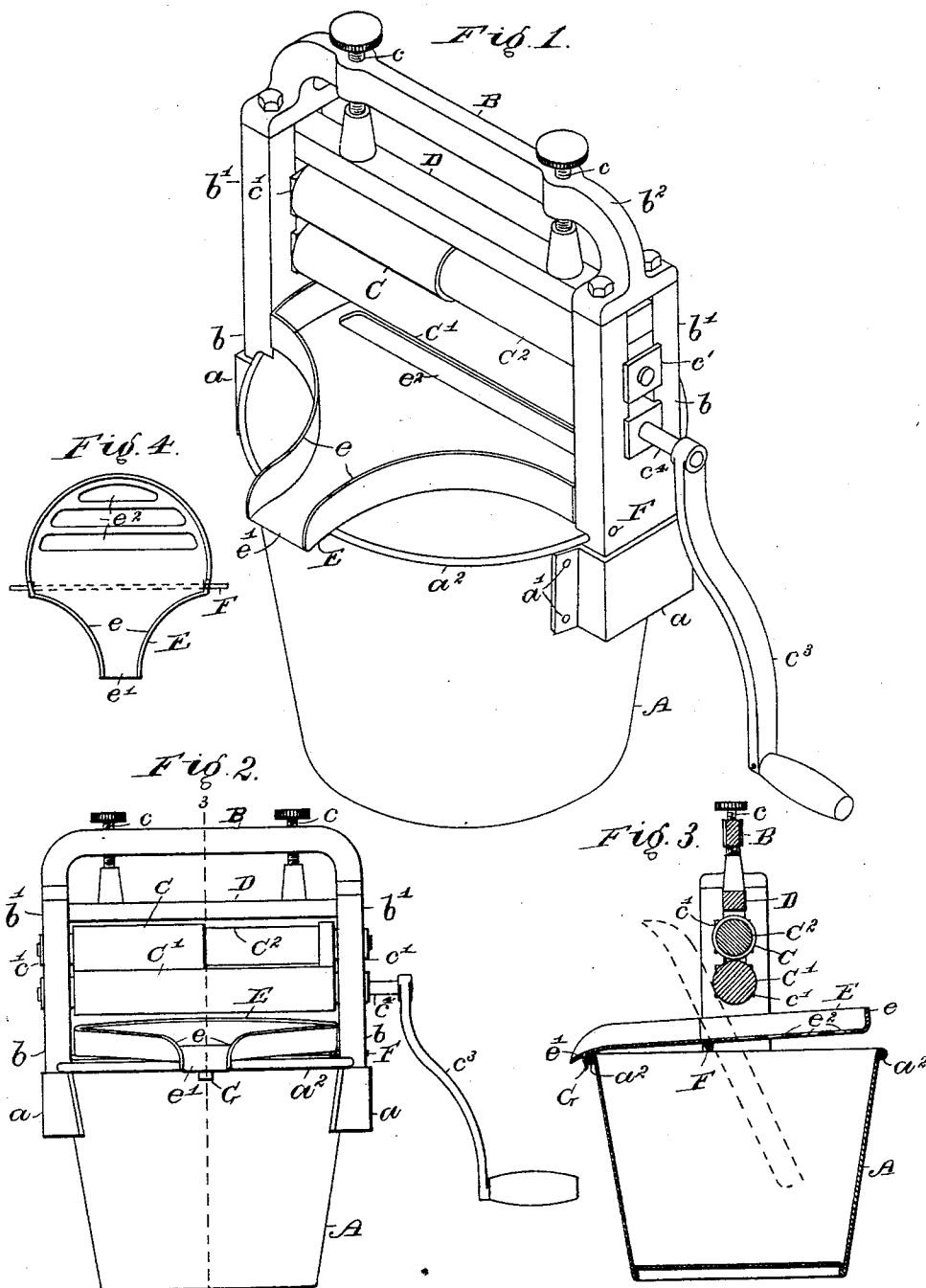


(No Model.)

M. KNOWLES.
LIQUID HOLDER AND WRINGER.

No. 586,239.

Patented July 13, 1897.



WITNESSES.

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UNITED STATES PATENT OFFICE.

MANLEUS KNOWLES, OF LOWELL, MASSACHUSETTS.

LIQUID-HOLDER AND WRINGER.

SPECIFICATION forming part of Letters Patent No. 586,239, dated July 13, 1897.

Application filed June 22, 1894. Serial No. 515,386. (No model.)

To all whom it may concern:

Be it known that I, MANLEUS KNOWLES, a citizen of the United States, residing at Lowell, in the county of Middlesex and Commonwealth of Massachusetts, have invented a certain new and useful Improvement in Liquid-Holders and Wringers, of which the following is a specification.

My invention relates to liquid-holders and wringers, and is adapted especially for use in washing horses and other animals, harnesses, and wheeled vehicles, including cars, fire-engines, hose-carriages, &c., and in the washing and suitable moistening of bandages and compresses in the practice of veterinary medicine and surgery.

In the accompanying drawings, Figure 1 is an isometric perspective view of a liquid-holder and wringer constructed in accordance with my invention; Fig. 2, a front elevation of the same; Fig. 3, a central vertical section of the same on the line 3 3 in Fig. 2, showing also in dotted lines the discharge-trough tilted up out of its operative position; Fig. 4, a plan of said discharge-trough.

The liquid-holder A is a tub or similar shaped vessel of usual construction, but preferably of galvanized sheet-iron having oppositely-arranged sockets *a* or lugs secured, as by rivets *a'*, to said vessel at the rim thereof, said sockets receiving the legs *b* or lower end portions of the vertical sides *b'* of the wringer-frame B, which is of usual construction. The wringer is provided with any well-known appliances for varying the pressure of the upper roll C upon the lower roll C', as screws *c c*, which turn in the top or arch *b²* of the wringer-frame and thrust upon the top of a pressure-bar D, which rests upon the loose journal-boxes *c' c'* of said upper roll in the usual manner. The lower roll C' is turned in its journal-boxes by means of a crank *c³*, fast on its shaft *c⁴*, and drives the upper roll by friction or by the usual gears, which are well understood and therefore not shown. The lower roll C' is of uniform diameter, but the upper roll C has a reduced cylindrical portion C² extending from about the middle thereof nearly to one end thereof, said end portion being of the same size as the unreduced half of said roll, in order that both ends of said upper roll may bear upon the

lower roll and keep said rolls parallel with each other.

When it is desired to wring a wash-cloth or wash-leather as nearly dry as possible, such cloth or leather is passed between the lower roll and the large part of the upper roll, but when it is intended to leave considerable moisture in such cloth or leather said cloth or leather is passed between the lower roll and the reduced part C² of the upper roll.

A sponge is very liable to be torn in passing between ordinary wringer-rolls under ordinary pressure, but may be safely passed between the lower roll and the reduced part of the upper roll herein described.

Two degrees of pressure may thus be obtained when desired for any purpose, and especially bandages and compresses for the treatment of wounds, sores, or diseased joints may be taken from the wringer sufficiently wet, but not wet enough to drip, by first immersing such bandages and then passing them between the lower roll and the part C² of the upper roll having the least diameter.

The rolls are non-porous and elastic and made of the usual materials—that is, of rubber provided with metallic shafts.

Below the rolls is arranged a drip-trough E, preferably of sheet metal, as galvanized sheet-iron, having a rim *e* at its outer edge, except in the narrow front part *e'*, which serves as a nose or discharge-spout. Said trough E is loosely secured by sheet-metal straps or clips to a rod F, which is supported horizontally in holes in the legs of the wringer-frame in such a manner that said trough may be tilted up into the position shown by dotted lines in Fig. 3, when it is desired to fill the liquid-holder, or may be turned into a horizontal position with the nose *e'* projecting over the rim of the holder. The trough when free to turn on its pivot-rod F naturally takes the position shown in dotted lines in Fig. 3, the part of said trough back of said rod being larger and heavier than the other part thereof, as shown in Figs. 3 and 4, but said trough may be retained in its nearly horizontal operative position, as shown in Figs. 1 and 2 and by full lines in Fig. 3, by a spring-catch G, which engages the rim of the holder, said rim being represented as beaded at *a²*. When the trough E is in operative position, the wa-

ter extracted by the rolls C C' runs from the nose upon the ground, the trough being slightly inclined downward toward said nose and the spaces between said nose *e'* and the rim of the holder A allow of a sponge, cloth, or leather or other absorbent material being passed down into the liquid in said holder A and of being removed therefrom, while the transverse slots *e''* in the part of the trough, back of the rolls C C' allow said part to be used as a drainer for cloths or sponges placed thereon.

I claim as my invention—

1. The combination of a wringer, having rolls and having legs, a liquid-holder, having sockets to receive said legs, and a trough, pivoted below said rolls and provided with a nose which extends in front of said rolls beyond the side of said holder, to discharge outside of said holder, the liquid extracted by

said wringer, said trough being enlarged and slotted in the rear of said rolls to serve as a drainer, as and for the purpose specified.

2. The combination of the liquid-holder, the wringer, having rolls and secured to said holder, a drip-trough, pivoted below said rolls, and having a nose which reaches over the rim of said holder in front of said rolls and having a slotted rear portion which serves as a drainer and, by its greater weight is adapted to turn said trough upon its pivot, and a catch to hold said nose down upon said rim, as and for the purpose specified.

In witness whereof I have signed this specification, in the presence of two attesting witnesses, this 20th day of June, A. D. 1894.

MANLEUS KNOWLES.

Witnesses:

ALBERT M. MOORE,
AGNES BAILEY.