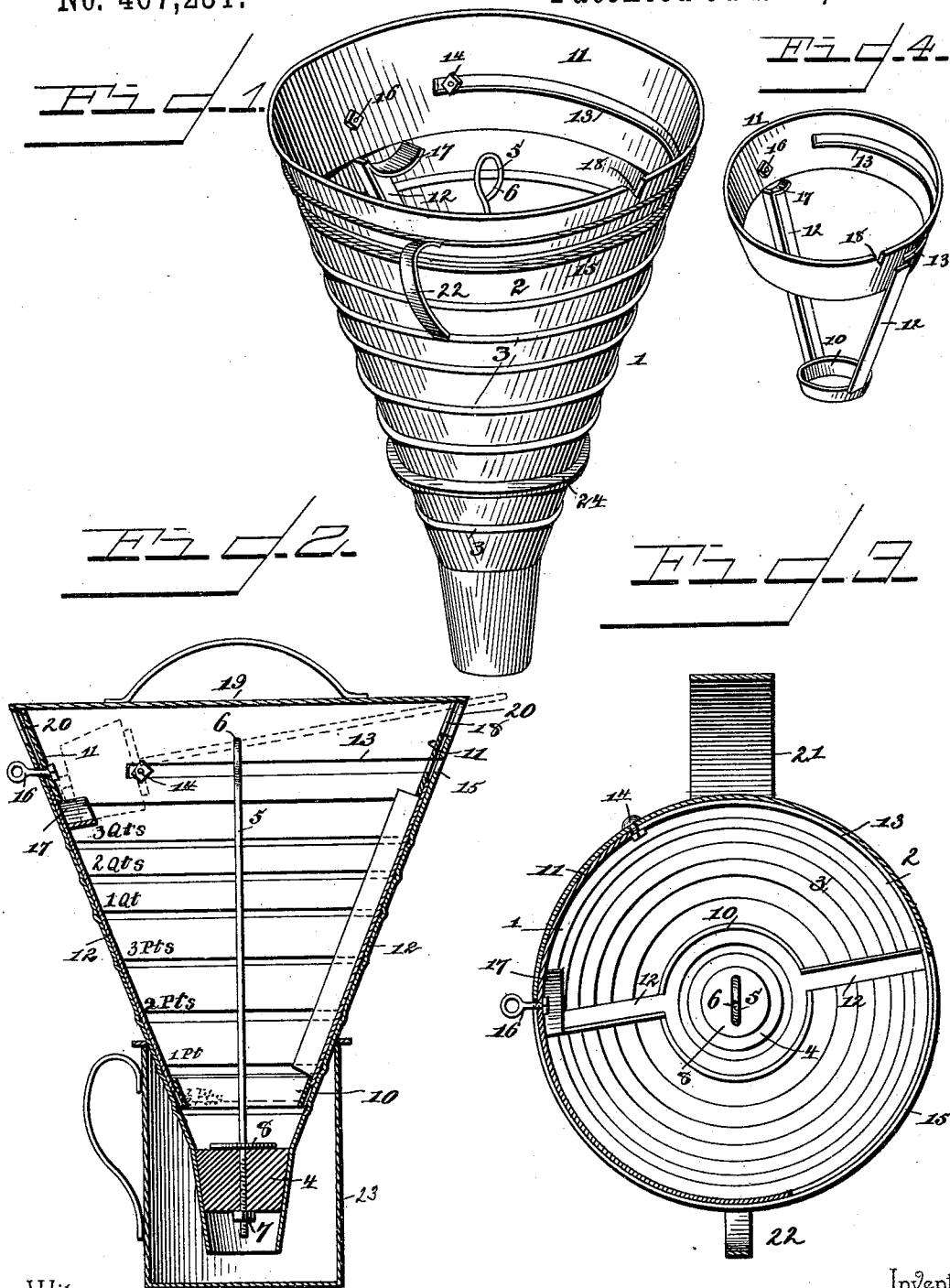


(No Model.)

J. W. JAMES.
MEASURING FUNNEL.

No. 467,231.

Patented Jan. 19, 1892.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN WALLACE JAMES, OF NEWARK, OHIO.

MEASURING-FUNNEL.

SPECIFICATION forming part of Letters Patent No. 467,231, dated January 19, 1892.

Application filed February 28, 1891. Serial No. 383,215. (No model.)

To all whom it may concern:

Be it known that I, JOHN WALLACE JAMES, a citizen of the United States, residing at Newark, in the county of Licking and State of Ohio, have invented a new and useful Measuring-Funnel, of which the following is a specification.

The invention relates to improvements in measuring-funnels.

The object of the present invention is to simplify and improve the construction of measuring-funnels, to facilitate the draining of thick and heavy liquids, to exclude dust and insects, and to provide means for keeping the funnel and its parts out of contact with the floor or other supporting-surface.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a measuring-funnel constructed in accordance with this invention, the cover being removed. Fig. 2 is a central vertical sectional view. Fig. 3 is a horizontal sectional view. Fig. 4 is a detail view, on a reduced scale, of the scraper removed from the vessel.

Referring to the accompanying drawings, 1 designates a funnel having its bowl 2 graduated by creases 3 and having its nozzle presenting a smooth interior and adapted for the reception of a stopper or valve 4, adapted to close the funnel while measuring a quantity of liquid and preparatory to emptying the same into a receptacle. The rubber stopper or valve 4 is secured to the lower end of a wire stem 5, which is provided at its upper end with a handle 6 and has its lower end threaded to receive a nut 7, which engages the lower end of the stopper or valve 4, and is provided with a rigid washer 8, against which the rubber stopper or valve bears.

The funnel is designed to be placed in a receptacle to allow its contents to drain, and, to facilitate draining, is provided with a cleaner arranged within the funnel and adapted to remove a liquid from the sides thereof, and consisting of a lower ring 10, an upper band 11, and scraper-bars 12, L-shaped in cross-section and oppositely disposed and connecting the rim and band and arranged to

engage the inner face of the funnel and scrape a liquid, such as molasses or the like, from the funnel to facilitate draining. The upper and lower rings and the scraper bars or beads form a skeleton frame, which approximates the shape of the funnel and extends nearly the entire length of the same. The upper band is provided with a longitudinal slot 13, extending more than one-half of the band and engaged by a screw or bolt 14 and adapted to permit the cleaner to be turned sufficiently to permit the scrapers to pass over the entire surface of the inner face of the funnel. The scraper-bars 12 are L-shaped in cross-section and have their ends secured to the outer faces of the ring and the band.

The bowl of the funnel is provided near its upper edge with a slot 15, similar to that of the band 11 and adapted to be engaged by a screw or bolt 16 of the band, and the ends of the screws or bolts 14 and 16 are threaded and provided with nuts and are adapted to be removed when it is desirable to remove the cleaner from the funnel.

The upper end of one of the scraper-bars is provided with an integral curved extension 17, arranged horizontally and adapted to receive and support the stopper or valve 4 to prevent the latter coming in contact with the floor or supporting-surface, and the band is provided at a point diametrically opposite the curved support 17 with a notch 18 to receive the stem 5 and to enable a cover 19 to be readily placed on the band, and the said cover 19 is provided with oppositely-disposed notches 20, adapted to receive the stem, and the two notches 20 are provided to enable a notch to be readily brought opposite the stem and to prevent unnecessary turning of the cover.

The funnel is provided with handles 21 and 22, and when not in use is supported within a drip-cup 23, which enables the funnel to drain completely and which keeps the same from the floor or other supporting-surface and preserves the same in a clean condition and at the same time insures economy. When the liquid in the drip-cup accumulates, it may be poured into the barrel or into the measure. The bowl of the funnel is provided near its end with an annular flange 24, which rests on the upper edge of the drip-cup and holds the

lower end of the nozzle above the bottom of the cup.

It will be seen that the measuring-funnel is simple and inexpensive in construction and adapted to thoroughly drain its contents in a very short time, insures cleanliness, and protects its contents from dust and insects.

While the measuring-funnel is constructed with a scraper for measuring thick liquids, it is also equally useful for measuring thin liquids.

What I claim is—

1. A scraper attachment to funnels, comprising a movable skeleton frame fitted within the funnel and consisting, essentially, of the blades 12 and the bands connecting the same, the frame being made to approximate the shape of the funnel and extends nearly throughout the entire length of the same, substantially as set forth.

2. The combination of the funnel provided

with a horizontal slot 15, the cleaner comprising the lower ring, the upper band provided with a longitudinal slot, and the scraper-bars connecting the band and the ring, and the screws or bolts arranged in the slots and engaging the funnel and the band, substantially as described.

3. The combination of the funnel and the cleaner comprising the lower ring, the upper band having a notch 18, and the scraper-bars, one of which is provided with a horizontal extension forming a curved stopper-support, substantially as described.

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

JOHN WALLACE JAMES.

Witnesses:

W. F. HULL,
W. P. YOUNG.