J. HARPER.

FLOWER-STANDS.

No. 194,677. Patented Aug. 28, 1877.

Fig 1.

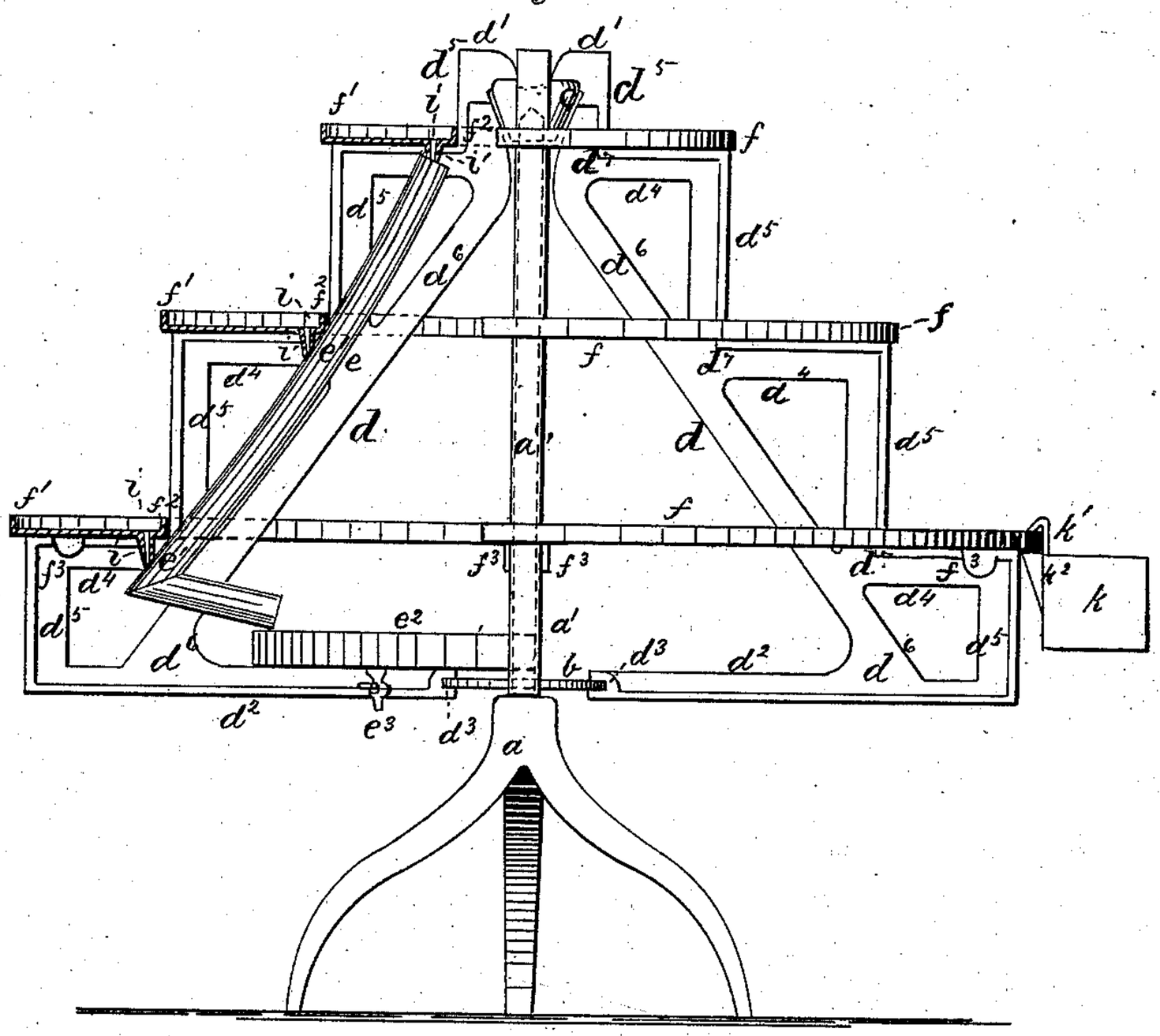


Fig 5.

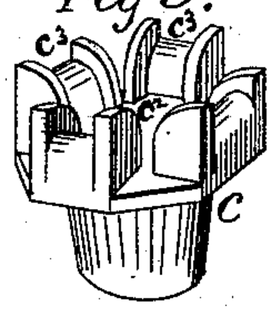


Fig 4.

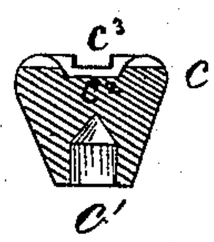


Fig 2.

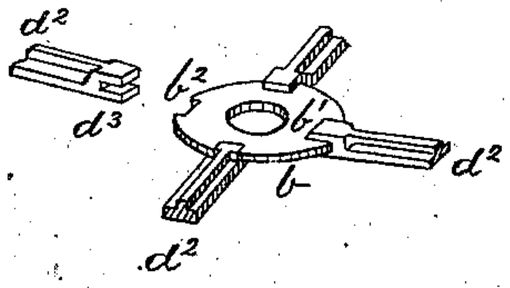
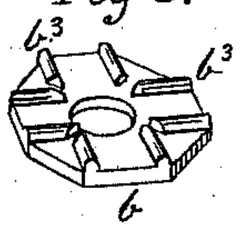


Fig 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

JOHN HARPER, OF STAMFORD, CONNECTICUT.

IMPROVEMENT IN FLOWER-STANDS.

Specification forming part of Letters Patent No. **194,677**, dated August 28, 1877; application filed October 7, 1876.

To all whom it may concern:

Be it known that I, JOHN HARPER, of Stamford, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Flower-Stands; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in revolving flower-stands, the nature of which will be hereinafter fully explained, and pointed out in the claims, reference being had to the accompanying drawings.

In the drawings which represent my invention, Figure 1 is a side elevation, with a portion of the troughs or shelves removed; and Figs. 2, 3, 4, and 5 are detail views of parts.

a is the stand, having a vertical center shaft, *a'*, about which the frames revolve. *b* is a small revolving disk, placed on and at the lower end of the center shaft *a'*. It is constructed with the notches b^2, or provided with the projections b^3, arranged and adapted to receive and prevent lateral movement of the end of the horizontal arms of the revolving frames, hereinafter described. *c* is a revolving head or capital, constructed with the socket c^1, which fits over the upper end of the shaft *a'*. It is also constructed with the central depression or recess c^2, and with the radial grooves c^3 on its upper end, in which are placed the hooks on the upper ends of the frames.

In Fig. 5 is shown a more ornamental form of constructing the head-piece *c*.

d d are a series of revolving frames, supported by the head *c* and disk *b* on the stand *a*. Four of these frames are ordinarily employed; but more or less than four may be used.

Each frame *d* is composed of the two parts d^2 d^6, formed in one piece, and so arranged that when placed on the stand *a* the part d^2 will be horizontal and the part d^6 inclined inward to the head *c*. When the several frames are placed in position on the stand *a* the device will have a conical shape.

The horizontal arm d^2 has its inner end slotted, as shown at d^3, so that it will fit over the edge of the plate *b* and in the notches b^2, or between the projections b^3, where it will be held firmly in its position. The inclined arm d^6 has formed on its upper end a hook, d^1, adapted to be received into the recess c^2 and groove c^3 on the top of the head *c*, where it rests. The vertical sides of the groove c^3 prevent the frame from swinging from side to side on its supports.

On each inclined arm d^6 is formed a series of right-angled supports, composed of the horizontal side d^4 and vertical side d^5. These supports are so arranged that the lower end of the side d^5 of any given upper support and the inner end of the side d^4 of the next lower support unite, and form at their junction a right angle, as shown at d^7. The troughs or shelves, hereinafter described, when placed in position on the frames, rest on the horizontal side d^4, and fit snugly against the vertical side d^5, and bind the several frames *d* into one substantial revolving frame, on which the flower-pots are placed.

e is a pipe secured to the side of one of the frames *d*, and is provided with a series of holes, e^1, adapted to receive the ends of small discharge-spouts attached to troughs or shelves, hereinafter described. It receives and carries off the surplus or waste water from said troughs, and discharges it into the receiving-pan e^2 placed on the arms d^2.

f f are the troughs or shelves for holding the flower-pots. They are formed with the outer and inner vertical sides f^1 f^2, making a reservoir, which will catch the drippings or surplus water when watering the plants, and which, if desired, will hold sufficient water, in which may be put gold or other fish. If filled with water for the reception of fish, short boards should be laid, at proper distances apart, across the trough and on the top of the sides f^1 f^2, for the flower-pots to be set on. The troughs may be made circular, rectangular, octagonal, or of any desired contour adapted to slip down over the supports d^4 d^5. They are provided with the under parallel projections f^3 f^3, which are arranged to embrace the horizontal arm d^4, and prevent any turning or sliding around of the trough on the frames. The troughs fit snugly against the vertical sides

d^5, so as to bind all the frames firmly together into one revolving frame. The inner side f^2, extending up on the arm d^5, makes a brace or support, which prevents any turning or tipping up of the outer side of the trough, so that when the latter is placed in position, as shown in Fig. 1, it is almost as firmly fixed as if it were riveted to the frames, and it can only be removed by lifting vertically and simultaneously all sides thereof.

By reason of this construction and arrangement of the frames and troughs, I am enabled to use very light thin metal for the construction thereof.

Each trough is provided with an opening, i, and a small discharge-pipe, i', which, when the trough is placed on the frames, extends to, and its lower end enters, the opening e^1 in the pipe e. The discharge-pipe on the uppermost shelf may be arranged to enter the upper end of the pipe e, as shown.

k is a propagating-box, to be suspended on the outer side f^1 of the trough f. It is constructed with the hooks k^1, by which it is hung on side f^1, and with the projections k^2, which pass under the trough, and prevent the hooks from being thrown or knocked off the said side.

It will be readily understood that my flower-stand may be easily taken to pieces, and again as easily put together.

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

1. The propagating-box k, provided with the hooks k^1 and projections k^2, adapted to be suspended to and retained in position on the side f^1 of the trough f, as set forth.

2. In a flower-pot stand, the combination, with a series of removable troughs or shelves, f, having vertical sides f^1 f^2, openings i, and spouts i', and carried by a series of frames or racks, d, supported by a capital or head-piece, c, and plate b, supported and revolving on a stand, a a', as described, of a discharge-pipe, e, having openings e^1 capable of receiving the ends of the spouts i', the whole being arranged and operating substantially as shown and described.

3. In a revolving flower-stand, a frame, d, constructed with horizontal arm d^2 and inclined arm d^6, and provided with a hooked upper end, d^1, and a slotted inner or lower end, d^3, and stand a a', a capital or head c, constructed with the recess c^2 and radial grooves c^3, and disk b, having the notches b^2 or projections b^3, substantially as set forth.

4. The combination, with a series of removable frames, d, constructed with the rectangular supports d^4 d^5, supported by and revolving on a stand a a', of a trough, f, constructed with the vertical sides f^1 f^2, substantially as and for the purpose set forth.

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

JOHN HARPER.

Witnesses:
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THEO. J. FERRIS.