(No Model.) 2 Sheets—Sheet 1.

J. H. FUCHS.

DISHING MACHINE.

No. 593,462. Patented Nov. 9, 1897.

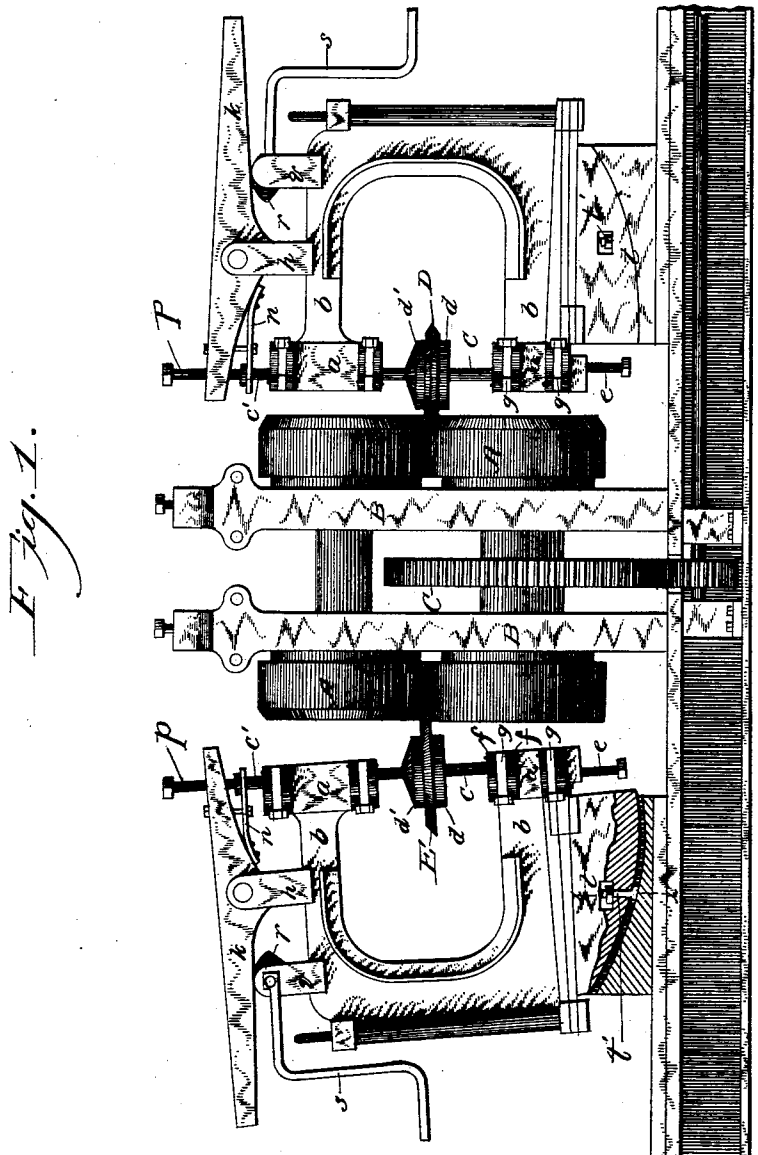


Fig. 1.

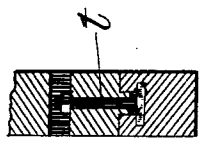


Fig. 8.

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(No Model.) 2 Sheets—Sheet 2.

J. H. FUCHS.

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Fig. 2.

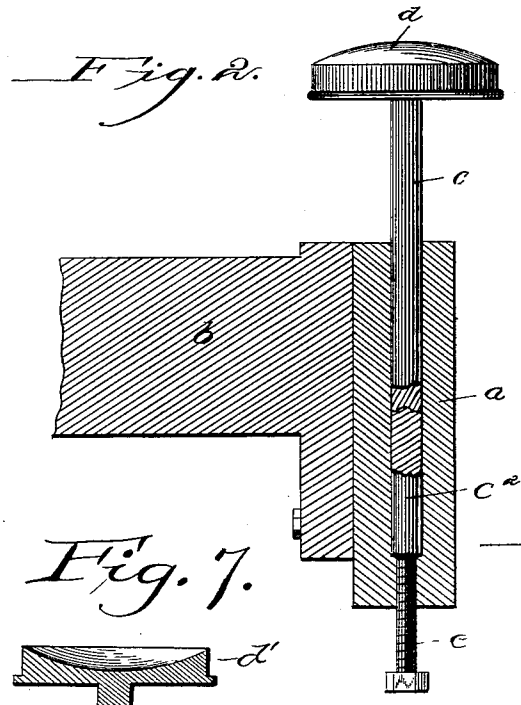


Fig. 3.

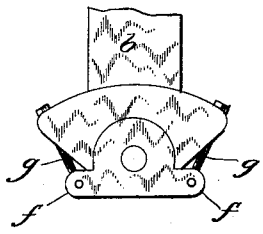


Fig. 7.

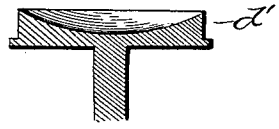


Fig. 4.

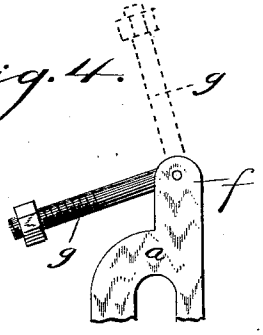


Fig. 5.

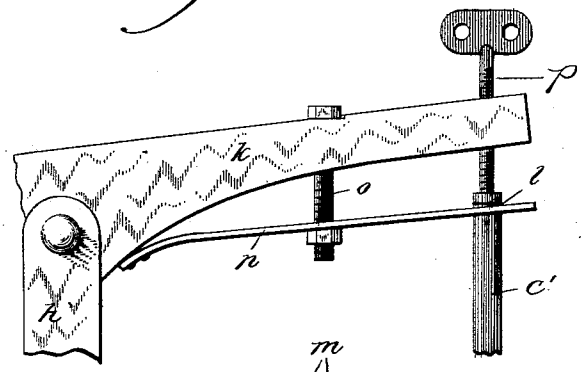


Fig. 6.



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UNITED STATES PATENT OFFICE.

JOHN H. FUCHS, OF ELLIOTT, PENNSYLVANIA.

DISHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 593,462, dated November 9, 1897.

Application filed December 31, 1896. Serial No. 617,566. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. FUCHS, a citizen of the United States of America, residing at Elliott, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Dishing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in dishing-machines, and has for its object to provide a machine for forming the dish in harrow-disks and the like simultaneously with the rolling of the edge of the disk.

The invention further aims to provide a machine of this class that may be inclined to any angle and adjusted to conform to the size of the disk; furthermore, that will be extremely simple in its construction, strong, durable, effectual in its operation, and comparatively inexpensive to manufacture.

With the above and other objects in view the invention finally consists in the novel construction, combination, and arrangement of parts to be hereinafter more specifically described, and particularly pointed out in the claims.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like letters of reference indicate similar parts throughout the several views, in which—

Figure 1 is a front elevation of a set of rolls and the dishing-machine in side elevation, showing the disk in engagement with the rolls while being held by the disher. Fig. 2 is a vertical sectional view of the lower head-block. Fig. 3 is a top plan view of the same with disk and stem removed. Fig. 4 is a top plan view of a portion of the same, showing operation of fastening bolt. Fig. 5 is a side elevation of a portion of the lever and stem carrying the upper disk. Fig. 6 is a top plan view of a portion of the arm carrying the stem of upper disk. Fig. 7 is a longitudinal sectional view of the upper disk. Fig. 8 is a sectional view of the base of the yoke and stand, taken on the line $x\ x$ of Fig. 1.

Referring now to the drawings by reference-letters, a indicates the lower head-block, secured to the lower arm of the yoke b, said block being formed with a socket to receive the stem c, carrying the lower holding-disk d. This stem c is formed cup-shaped on its lower end and rests on a stem c^2, said stem being adjusted by a set-screw e in the lower end of the head-block a. The block a is formed with lugs $f\ f$, in which are swiveled fastening-bolts $g\ g$, which hold the head-block to the lower arm of the yoke b. On the upper arm of the yoke, which bears the same reference-letters, is pivotally secured in standards $h\ h$ the lever k, operating the upper disk d', which is provided with a concave face, while the disk d is provided with a convex face. The upper head-block is secured in the same manner as the lower one and bears the same reference-characters, the stem c' of the upper disk being provided near its upper end with an exterior annular groove l, which receives the forked end m of an arm n, secured to the under face of the lever k and held by an adjusting bolt and nut o in the lever. Near the forward end of the lever k is provided a set-screw p, which engages the top of the stem c', and at the rear of the standards $h\ h$ are secured standards $q\ q$, carrying a shaft, on which is secured an eccentric r, engaging the lever k, said eccentric being operated by the crank-lever s, secured on one end of the shaft. Underneath the yoke I have provided an inclined stand t, which receives and supports the yoke, the upper face of the incline and the bottom of the yoke being concaved and convexed, respectively, for adjusting the machine to any angle, and in Fig. 1 of the drawings I have shown the manner in which the dish is formed in a harrow-disk, while on the opposite side of the rolls I have shown the same device being used for rolling colters which are formed without the dish. The bolt t' is provided for securing the parts when properly adjusted.

In order to illustrate my invention fully, I have shown a set of rolls the rolls proper of which are designated A, the housing B, and the gearing C; but I do not claim any part of these rolls, as they have merely been shown for illustrative purposes, the colter D being shown on the one side and the harrow-disk E on the other.

When the disk E has been placed in the disks d and d', the crank-lever is operated,

forcing the cam r against the under face of the lever k, raising the same at the rear end and forcing the forward end of same downward, and thus forcing the disk d' tightly on the harrow-disk or colter, holding the same firmly and allowing it to revolve as required by the action of the rolls on the edge of the disk or colter, as the case may be.

My invention lies chiefly, therefore, in the stem of the lower disk, which by reason of being formed in two pieces prevents any binding of the stem c on the stem c^2, as in case the stem c^2 should fail to revolve with the stem c the said stem c by reason of the cup end formed on same would operate on the stem c^2 and allow the disk d to move freely without binding. This has been demonstrated by actual practice and given the results claimed, while the stem when formed in one piece would bind in its socket and prevent the free movement of the disk. The stem may be readily raised or lowered in the socket by adjusting the screw e up or down, as the rolls may require.

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

1. In a device of the character described, a suitable supporting-base, rolls therein, a stand having a concave upper surface, a yoke having a correspondingly-convexed bottom face to fit that of the stand and means on said yoke for holding a harrow-disk in contact with the rolls, as and for the purpose described.

2. In a dishing-machine a base, rolls thereon, a stand having a concaved upper face to fit that of the stand, means for adjustably holding the yoke on the stand, disks having stems in the sockets in the yokes, means for forcing said disks in engagement with the harrow-disk and for holding it in contact with the rolls, substantially as described.

3. In a dishing-machine a base, rolls thereon, a yoke adjustably supported on the base, disks having stems through the sockets in the yokes, supplementary stems resting in cup-shaped depressions in the stems, set-screws for adjusting the stems, a lever pivoted on the upper portion of the yoke, an arm secured to the lever, said arm having a forked end engaging the supplementary stem of the upper disk, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN H. FUCHS.

Witnesses:
A. M. WILSON,
GEO. B. PARKER.