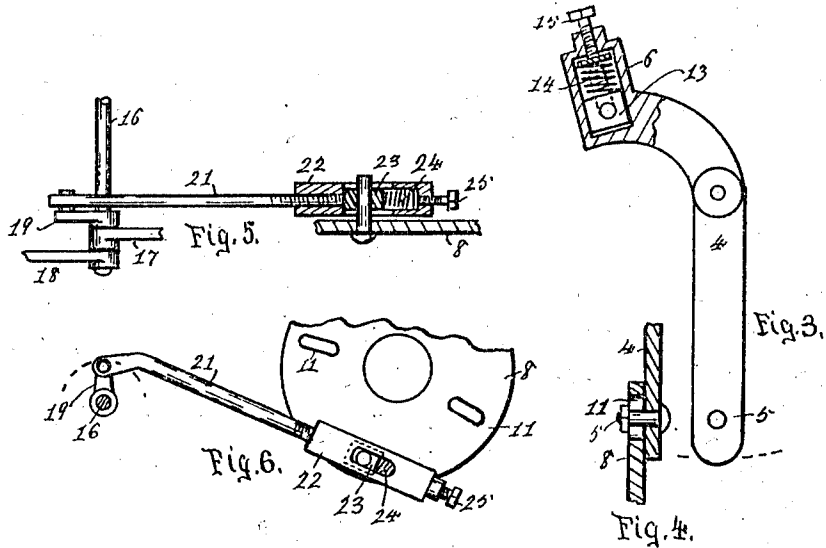
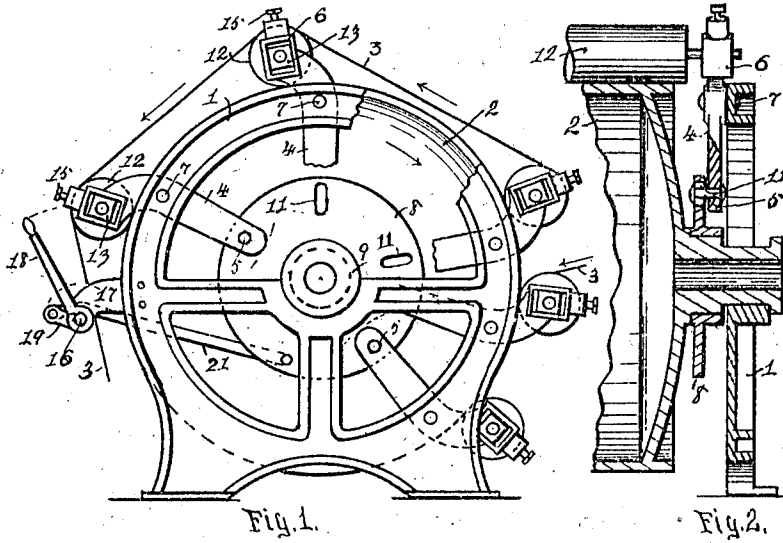


P. L. BROCKARDT.
MANGLE.
APPLICATION FILED APR. 30, 1910.

1,012,512.

Patented Dec. 19, 1911.



Witnesses.

James T. Carr.
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UNITED STATES PATENT OFFICE.

PAUL L. BROCKARDT, OF HAMILTON, OHIO, ASSIGNOR TO THE TRIUMPH LAUNDRY MACHINERY COMPANY, OF HAMILTON, OHIO, A CORPORATION OF OHIO.

MANGLE.

1,012,512.

Specification of Letters Patent. Patented Dec. 19, 1911.

Application filed April 30, 1910. Serial No. 558,636.

To all whom it may concern:

Be it known that I, PAUL L. BROCKARDT, a citizen of the United States, residing at Hamilton, Ohio, have invented a new and useful Improvement in Mangles, of which the following is a specification.

My invention relates to mangles of the class wherein the linen is carried between the face of a rotative cylindrical drier and an endless apron whereon pressure is exerted at intervals by means of pressure rolls, and the objects of my improvements are to provide fulcrumed levers wherein the roll bearings are slidably mounted and hand actuated lever mechanism for simultaneously moving the levers with the rolls toward or from the drier; to provide yielding connections between the disk and the actuating lever mechanism therefore so that the pressure rolls may be raised automatically and simultaneously by obstructions passing thereunder, and to provide such simple and durable construction of the different members as to facilitate their assemblage and operation for securing the most efficient action. These objects are attained in the following described manner as illustrated in the accompanying drawings, in which:

Figure 1 is an end elevation with parts broken away of a mangle embodying my improvements; Fig. 2 a longitudinal vertical section with parts broken away; Fig. 3, a side elevation with parts in section; Fig. 4 a sectional view showing the sliding connection of the lever with the disk, and Figs. 5 and 6 a plan with parts in section and an end elevation respectively showing the yielding connection of the lever mechanism with the disk.

In the drawings, 1 represents the usual end supporting frames of a mangle, 2 a hollow cylindrical drier journaled thereon, 3 portions of an endless apron partially encircling the drier and arranged to travel in the direction of the arrows. Angular levers 4 each formed with a slotted housing 6 in its outer end are fulcrumed at intervals on the end frames and equidistant from the axis of the drier by means of bolts 7. Disks 8 rotatively adjustable on the respective journals 9 of the drier are each provided with a series of radial slots 11 equidistant from its axis and slidably engaging with

the pins 5 secured in the inner ends of the corresponding levers 4. Pressure rolls 12 are journaled at their respective ends in bearings 13 which are slidably mounted in the slotted housings 6 of the angular levers 4. Coil springs 14 emplaced within said housings may be regulated by means of adjusting screws 15 for moving and maintaining said bearings in contact with the bottom of the slots in the housings.

A shaft 16 journaled on the end frames in bearings 17 is provided with a hand lever 18 and with crank arms 19. Rods 21 curved and connected at one end to the respective crank arms are adjustably secured at their other end to the slotted housings 22. Bearings 23 slidably mounted in the respective said housings are pivotally secured to and near the periphery of the corresponding disk 8. Coiled springs 24 emplaced within the respective housings 22 may be adjusted by means of screws 25 in one end thereof for maintaining the bearings 23 under a yielding pressure in contact with the opposite end of the slots therein as shown in Fig. 5.

In operation, the springs for the roll bearings may be adjusted as desired for light pressure of the rolls on the apron, and the spring in the connecting rod housing may be adjusted to maintain the bearing immovable therein. For heavy work however, the latter spring may be adjusted to exert a light yielding pressure on the connecting rod bearing and the former springs may be adjusted to maintain the roll bearings substantially immovable whereby the passing of an obstruction under one of the pressure rolls will cause the corresponding angular levers to rotatively actuate the disks to compress the springs in the connecting rod housings and lift all the pressure rolls simultaneously.

The angular arms are constructed in such manner that they may be used interchangeably and for either end of either of the rolls. The hand lever serves to turn the shaft with the crank arms on a dead center in relation to the connecting rods whereby the rolls may be moved and maintained under great pressure with relatively little exertion of the operator.

Having fully described my improvements,

what I claim as my invention and desire to secure by Letters Patent of the United States is:—

1. A mangle comprising end frames, a
5 drier journaled thereon, an endless apron partially encircling the drier, disks mounted concentric with the ends of the drier, interchangeable angular levers fulcrumed at intervals on the frames and movably engaging
10 with the disks, pressure rolls carried by said levers and cooperating with the drier, and lever mechanism yieldingly connected with the disks whereby the levers may be moved and maintained with the rolls under
15 a yielding pressure on the apron in contact with the drier.

2. A mangle comprising end frames, a drier journaled thereon, pressure rolls cooperating with the drier, rotatively adjustable disks, lever connections between the
20 rolls and disks, a shaft provided with a hand lever and with crank arms, and curved

pitman adjustably connecting the disks with said arms for automatically locking the disks with the crank arms on the center. 25

3. In a mangle the combination of a drier journaled in fixed bearings, interchangeable angular levers fulcrumed at fixed points in relation thereto, pressure rolls movably supported by said levers for cooperating with
30 the drier, an apron interposed between the rolls and the drier, adjusting springs for maintaining the respective rolls with the apron in contact with the drier under different yielding pressures, and adjustable lever mechanism for simultaneously moving
35 and maintaining the levers with the rolls and apron under proportionately increased pressures.

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Witnesses:

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