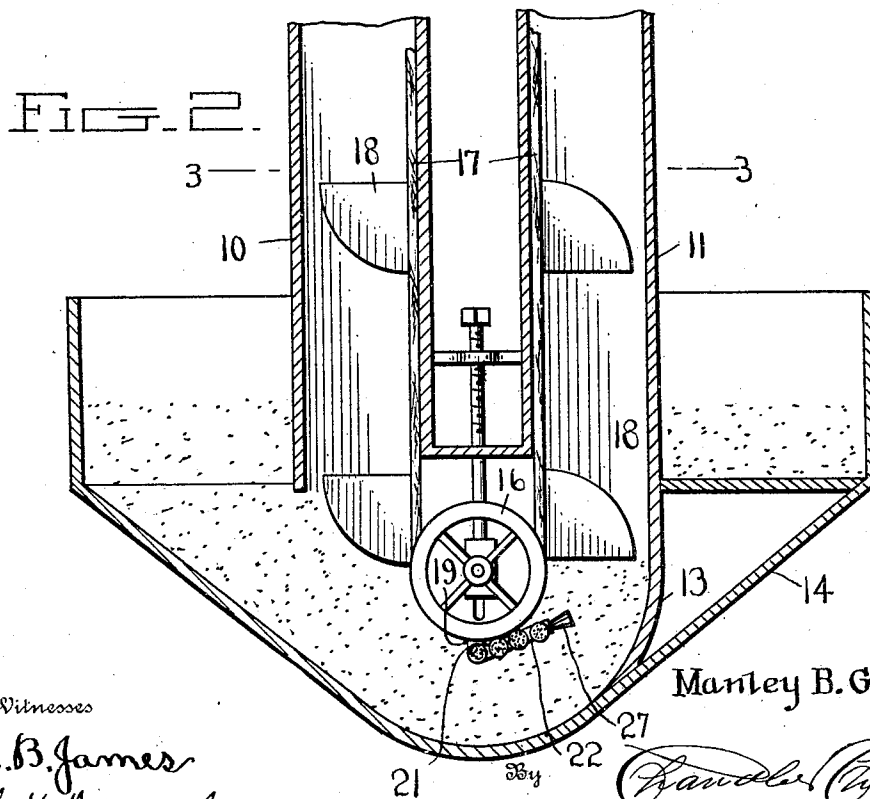
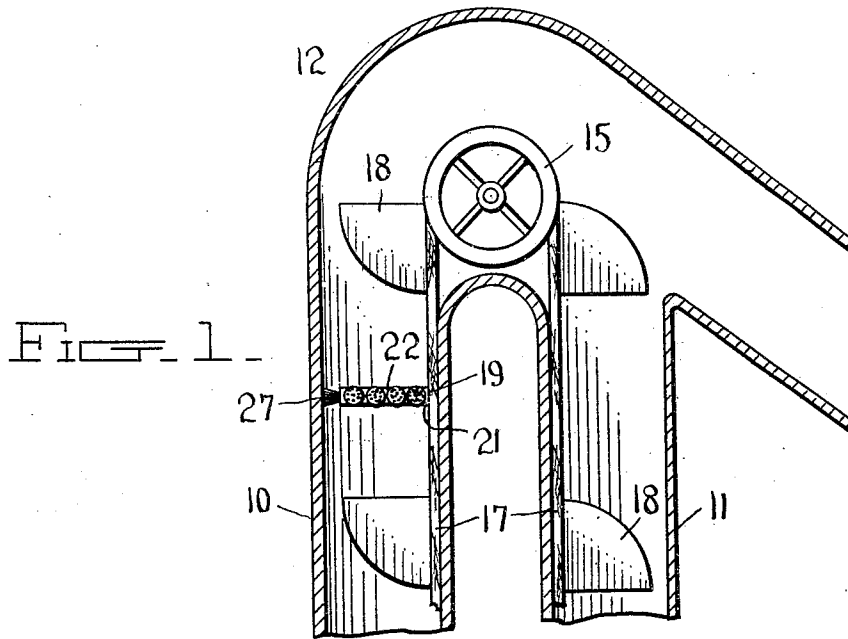


M. B. GOFF.
ELEVATOR BRUSHING DEVICE.
APPLICATION FILED JUNE 30, 1908.

932,981.

Patented Aug. 31, 1909.

2 SHEETS—SHEET 1.



Witnesses

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2 SHEETS—SHEET 2.

FIG. 3—

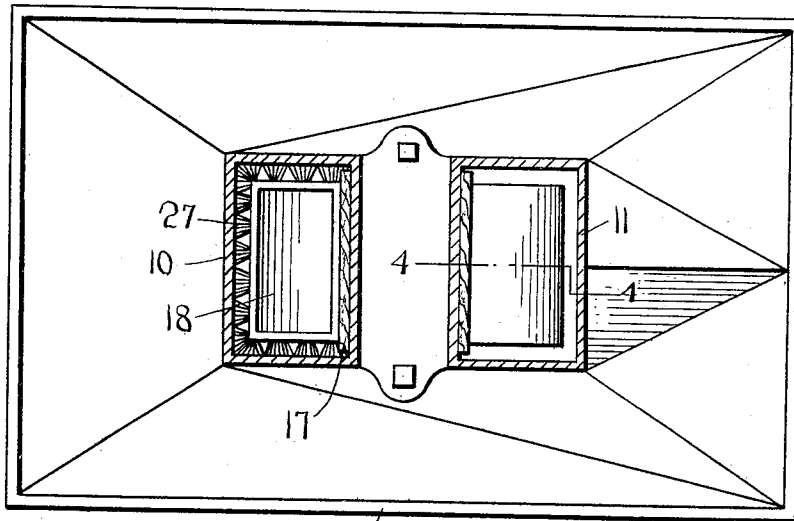


FIG. 4—

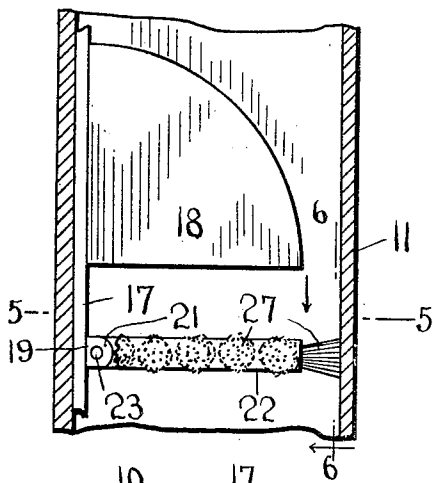


FIG. 5—

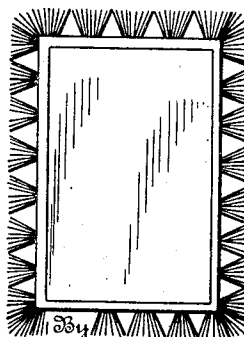
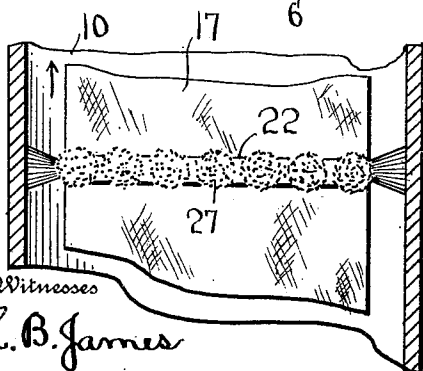
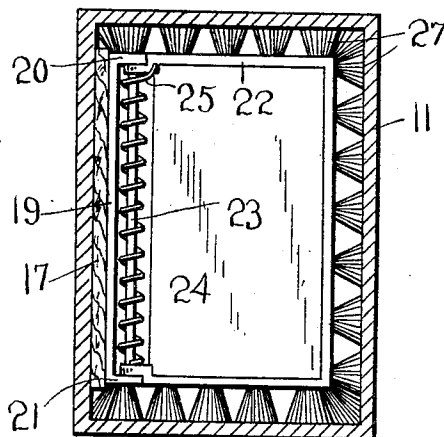


FIG. 7—

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FIG. 6—

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UNITED STATES PATENT OFFICE.

MANLEY B. GOFF, OF DUBOIS, PENNSYLVANIA.

ELEVATOR BRUSHING DEVICE.

932,981.

Specification of Letters Patent.

Patented Aug. 31, 1909.

Application filed June 30, 1908. Serial No. 441,106.

To all whom it may concern:

Be it known that I, MANLEY B. GOFF, a citizen of the United States, residing at Dubois, in the county of Clearfield, State of Pennsylvania, have invented certain new and useful Improvements in Elevator Brushing Devices; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to brushing devices adapted to the elevators employed in flour mills, and for similar purposes, and has for one of its objects to prevent the deposit therein of the webs and nests of insects and to remove the webs and nests which may have been deposited therein.

Another object of the invention is to provide a brush device adapted to be attached to the endless elevator belt and arranged to yield to the pressure of the material when passing through the "boot" of the elevator.

With these and other objects in view the invention consists of an open rectangular frame corresponding substantially in area to the buckets or cups of the elevator and adapted to be attached by one of its side members to the elevator belt and between two of the buckets, with the unconnected sides of the frame provided with brush elements such as bristles, broom corn, or the like and projecting therefrom for contacting with the interior of the "leg" or spout portions through which the belt of buckets pass.

The invention further consists in a bar adapted to be attached to an elevator belt between the buckets or cups and with laterally extending ends and a frame swinging from said lateral ends and provided with brush elements, the swinging frame yieldably supported by a suitably arranged spring.

The invention further consists in certain novel features of construction as hereafter shown and described, and then specifically pointed out in the claims, and in the drawings illustrating the preferred embodiment of the invention, Figure 1 is a sectional view of the upper portion of an elevator "leg" including the belt and the buckets or cups, with the improved brush device attached. Fig. 2 is a similar view of the lower

portion of the leg including the "boot" or hopper and the belt and its buckets with the improved brush device attached, and illustrating the action of the brush device when passing through the material in the "boot." Fig. 3 is a plan view in section on the line 3—3 of Fig. 2 with the brush showing beneath one of the buckets. Fig. 4 is a sectional detail, enlarged, showing the construction more fully. Fig. 5 is a section on the line 5—5 of Fig. 4. Fig. 6 is a section on the line 6—6 of Fig. 4. Fig. 7 is a view similar to Fig. 5 illustrating a slight modification in the construction.

Much annoyance and loss results in milling operations from the depredations of the insects known as "Mediterranean moth miller", and the "legs" of the elevators are the favorite nesting places of these insects, who spread their webs and lay their eggs in the corners of the legs which are not reached by the moving buckets or cups, and to provide a simple means whereby the whole interior surfaces of the spouts through which the buckets pass may be thoroughly brushed while at the same time not interfering with the operations of the buckets is the principal object of the present invention.

The improved device may be applied to any of the elevator legs in common use without changing or modifying them, as the improved device is applied to the belt between two of the buckets, and does not interfere with their operation.

In the drawings illustrative of the application and operation of the improved device is shown an ordinary elevator leg together with its "boot" or receiving hopper, the spouts forming the body of the leg represented at 10—11, the head of the leg at 12, the foot at 13, the boot or hopper at 14, the upper pulley at 15, the lower pulley at 16, the endless belt at 17, and the buckets or cups at 18, these parts being of the usual form.

The improved device comprises a bar bolted or otherwise attached to the belt transversely thereof between two of the buckets 18 and with the ends 20—21 extending laterally and apertured.

Swinging by its ends upon the apertured ends 20—21 of the bar 19 is a U shaped frame 22, the ends of the bar and the ends

of the frame being pivotally united by a rod 23.

Surrounding the rod 23 is a spring 24 connected at one end at 25 to one of the lateral
5 ends of the bar 19 and at the other end to the rod 23, the spring being so arranged as to exert its force to maintain the frame 22 normally and yieldably at right angles to the belt 17 and the spout members 10—11
10 of the leg.

The frame 22 is preferably formed of a single piece of flat metal and disposed edge-wise to the direction of movement of the belt so as to present the least obstruction to
15 its passage through the material in the "boot", and which will yield to abnormal pressure either from the material in the boots, or from obstructions in the spouts. The frame 22 is provided with brush elements
20 27 which may be of any suitable material, such as bristles, broom corn or other fibers, fine wires, or the like, and will extend to and engage against all the inner surfaces of the spout members 10—11 except the
25 sides against which the belt runs. The frame 22 corresponds in area to the upper or open sides of the buckets 18, which are smaller than the spouts 10—11, and the brush elements extend sufficiently to bear against
30 every part of the interior of the spouts, and thus thoroughly brush the same. Under some circumstances the frame 22 and the bar 19 may be formed integral as shown in Fig. 7, when the elevator is employed in handling material which offers slight resistance
35 to the passage of the frame.

The improved device is simple in construction, can be inexpensively manufactured and adapted to elevator legs of all sizes and
40 forms, and to elevators employed for handling various qualities of material, but as above stated is more particularly adapted to elevators employed in flour mills for the purpose of clearing them from the webs and
45 nests of insects, and to prevent the insects

from building their webs and nests in the spouts of the legs.

What is claimed, is:—

1. A device of the class described, comprising a bar adapted to be attached to an elevator belt and with laterally extended
50 apertured ends, a U-shaped frame swinging at its terminals upon said extended ends, brush elements carried by said frame and extending outwardly therefrom, and a spring
55 carried by said bar and operating to maintain said frame normally and yieldably connected to the bar.

2. The combination with an elevator including a chute, a belt and a plurality of
60 buckets spaced apart upon the belt, of a bar attached to said belt between two of said buckets, said bar having laterally extended ends, a U-shaped frame swinging at its terminals upon said lateral ends, brush elements
65 carried by said frame and extending outwardly therefrom, and a spring carried by said bar and operating to maintain said frame normally and yieldably connected to the bar.
70

3. A device of the class described comprising a bar adapted to be attached to an elevator belt and with laterally extended
apertured ends, a rod extending through said apertures and between said lateral ends, a
75 U shaped frame swinging upon said rod, brush elements carried by said frame and extending outwardly therefrom, and a spring coiled around said rod with one end connected to said bar and the other end connected to said frame and operating to maintain said frame normally and yieldably connected to the bar.
80

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

MANLEY B. GOFF.

Witnesses:

A. J. HAAG,
D. L. SHAFER.