M. BILICKI.

SUCTION HOOD.

APPLICATION FILED AUG. 18, 1915.

1,174,659. Patented Mar. 7, 1916.

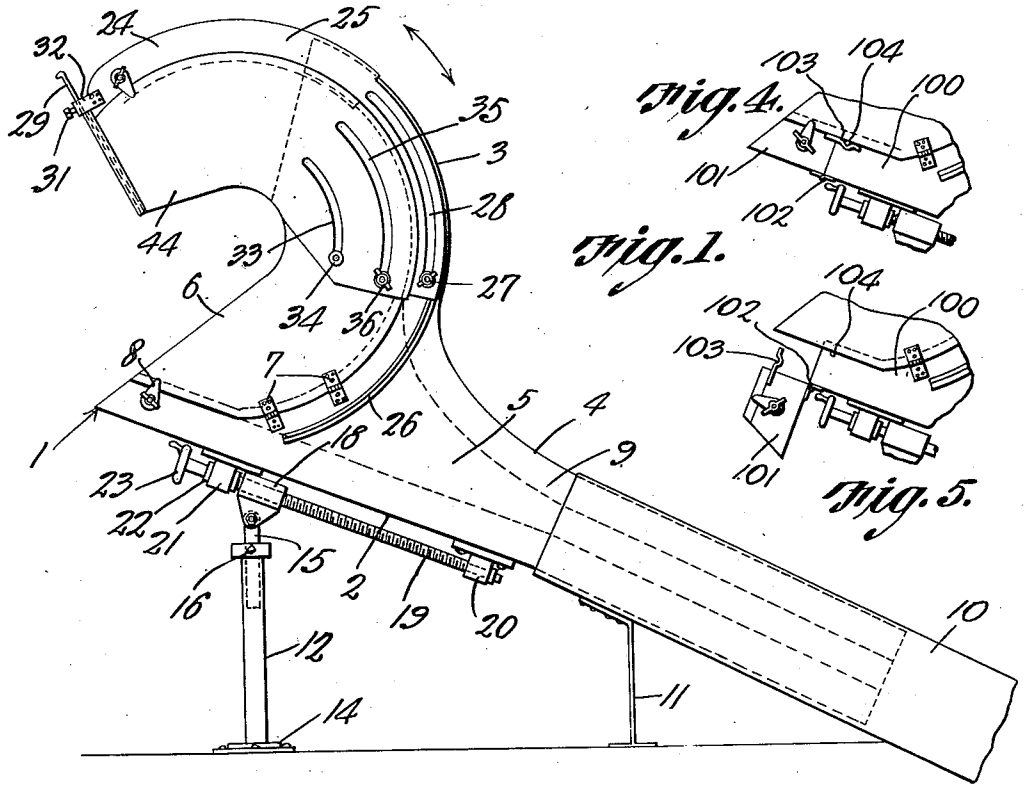


Fig. 1.

Fig. 4.

Fig. 5.

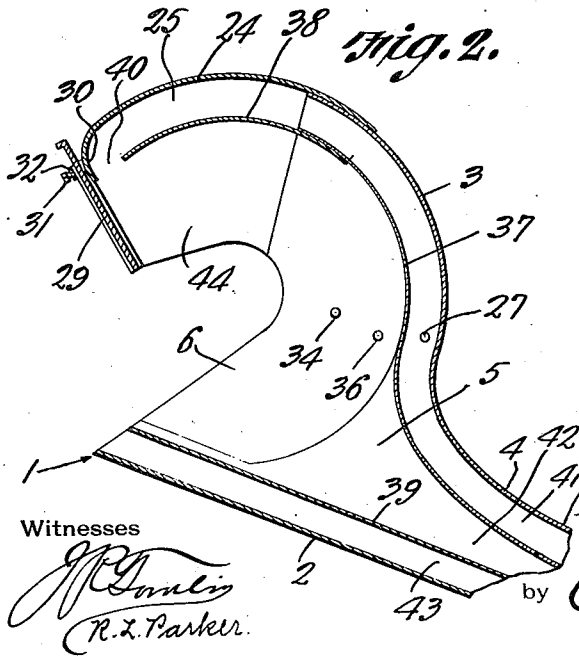


Fig. 2.

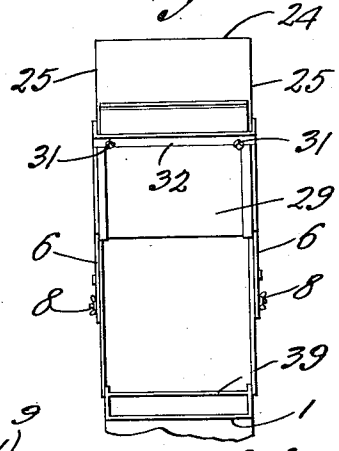


Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

MARTIN BILICKI, OF MILWAUKEE, WISCONSIN.

SUCTION-HOOD.

1,174,659. Specification of Letters Patent. Patented Mar. 7, 1916.

Application filed August 18, 1915. Serial No. 46,207.

To all whom it may concern:

Be it known that I, MARTIN BILICKI, a subject of the Emperor of Germany, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a new and useful Suction-Hood, of which the following is a specification.

The device forming the subject matter of this application is adapted to be employed in connection with grinding, polishing and buffing machines, for the purpose of carrying away the dust produced during the operation of such structures.

The invention aims to provide, in a device of this class, a casing the constituent parts of which may be properly adjusted to receive the work in hand and for other purposes.

A further object of the invention is to provide a novel arrangement of draft conduits in the casing, to the end that the detached material may be carried off readily.

A further object of the invention is to provide novel means for producing relative movement between the casing and the suction pipe into which the casing is telescoped.

It is within the province of the disclosure to improve generally and to enhance the utility of devices of that type to which the present invention appertains.

With the above and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawing: Figure 1 shows the invention in side elevation; Fig. 2 is a fragmental longitudinal section; Fig. 3 is an end elevation; Figs. 4 and 5 are fragmental side elevations showing slight modifications in the invention.

In carrying out the present invention there is provided a casing including a hood denoted generally by the numeral 1, the hood 1 including a bottom 2, a curved top 3 merging into an extension 4, fixed sides 5, and movable sides 6 assembled with the fixed sides 5 by means of hinges 7, there being latches 8 on the fixed sides 5 which engage the movable sides 6 to hold the latter in place. The parts 2, 5 and 4 define a reduced throat 9 telescoped into an outlet pipe 10 upheld by a support 11.

The invention comprises a longitudinally extensible pedestal embodying a tubular socket 12 carried by a foot plate 14. Telescoped into the socket 12 is a standard 15 held in place by a set screw 16. Pivoted as shown at 16 to the standard 15 is a nut 18 into which is threaded a screw 19 journaled for rotation in bearings 20 and 21 which are mounted on the bottom 2 of the hood 1. Collars 22 are carried by the screw, the collars coacting with the bearing 21 to prevent the screw from moving endwise. Any suitable means, such as a hand wheel 23, may be employed for imparting rotation to the screw 19.

From the foregoing it will be understood that when the screw 19 is rotated by means of the hand wheel 23, the hood 1 will be advanced and retracted with respect to the work, the throat portion 9 of the hood sliding in the outlet pipe 10.

The invention includes an arcuate extension 24 embodying depending side walls 25 adapted to move on arcuate tracks 26 carried by the fixed sides 5 of the hood 1. Clamping bolts 27 are carried by the fixed sides of the hood 1 and move in slots 28 formed in the side portions 25 of the extension 24.

From the foregoing it will be obvious that the extension 24 may be adjusted circumferentially, and be held in adjusted positions by means of the clamping bolts 27. Projecting across the forward end of the extension 24 is a gate 29 coacting with the forward end wall 30 of the extension. The gate 29 is adjustable transversely of the extension, and is held in adjusted positions by means of set screws 31 threaded into a bracket 32 secured to the side walls 25 of the extension 24. The extension 24 includes circumferentially adjustable side walls 44 having arcuate guide slots 33 receiving guide pins 34 carried by the movable sides 6. Clamp bolts 36 carried by the sides 6 move for adjustment in slots 35 in the walls 44. It will now be observed that the side walls 44 may be adjusted circumferentially independently of the parts 25—24, or may be adjusted simultaneously therewith.

Mounted in the hood 1 is a curved partition 37 which is extended into the throat 9. Slidably coacting with the partition 37 is a partition 38 carried by the side walls 25

of the extension 24 and terminally spaced from the gate 29, as shown at 40. Mounted in the hood 1 and extended into the throat 9 is a partition 39. The partitions 39 and 37 coöperate to define an upper conduit 41, an intermediate conduit 42 and a lower conduit 43, through any or all of which the dust produced may be sucked away through the pipe 10. The gate 29 may be raised and lowered, and the side walls 44 may be adjusted circumferentially alone, or with the hood extension proper 24—25.

In Figs. 4 and 5 of the drawings, the bottom of the hood is denoted by the numeral 100. An extension 101 is hinged thereto as shown at 102. The extension 101 carries a latch 103 adapted to engage a projection 104 on the bottom portion 100 of the hood. The extension 101 is releasably upheld in the position shown in Fig. 4 but is adapted to swing into the depending position shown in Fig. 5 should the casting or other object which is being operated upon drop out of the hand of the operator. An injury to the operator, thus is avoided.

Having thus described the invention, what is claimed is:—

1. In a device of the class described, a casing terminating in a suction throat; a gate closing the upper, forward portion of the casing; and a pair of upper and lower longitudinal partitions in the casing and extended toward the throat, the partitions defining upper, intermediate and lower suction conduits in the casing, the upper partition terminating in spaced relation to the gate.

2. In a device of the class described, a hood; and an extension circumferentially adjustable on the upper portion of the hood, the casing comprising a top and side walls, the top and the side walls being circumferentially adjustable independently of each other; and a gate mounted on the top and movable transversely of the top, the gate coacting with the side walls.

3. In a device of the class described, a suction pipe; a casing including a reduced throat slidable on the suction pipe; a screw journaled for rotation on the casing but held against longitudinal movement thereon; a nut into which the screw is threaded; and means for supporting the nut independently of the casing.

4. In a device of the class described, a casing including a reduced throat; a suction pipe receiving the throat in telescoped relation; a screw journaled on the casing but held against longitudinal movement thereon; a nut into which the screw is threaded; a longitudinally extensible pedestal comprising relatively movable parts; means for holding said parts together against relative longitudinal movement; and means for pivotally connecting one of said parts with the nut.

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

MARTIN BILICKI.

Witnesses:
O. A. Olsen,
Michael Dziurdziewski.