

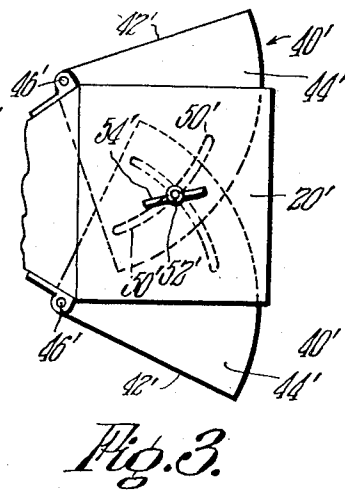
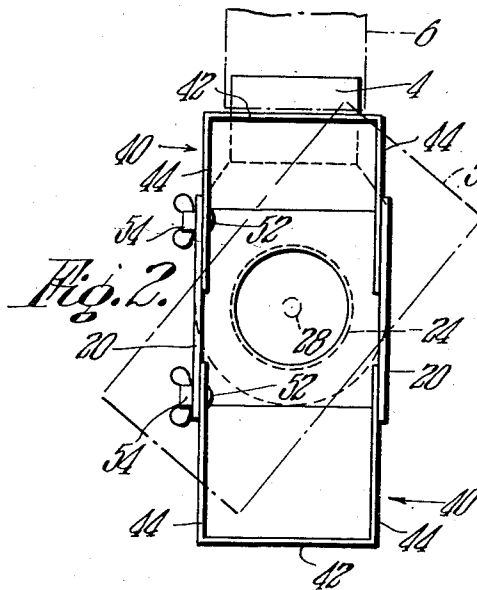
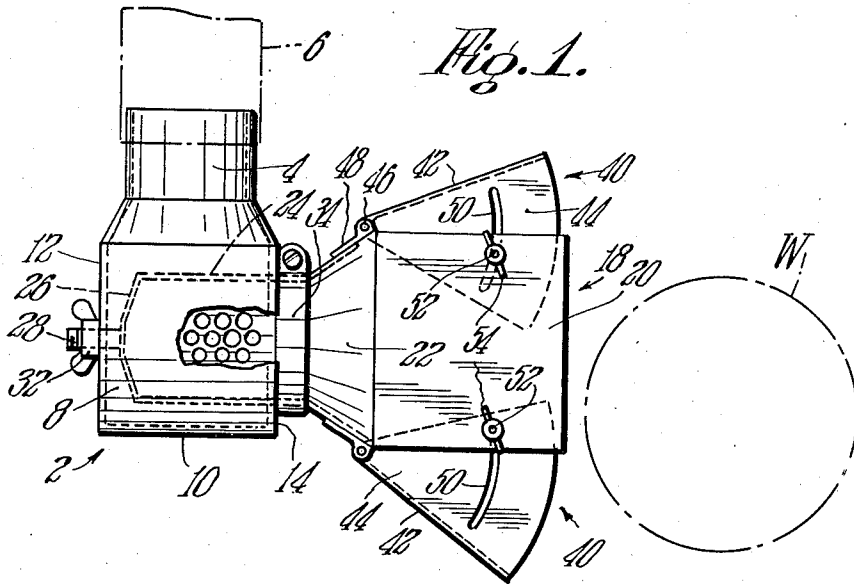
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DUST COLLECTING APPARATUS

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DUST COLLECTING APPARATUS

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4 Claims. (Cl. 51-273)

This invention relates to improvements in apparatus for collecting dust and grindings in connection with grinding operations.

In connection with grinding operations, more particularly dry grinding, there is a considerable amount of dust and grindings which it is necessary to collect and according to this invention there is provided an apparatus which is adapted for broad application in the collecting of such dust, grindings and the like.

The apparatus is adjustable whereby it is possible to position the same closely adjacent the grinding apparatus thereby to bring about the most efficient collection of the dust.

With the foregoing and various other novel features and advantages and other objects of my invention as will become more apparent as the description proceeds, the invention consists in certain novel features of construction and in the combination and arrangement of parts as will be hereinafter more particularly pointed out in the claims hereunto annexed and more fully described and referred to in connection with the accompanying drawing wherein:

Figs. 1 and 2 are side and front elevational views showing one form of collecting apparatus embodying the novel features of the invention; and

Fig. 3 is a partial view similar to Fig. 1 showing another form of the invention.

Referring now to the drawing more in detail, the invention will be fully described.

A housing is represented by 2 which on its upper side is provided with a stack 4 that may be connected to a conduit shown in dot-dash lines 6. The conduit 6 will be connected to a suitable suction means whereby dust and the like may be drawn into and from the housing.

The housing has side, bottom, rear and front walls 8, 10, 12 and 14 and may be formed from sheet metal or the like.

A hood 18 has forwardly extending spaced side walls 20 and a rear tubular part 22 which merges into a cylindrical barrel portion 24. The barrel portion has an end wall 26 and it is journaled for rotation in an opening provided in the front wall 14 of the housing.

A screw 28 extends from the end wall 26 through an opening in the end wall 12 of the housing and a thumb nut 32 is in engagement therewith. A collar 34 around the barrel 24 is adapted to abut the front wall 14 of the housing and the screw and nut provide means for securing the barrel and hood in adjusted angular positions. The barrel portion is preferably perforated as shown.

Wings or deflectors 40 have outer walls 42 and side walls 44. Said deflectors are hinged at 46 to brackets 48 secured to the hoods. The side walls 44 of the deflectors are disposed adjacent the inner sides of the side walls 20 of the hood and one side wall of each deflector is provided with a slot 50.

Clamp bolts 52 extend through the slots 50 and side wall 20 of the hood and thumb nuts 54 in engagement therewith serve to releasably secure the deflectors in various positions of adjustment.

The hood may be rotated relative to the housing and locked in an adjusted position such as shown by dot-dash lines 54' in Fig. 2. The deflectors are adapted for independent movements to various positions wherein they may be releasably locked.

In Fig. 3 deflectors 40' have outer and side walls 42' and 44' and are hinged at 46'. The side walls 44' are disposed adjacent the walls 20' of the housing and have slots 50' therein. A single clamp bolt 52' extends through at least one side wall 20' and the slots 50' and a thumb nut 54' is provided for tightening the bolt to clamp the side walls.

The apparatus may be adjusted to accommodate a particular grinding apparatus or grinding operation and functions for the most efficient collection of dust and the like. A grinding wheel is represented by the dot-dash lines W.

The barrel 24 being perforated as it is and spaced from the walls of the housing the most efficient suction action is possible. The barrel and hood may be removed from the housing by removing the thumb nut 32 to facilitate the removal of heavier material which may lodge in the apparatus.

The invention may be embodied in other specific forms without departing from the essential characteristics thereof. Hence, the present embodiments are therefore to be considered in all respects merely as being illustrative and not as being restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description, and all modifications and variations as fall within the meaning and purview and range of equivalency of the appended claims are therefore intended to be embraced therein.

What it is desired to claim and secure by Letters Patent of the United States is:

1. Dust collecting apparatus comprising in combination, a housing having front and rear walls and a stack extending upwardly therefrom, a hood having forwardly disposed spaced side

walls and a rearwardly extending perforated barrel portion journaled in an opening provided in the front wall of the housing, and deflectors hinged to the housing adjacent the rear ends of the side walls thereof extending between and closing the space at the upper and lower portions of the said side walls.

2. Dust collecting apparatus comprising in combination, a housing having front and rear walls and a stack extending upwardly therefrom, a hood having forwardly disposed spaced side walls and a rearwardly extending perforated barrel portion journaled in an opening provided in the front wall of the housing, and deflectors hinged to the housing adjacent the rear ends of the side walls thereof extending between and closing the space at the upper and lower portions of the said side walls, and means for releasably securing the hood in adjusted positions relative to the housing.

3. Dust collecting apparatus comprising in combination, a housing having front and rear walls and a stack extending upwardly therefrom, a hood having forwardly disposed spaced side walls and a rearwardly extending perforated barrel portion journaled in an opening provided in the front wall of the housing, and deflectors hinged to the housing adjacent the rear ends of the side walls thereof extending

between and closing the space at the upper and lower portions of the said side walls, means for releasably securing the hood in adjusted positions relative to the housing, and means for releasably securing the deflectors in adjusted positions relative to the hood.

4. Dust collecting apparatus comprising in combination, a hollow housing having front and rear walls and a stack extending upwardly therefrom, a hood adjacent said front wall having a rear perforated tubular barrel portion journaled in an opening provided in said front wall and extending into said housing, a rear wall on the inner end of said barrel portion having a screw extending therefrom through said rear wall, a nut on said screw outside said rear wall for clamping the barrel against movement, side walls extending forwardly of the barrel portion of the hood having spaced apart upper and lower edges, deflectors having outer walls and side walls extending inwardly therefrom adjacent the inner sides of said spaced side walls closing the spaces between the upper and lower edges of said side walls, and hinged connections between the deflectors and hood at adjacent the inner ends of the side walls, and means for releasably securing the deflectors to the hood in various positions of adjustment.

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