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W., G. & E. HAGSTROM.

CUP ATTACHMENT FOR AUGERS.

APPLICATION FILED JUNE 28, 1907.

Fig. 1.

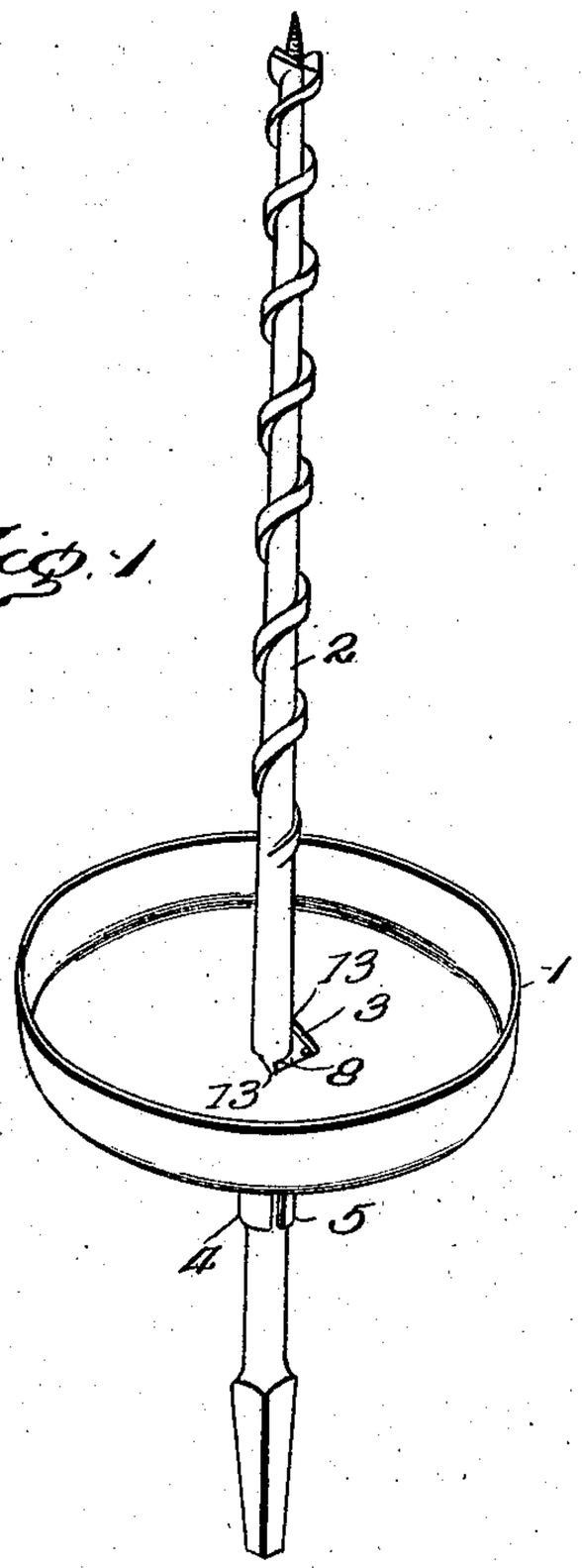


Fig. 2.

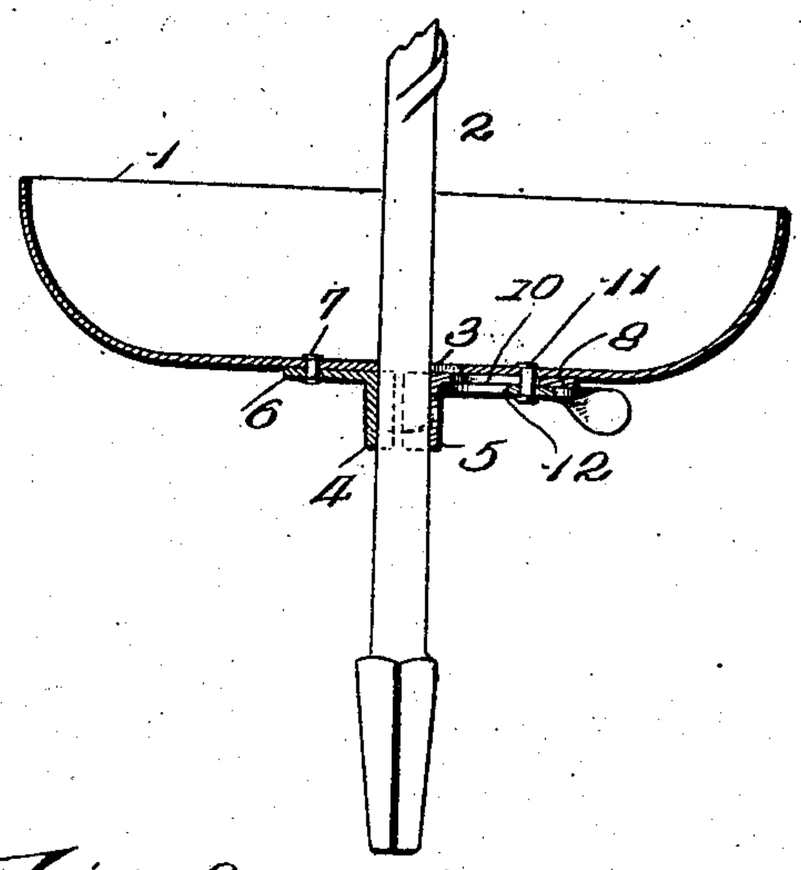


Fig. 3.

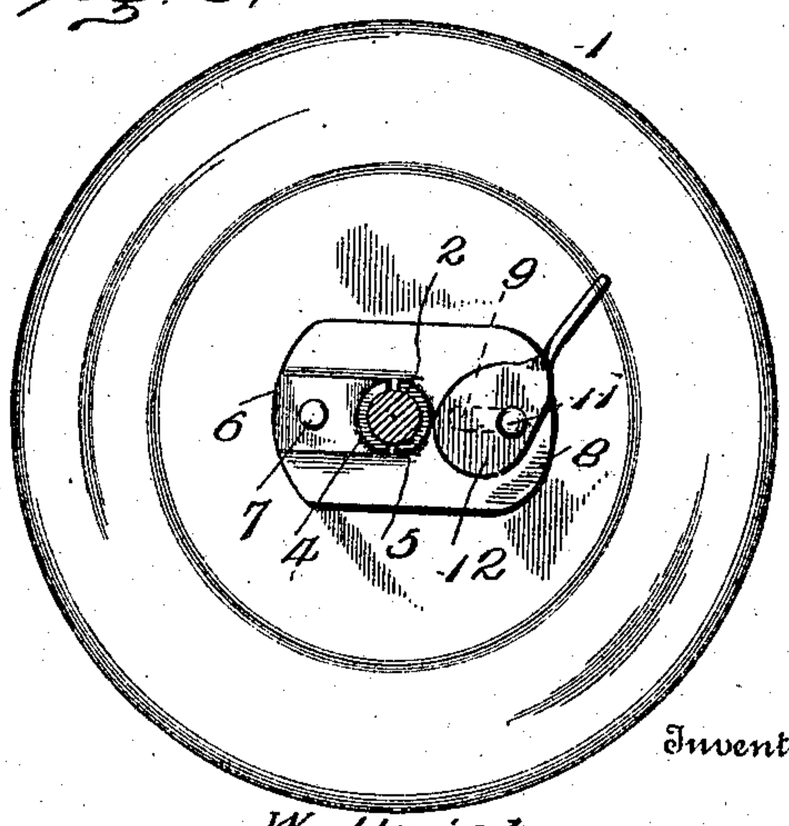
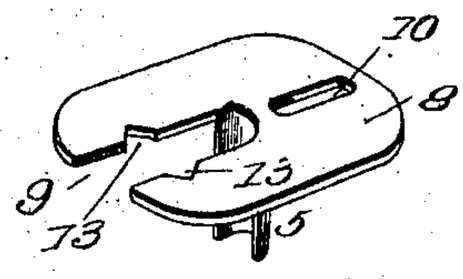


Fig. 4.



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UNITED STATES PATENT OFFICE.

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CUP ATTACHMENT FOR AUGERS.

No. 881,856. Specification of Letters Patent. Patented March 10, 1908.

Application filed June 28, 1907. Serial No. 381,381.

To all whom it may concern:

Be it known that we, WILLIAM HAGSTROM, GUSTAF HAGSTROM, and EMANUEL HAGSTROM, citizens of the United States, residing at Lindsborg, in the county of McPherson and State of Kansas, have invented certain new and useful Improvements in Cup Attachments for Augers, of which the following is a specification.

This invention provides means for use in connection with a drill, bit or other boring tool to catch the cuttings, particularly when using the tool overhead as when boring into a ceiling or other structure above the head of the workman, thereby preventing the cuttings from falling upon the workman, on the floor or other surface below.

The attachment is in the nature of a cup and is of especial advantage when boring vertically into ceilings of rooms, apartments and offices that are furnished and occupied, thereby preventing the scattering of plaster, mortar and the like upon floor coverings and furniture.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings.

While the invention may be adapted to different forms and conditions by changes in the structure and minor details without departing from the spirit or essential features thereof, still the preferred embodiment is shown in the accompanying drawings, in which:

Figure 1 is a perspective view showing the application of the invention to an auger. Fig. 2 is a vertical central section of the attachment or cup, indicating the relative position of the auger. Fig. 3 is a view of the cup or attachment inverted, showing the auger and the clamp in section. Fig. 4 is a detail perspective view of the movable clamp member.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The attachment consists of a cup 1 which is adapted to be secured upon an auger, bit or like boring tool 2, with the hollow side arranged to fit uppermost so as to catch cuttings and the like when boring an opening. The cup 1 may be of any size and construction and is preferably formed of metal so as to withstand rough usage. An opening 3 is formed centrally of the cup for the passage therethrough of the auger or other boring tool 2.

For securing the cup to the auger or boring tool, clamp means are fitted to the cup and comprise jaws 4 and 5. The jaw 4 is fixed, whereas the jaw 5 is movable, said jaws being arranged upon opposite sides of the opening 3 and arranged to embrace the sides of the auger or boring tool 2 so as to obtain a firm grip and hold the cup in proper position to catch the cuttings without spilling the same. The jaws 4 and 5 are of a length to make substantial engagement with the boring tool so as to hold the cup steady and their gripping faces are made hollow to form seats in which side portions of the auger or boring tool fit. The fixed jaw 4 may be secured to the cup in any manner and is provided with a base 6 which is placed against the underside of the cup and riveted or otherwise secured thereto by means of a suitable fastening 7. The movable jaw 5 is provided with a base 8 which has an open slot 9 at one end to embrace opposite sides of the base 6, and a narrow slot 10 near its opposite end to receive a fastening 11. The portion partly cut from the plate forming the base 8 is bent outward therefrom to form the jaw 5. By having the opposite edges of the open slot 9 engaging with opposite edges of the base 6, the movable jaw is directed in its movements when caused to clamp or release the cup.

Suitable means coöperate with the movable jaw 5 to press the same towards the fixed jaw 4 to effect clamping of the cup upon the auger or boring tool. As shown a cam lever 12 is provided and is mounted upon the fastening 11 and overlaps the narrow slot 10 and the base 8 and confines the latter to the cup. The cam lever 12 is adapted to have its cam portion engage with the jaw 5 so as to force the same towards the jaw 4 when operating the clamp to secure the device upon the boring tool. In order to provide ample clearance for the angular shank of the auger or boring tool, notches 13 are formed in opposite sides of the cup and members of the base 8 bordering upon the slot 9 so as to admit of the ready passage of diagonally opposite corner portions of the shank of said boring tool when placing the same in position or removing it from the cup.

The device herein described may be quickly fitted to a boring tool, such as generally used for boring openings and applied to a brace, said attachment being of essential advantage for mechanics when boring openings in ceilings for the passage of wires, pipes or other appliances after a room, office or apartment has been occupied and furnished, thereby catching the cuttings and preventing scattering of the same upon the workmen and over floor coverings, furniture and the like.

Having thus described the invention, what is claimed as new is:

1. In combination with a cup for use in connection with a boring tool for catching cuttings and which cup has an opening for the reception of the boring tool, a fixed jaw secured to the cup upon one side of the opening, a movable jaw arranged upon the opposite side of said opening, and a cam lever cooperating with the movable jaw to advance the same towards the fixed jaw.

2. In combination with a cup for use in connection with a boring tool for catching cuttings and which cup has an opening for the reception of the boring tool, a fixed jaw secured to the cup upon one side of the opening, a movable jaw arranged upon the opposite side of said opening, said movable jaw having a base in which is formed a slot, a cam lever overlapping said base to confine the same between it and the cup, and a fastening connecting the cam lever to the cup and passed through said slot in the base of the movable jaw.

3. In combination with a cup for use in connection with a boring tool for catching cuttings and which cup has an opening for the reception of the boring tool, a fixed jaw secured to the cup upon one side of the opening, a movable jaw arranged upon the opposite side of said opening, said movable jaw having a base formed with an open slot at one end to embrace the fixed jaw and having a narrow slot in its opposite end portion, a cam lever overlapping said base to confine the same between it and the cup, and a fastening connecting the cam lever and the cup and passed through said slot in the base of the movable jaw.

In testimony whereof we affix our signatures in presence of two witnesses.

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