Oct. 24, 1950 H. P. WHEELER 2,527,110

SUCTION HEAD

Filed Jan. 15, 1946 2 Sheets-Sheet 1

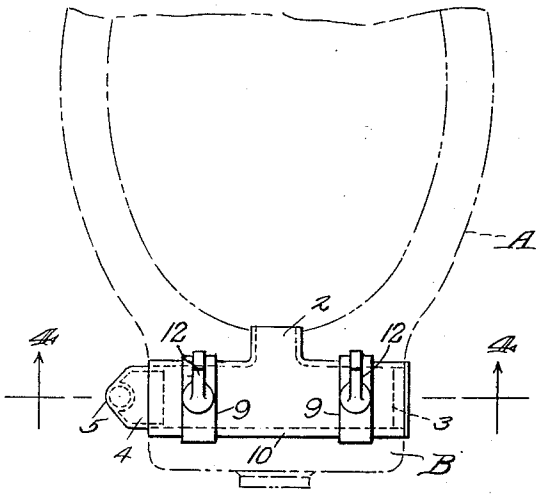


Fig. 1.

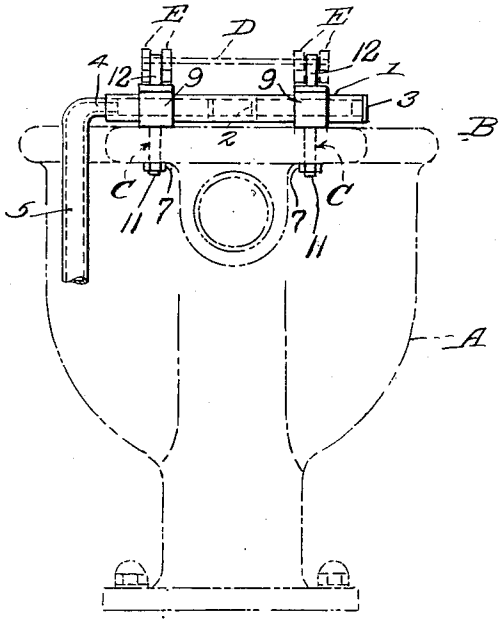


Fig. 2.

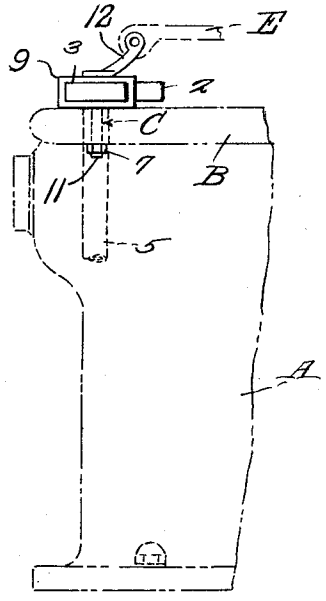


Fig. 3.

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Oct. 24, 1950 H. P. WHEELER 2,527,110

SUCTION HEAD

Filed Jan. 15, 1946 2 Sheets-Sheet 2

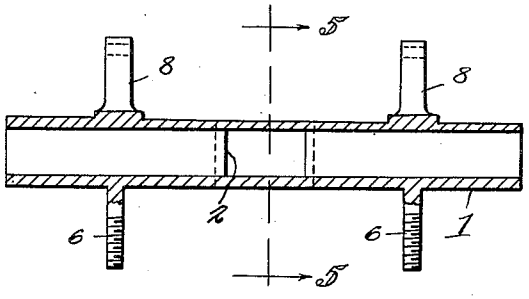


Fig. 4.

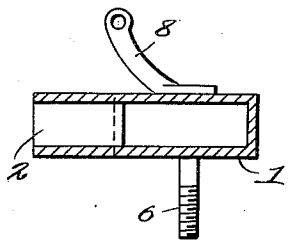


Fig. 5.

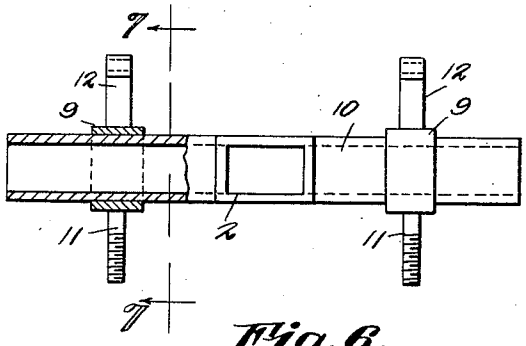


Fig. 6.

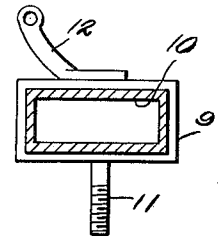


Fig. 7.

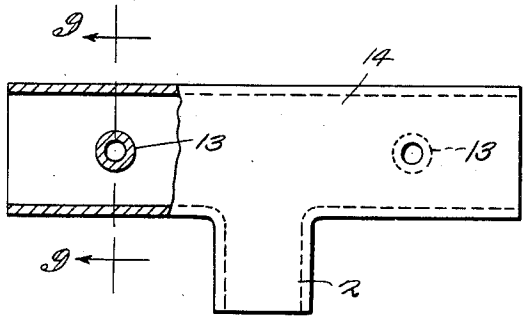


Fig. 8.

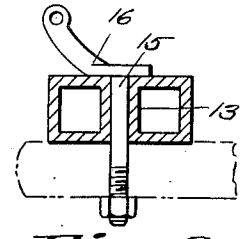


Fig. 9.

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UNITED STATES PATENT OFFICE

2,527,110

SUCTION HEAD

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Application January 15, 1946, Serial No. 641,227

1 Claim. (Cl. 4—217)

1

This invention relates to a suction head designed for use as a part of a ventilating system for toilet hoppers.

It is more especially an improved hinge member by which a toilet seat can be joined to a hopper.

Various means have been devised for withdrawing air from the upper portion of a hopper, but these generally have been difficult to install and have been objectionable because of their size and appearance.

An object of the present invention is to provide a suction head constituting one member of a hinge to which the seat carrying members of the usual form can readily be attached, the proportions and construction of the head being such as not to interfere with the proper positioning of the seat when closed.

Another object is to provide a suction head to either side of which can be connected a suction pipe leading to a fan located at any suitable point.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claim, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

In the accompanying drawings the preferred forms of the invention have been shown.

In said drawings

Figure 1 is a top plan view of the suction head, and shows the position of the hopper relative thereto.

Figure 2 is a rear elevation of the structure shown in Figure 1, the hinge members of the lid, as well as the hopper, being shown by broken lines.

Figure 3 is a side elevation of the structure shown in Figure 2.

Figure 4 is an enlarged longitudinal section through a modified form.

Figure 5 is a section on line 5—5, Figure 4.

Figure 6 is a view partly in section and partly in rear elevation of the form of Figure 1.

Figure 7 is a section on line 7—7, Figure 6.

Figure 8 is a view partly in section and partly in top plan of another modified form.

Figure 9 is a section on line 9—9, Figure 8.

Referring to the figures by characters of reference, A designates a portion of a toilet hopper of the usual construction having a rearward extension or ledge, B, with a flat top surface. This ledge generally is provided with a pair of openings C whereby hinge members may be securely attached thereto.

2

The present invention includes a flat head 10 which, in the form illustrated, is substantially rectangular and has a flat intake extension 2 projecting from one side thereof and so proportioned as to terminate substantially flush with the inner surface of the back portion of the hopper A. Both the head and its extension 2 are hollow and the extension normally is open at both ends. Either end, however, can be closed by means of a sealing block 3 which can be tightly wedged thereinto or otherwise held in place so as to prevent leakage of air or gas. The other end of the head is designed to receive the flat intake end 4 of a suction pipe 5 leading from said end any desired distance to a suction fan not shown.

In the structure illustrated in Figures 1 to 3 inclusive collars 9 surround the head 10 and are rigid with screw threaded stems 11 extending downwardly therefrom and spaced apart the usual distance between the openings C provided in the rear portion of a hopper. These stems are of such length as to project below the ledge portion B, so that they can be engaged by nuts 7 such as commonly employed. This head can be thus fixedly joined to the hopper and when so attached will be in proper position for attachment thereto of the seat.

Hinge members 12 in the form of posts which are rigid with the top portions of the respective collars 9 are extended upwardly therefrom and are so located as to be engaged by the usual pivot rod D which usually carries the hinge members E joined to the seat and its cover. It is to be understood that the head 10 is of such thickness that when the seat is connected thereto by means of the hinge members the head will not interfere with the proper positioning of the seat on the hopper.

When a suction is set up through the head from the intake nozzle or extension 2 to the pipe 5 a constant ventilation of the upper portion of the hopper is effected, as will be obvious.

By providing a head with an opening in each side either one of which can be sealed, it becomes possible to join the suction pipe to either side of the head as may be found most convenient.

Instead of forming the posts or hinge members 12 upon the collars 9, they can be made integral, as at 8, with a head 1 (Figures 4 and 5), said head

being also integral with depending screw threaded stems 6.

A further modification shown in Figures 8 and 9 employs spacing sleeves 13 which are located within the head 14 and made integral therewith. With this construction the screw threaded stems 15 can be seated in the sleeves and joined at their upper ends to the hinge members or posts 16.

What is claimed is:

As an attachment to the rear ledge of a toilet seat, a hinge member including a hollow head rectangular in cross section and having an intake nozzle and an outlet, and rectangular collars removably and snugly fitted around the end portions of the head, whereby said head will extend between the collars and prevent movement of the collars relative to each other and to the

head, the bottoms of said collars adapted to lie flat against the surface of the ledge, said collars including hinge posts rigid therewith and extending upwardly therefrom, and attaching stems rigid with and depending from said bottoms.

HERBERT P. WHEELER.

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