July 25, 1939. S. DUNER 2,166,944

WATER CLOSET

Filed March 1, 1937 2 Sheets-Sheet 1

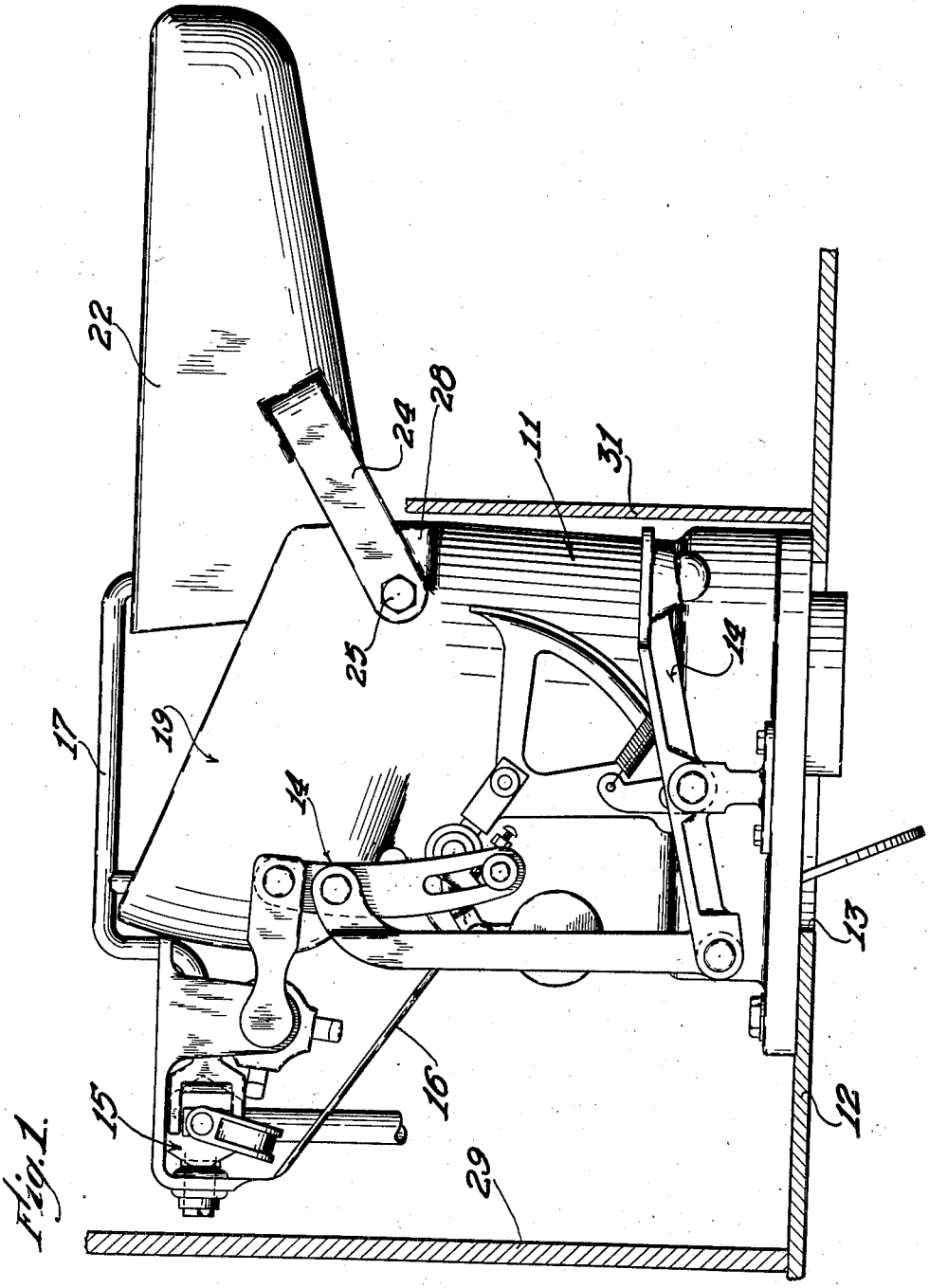


Fig. 1.

INVENTOR.
Sven Duner

BY

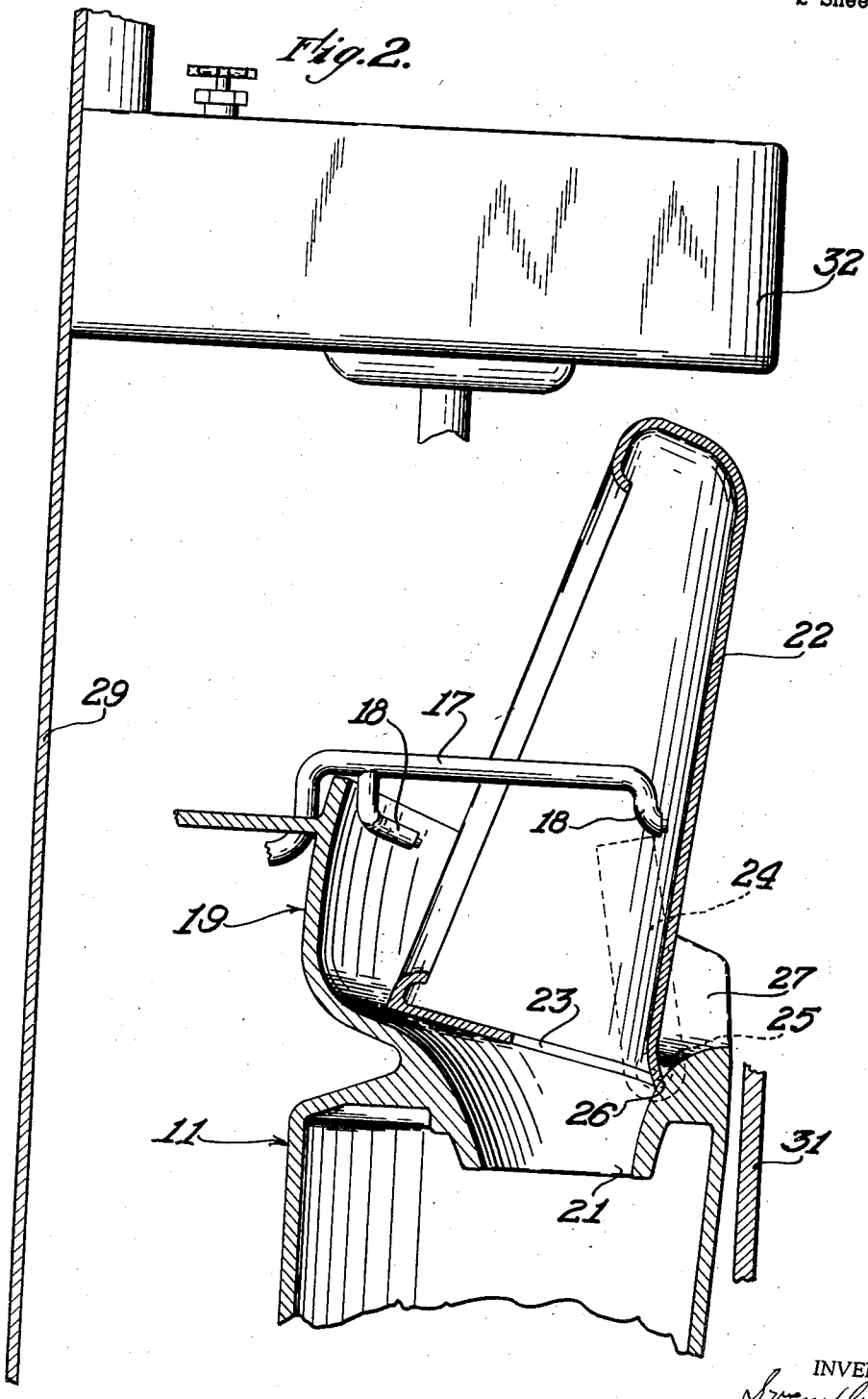
Rasmussen & Brugman
ATTORNEYS.

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Fig. 2.



INVENTOR.
Sven Duner

BY

Rasmussen & Brugman
ATTORNEYS

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2,166,944

WATER CLOSET

Sven Duner, Wheaton, Ill., assignor to Duner Co., Chicago, Ill., a corporation of Illinois

Application March 1, 1937, Serial No. 128,456

3 Claims. (Cl. 4—76)

This invention relates in general to water closets and more particularly to water closets for use in vehicles.

A principal object of the invention is the provision of a water closet of compact construction which will use a minimum amount of space.

Another important object of the invention is the provision of a water closet having a seat portion or receiving hopper which is adapted to be moved to retracted position when not in use.

A further important object of the invention is the provision of a water closet having a stationary bowl and flushing mechanism mounted thereon, and a seat portion or receiving hopper mounted for movement between operative and inoperative positions relative thereto.

Heretofore, it has been customary in vehicles where it is desired to provide a wash bowl and a water closet, and the space is limited, to mount the bowl above the closet so that it could be folded out of the way when it was desired to use the closet. Another object of the invention, therefore, is to provide a water closet having a seat portion or receiving hopper which is movable between operative and inoperative positions and is adapted in inoperative position to fit under a rigidly mounted wash bowl.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description, which, when taken in connection with the accompanying drawings, discloses a preferred embodiment thereof.

In the drawings,

Figure 1 is a side elevational view of a water closet embodying the features of the instant invention, showing the movable seat portion in operative position; and

Fig. 2 is a vertical sectional view of the device of Fig. 1 with the seat portion in inoperative position and showing a wash bowl mounted above the water closet.

Referring more particularly to the drawings, reference numeral 11 indicates in general the stand portion of a water closet embodying the features of the instant invention which is adapted to be mounted upon a floor 12 or other suitable supporting member having an aperture 13 through which the usual dumping action may take place. Any suitable dump pan mechanism, such as that disclosed in U. S. Letters Patent No. 1,948,101, issued Feb. 20, 1934, may be mounted in stand 11 and is adapted to be operated by a suitable linkage 14 which also controls a flush valve mechanism 15 of any desired construction. The flush valve mechanism 15 is mounted at the rear of the stand 11 and may be provided with a suitable drip pan 16 for collecting any condensate or the like which may accumulate therein. The flush valve mechanism 15 controls the flow of water to a flush pipe 17 which is provided with one or more downwardly and forwardly directed nozzles or outlet ports 18 (Fig. 2).

The upper end of the stand 11 comprises a bowl portion 19 which is preferably formed integrally therewith. The upper end of the bowl portion 19 is open, and at its lower end it terminates in a flared outlet 21.

A seat portion or receiving hopper 22 is provided which may be of any suitable shape and has a discharge opening 23 in the rear wall thereof which is of a height substantially equivalent to the width of the lower end of the outlet 21 (Fig. 2). The seat portion or hopper 22 has an arm or supporting bracket 24 formed integrally therewith or rigidly secured to each side thereof, which arms are pivotally mounted at 25 on stand 11 (Fig. 1). The seat portion 22 is therefore adapted to be moved relative to the stand or bowl portion 11 between its operative position of Fig. 1 and its inoperative position of Fig. 2. In the latter position, the rear edge 26 of the bottom of the seat portion 22, which is flared slightly downwardly or outwardly as shown in Fig. 2, rests against the forward wall of the outlet 21. In its lowered or operative position, the seat portion or receiving hopper 22 is adapted to rest within a cut away portion 27 at the front of the bowl portion 19 of the stand 11, with the bottom and side walls of the seat portion in close contact therewith. A stop 28 may be secured to or formed integral with the stand 11 on each side thereof in the path of the arms 24 to limit downward movement of the receiving hopper 22. If it is desired, the brackets 24 may be so formed and positioned as to aid in limiting the upward movement of the seat portion 22 by contacting the upper edges of the bowl portion 19.

It will be noted that the flush pipe 17 is rigidly mounted, so that the seat portion or receiving hopper 22 is movable relative thereto, but that it is adapted to flush the seat portion when the latter is in lowered or operative position. The rear nozzle or port 18 may be eliminated, if desired, or any other suitable types of outlets for the flush pipe 17 may be employed. It will also be understood that a supplemental, removable seat may be mounted upon the seat portion or receiving hopper 22 in well known manner.

The drawings clearly illustrate the compact

construction of the instant water closet and its primary characteristic of using a minimum amount of space. In Fig. 1 it will be seen that the water closet may be installed directly adjacent the rear wall 29 and within a suitable concealing closet, the front wall of which is indicated at 31. In Fig. 2, the compact arrangement of the instant water closet in conjunction with a wash bowl 32 of any suitable construction is shown. The wash bowl 32 may be rigidly mounted on the rear wall 29 directly above the closet and so spaced therefrom that the seat portion or receiving hopper 22 will be disposed beneath the wash bowl when it is in inoperative position. The advantages of this arrangement will be readily apparent for use in railway compartments or bedrooms, automobile trailers, or the like.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

1. A water closet, comprising a stand portion including a bowl, a receiving hopper pivotally mounted on said stand portion for movement between operative and inoperative positions, and flushing mechanism rigidly mounted upon said stand portion and adapted to flush the contents of said receiving hopper into said bowl when said hopper is in operative position.

2. A water closet, comprising a stand having dump pan mechanism mounted therein and a stationary bowl at the upper end thereof, said bowl having an outlet to said dump pan mechanism at its lower end and terminating in a curved opening at its upper end, a receiving hopper mounted for pivotal movement relative to said stand and said bowl between operative and inoperative positions and adapted to fit into the upper curved opening in said bowl when in operative position, said receiving hopper having a discharge aperture in the rear wall thereof, and flushing mechanism rigidly mounted on the said stand having discharge ports so positioned as to flush the contents of said receiving hopper through the rear aperture therein into said bowl when the hopper is in operative position.

3. A water closet, comprising a unitary stand portion open at both ends and having dump pan mechanism mounted in the lower end thereof, the upper end of said stand having a bowl formed integrally therewith and terminating at its forward end in a curved trough portion, a unitary seat and receiving hopper, means rigidly connected to said hopper and pivotally connected to said stand to mount the hopper for pivotal movement relative to the stand between operative and inoperative positions, said hopper being curved at its lower rear end to fit snugly into said trough portion when in operative position and to maintain contact therewith in its movements relative to said stand and having a discharge aperture in the rear wall thereof, and flushing mechanism mounted on said stand having discharge ports so positioned as to flush the contents of said hopper through the rear aperture therein into said bowl when the hopper is in operative position.

SVEN DUNER.