

[54] WASHING APPARATUS

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4/90

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4/167, DIG. 3, 168, 97, 7, 187, 188, 90

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[57] ABSTRACT

A washing apparatus which comprises a wash basin and seat washing basin combined to form a functional unit and having a single common battery of fittings for a feed of mixed water to be conducted optionally into the wash basin or into the seat washing basin which has a common wash-water discharge. A base under the wash basin supports the seat washing basin such that it can be swung out of a position of rest concealed in the base into a position of use and from there back into the position of rest. A hollow bottom part of the base is formed as a supporting arm in the form of a hollow molding which, in an axis of rotation of the seat washing basin, has a wash-water inlet which discharges into an adjoining water collecting space. A pump, and a pressure transmitter contained in the water collecting space for the connecting of the pump, the latter arranged in another adjoining pump space which is separated off by a partition having a passage, are provided.

4 Claims, 2 Drawing Figures

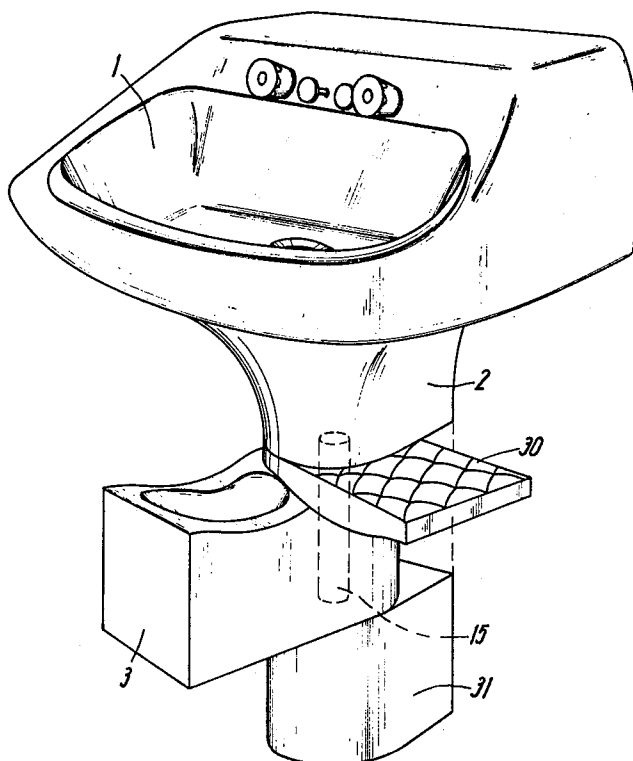


Fig. 1

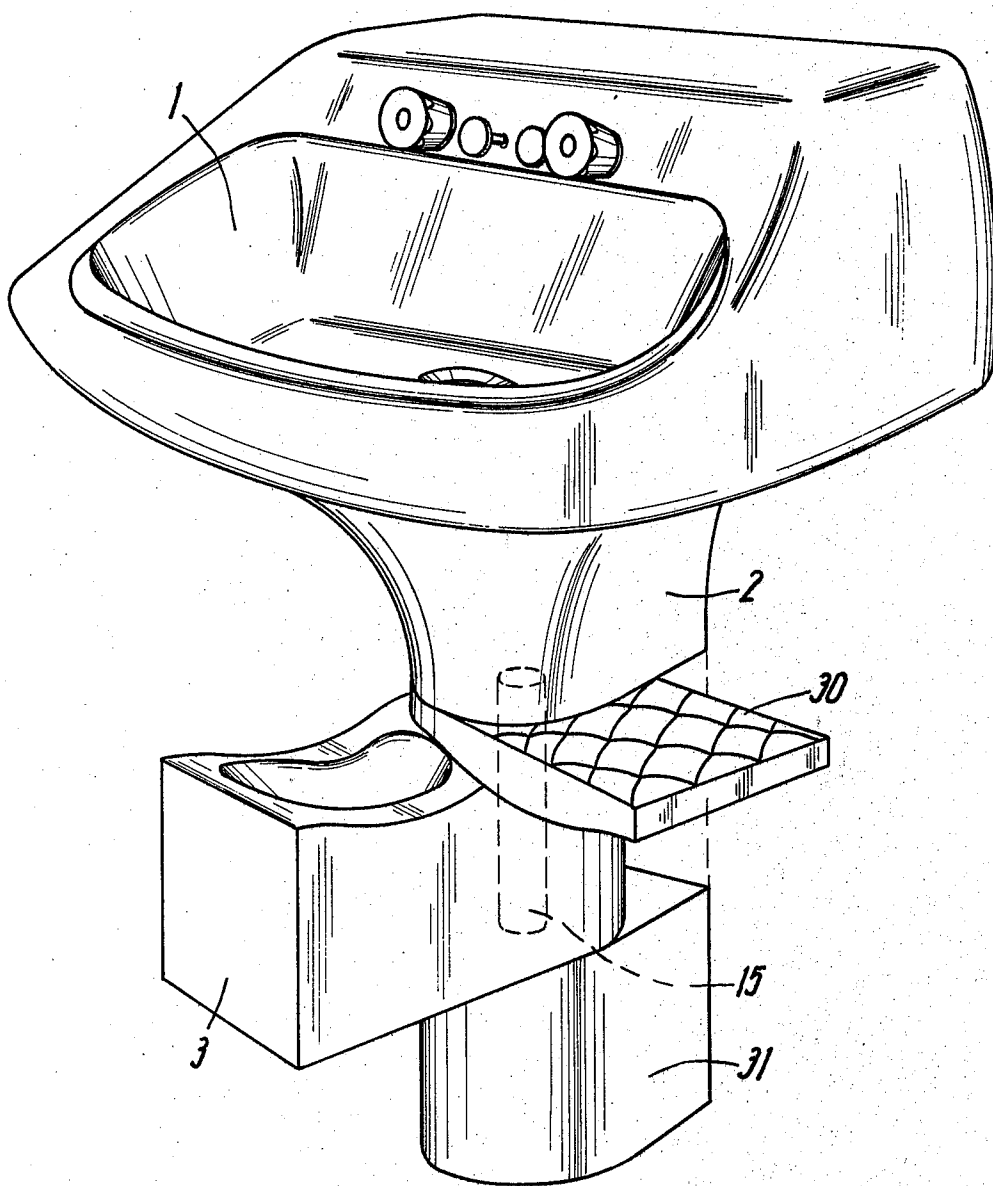
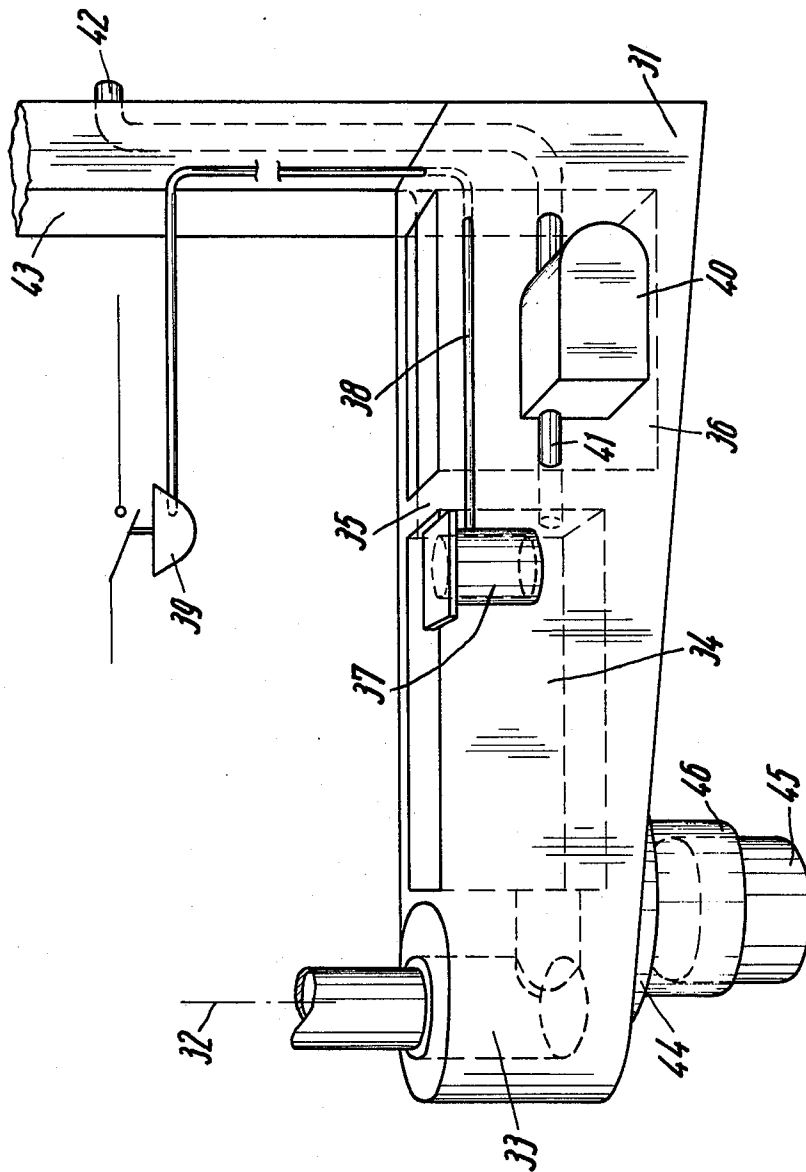


Fig. 2



WASHING APPARATUS

This patent invention relates to a washing device, and to my U.S. Pat. No. 3,789,436, which issued on Feb. 5, 1974, the disclosure of said patent being herein incorporated by reference.

My U.S. Pat. No. 3,789,436 relates to a washing apparatus consisting of a wash basin and bidet or seat washing basin, in which the wash basin and the seat washing basin are combined into a single functional unit with a single common battery of fittings for the feeding of mixed water to be conducted as desired into the wash basin or into the seat washing basin, and having a common water drain, within which apparatus the seat washing basin can be moved out of a position of rest into a position of use, and vice versa.

This washing apparatus has in the meantime proven its worth, particularly in the embodiment in which the functional unit is provided below a single-wash basin or double-wash basin with a base on which the seat washing basin can be swung from a completely concealed position of rest into the position of use and in which an additional, separately swingable cover is provided which can be used as seat or as shelf which, in the rest position, with the seat washing basin also swung away, perfectly fits in the shape of the base. The entire washing apparatus is made of polyurethane integral foam and can thus be produced very economically in large numbers.

The present invention is based on the recognition of this advantage and its object is to develop the washing apparatus of said patent also in those parts in which up to the present time inserts had to be provided, in such a manner that simple molding methods can be used, subsequent processing operations are unnecessary, and the expense for mounting is limited to the minimum.

This object is achieved with the apparatus in accordance with said patent, in which the seat washing basin is so supported in a base below the wash basin that it can be swung out of a position of rest concealed in the base into the position of use and from there back into the position of rest, in accordance with the present invention in the manner that the lower part of the base is developed as supporting arm in the form of a hollow casting which is provided in the axis of rotation of the bidet with a wash-water inlet which discharges into an adjoining water-collector space in which there is present a pressure transmitter for the connecting of a pump which is arranged in another adjoining pump space separated by a partition having a passage.

The pressure transmitter present in the water-collection space can be set to a predetermined pressure which is obtained upon the entrance of the wash water from the seat washing basin into the water-collecting space. This pressure is then transmitted to a pressure switch which places the pump contained in the adjoining pump space in operation, the pump discharging the wash water into the discharge line until the pressure drops and the pump is disconnected via the pressure transmitter and the pressure switch.

In order to support the entire washing apparatus and to provide for the leveling of it in case of an uneven floor, a socket with thread is provided on the front bottom side of the supporting arm for the provision of a vertically adjustable supporting pipe.

As a further development of the present invention, the entire hollow lower part of the base, and therefore

normally the supporting arm, together with the water-collection space, the pressure transmitter, the partition and the pump space with pump, can be formed directly as bottom part of the seat washing basin and be swingable together with the latter.

The particular advantages of developing the base bottom as supporting arm in accordance with the invention reside in particular in the fact that this part can now also be produced extremely economically in one piece as a plastic molding, that costly additional machining operations are substantially eliminated, that the cost of mounting is reduced to a minimum, and that all water-conducting spaces and lines are invisible from the outside and completely concealed within the washing apparatus.

With the above and other objects in view, which will become apparent in the following detailed description, the present invention, which is shown by example only, will be clearly understood in connection with the accompanying drawings in which:

FIG. 1 is an overall perspective view of the washing apparatus with swingable bidet and swingable cover; and

FIG. 2 is a perspective view of the bottom part of the base of FIG. 1 developed as a supporting arm.

Referring now to the drawings, the washing apparatus comprises the wash basin 1, the base 2 and the swingable seat washing basin 3 with separately swingable cover 30, all the parts forming a single coherent functional unit.

The bottom of the base 2 is developed as a supporting arm 31 having an axis of rotation 32 for the swingable bidet 3. In the axis of rotation 32 there is located the wash-water inlet 33 for the waste water from the seat washing basin, via which the waste water from the wash basin 1 can also be conducted through the drain line 15.

The entire supporting arm 31 is developed as a hollow, single-piece molding, preferably of polyurethane integral foam. The wash-water inlet 33 discharges into an adjoining water-collection space 34 which is limited at the rear by the partition 35 adjoining which the pump space 36 is located. The pressure transmitters 37 are provided in the water-collecting space 34, fastened to the cover and developed as cylindrical hollow bodies, the pressure transmitter 37 with its feedline 38 leading to the pressure switch 39 which is located in the dry space below the wash basin 1. In the pump space 36 there is arranged the pump 40 which, via its intake pipe 41 which passes through the partition 35, is connected with the water-collecting space 34, the pump discharging the wash water through the discharge line 42.

As soon as waste water passes from the seat washing basin 3 or the wash basin 1, or both, through the wash-water inlet 33 into the water-collecting space 34 which is closed on top, the inner pressure increases therein as well as in the pressure transmitter 37 and in the feedline 38. When a predetermined pressure is reached, the pressure switch 39 thereupon connects the pump 40 which discharges the waste water which continues to flow into the water-collecting space 34 out through the suction pipe 41 and the discharge line 42. The pump 40 is disconnected only when the increased internal pressure in the water-collecting space 34 drops again, and therefore upon the termination of the feeding of waste water. A residual water level in the water-collecting

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space 34 assures a sealing off of odors with respect to the discharge line 42.

The discharge line 42 and the feedline 38 to the pressure switch 39 are completely concealed in their ascending part outside the supporting arm 31 by the covering 43.

On the front bottom side of the supporting arm 31 there is arranged the socket 44 for the vertically adjustable supporting pipe 45, which, via the thread 46, serves to support the washing apparatus and to compensate for irregularities in the floor.

While I have disclosed one embodiment of the present invention, it is to be understood that this embodiment is given by example only, and not in a limiting sense.

I claim:

1. A washing apparatus comprising

a wash basin and seat washing basin combined to form a functional unit and having a single common battery of fittings for a feed of mixed water to be conducted optionally into said wash basin or into the said seat washing basin and with a common wash-water discharge,

a base under said wash basin supporting said seat washing basin such that it can be swung out of a position of rest concealed in said base into a position of use and from there back into said position of rest,

a hollow bottom part of said base being formed as a supporting arm in the form of a hollow molding which, in an axis of rotation of said seat washing

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basin, has a wash-water inlet which discharges into an adjoining water-collecting space,

a pump,

a pressure transmitter contained in said water collecting space for the connecting of said pump, the latter being arranged in another adjoining pump space which is separated off by a partition having a passage.

2. The washing apparatus, as set forth in claim 1, further comprising

a pressure switch,

said pump is controlled by the pressure which changes in said pressure transmitter when water is fed in said pump space by means of said pressure switch.

3. The washing apparatus as set forth in claim 1, further comprising

a vertically adjusting supporting pipe,

a socket means disposed on a front bottom part of said supporting arm and for arranging of said vertically adjustable supporting pipe.

4. The washing apparatus, as set forth in claim 2, wherein

the entire hollow bottom part of said base together with said water-collecting space, said pressure transmitter, said partition and said pump space with said pump are formed directly as a bottom part on said seat washing basin is swingable together with the latter.

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