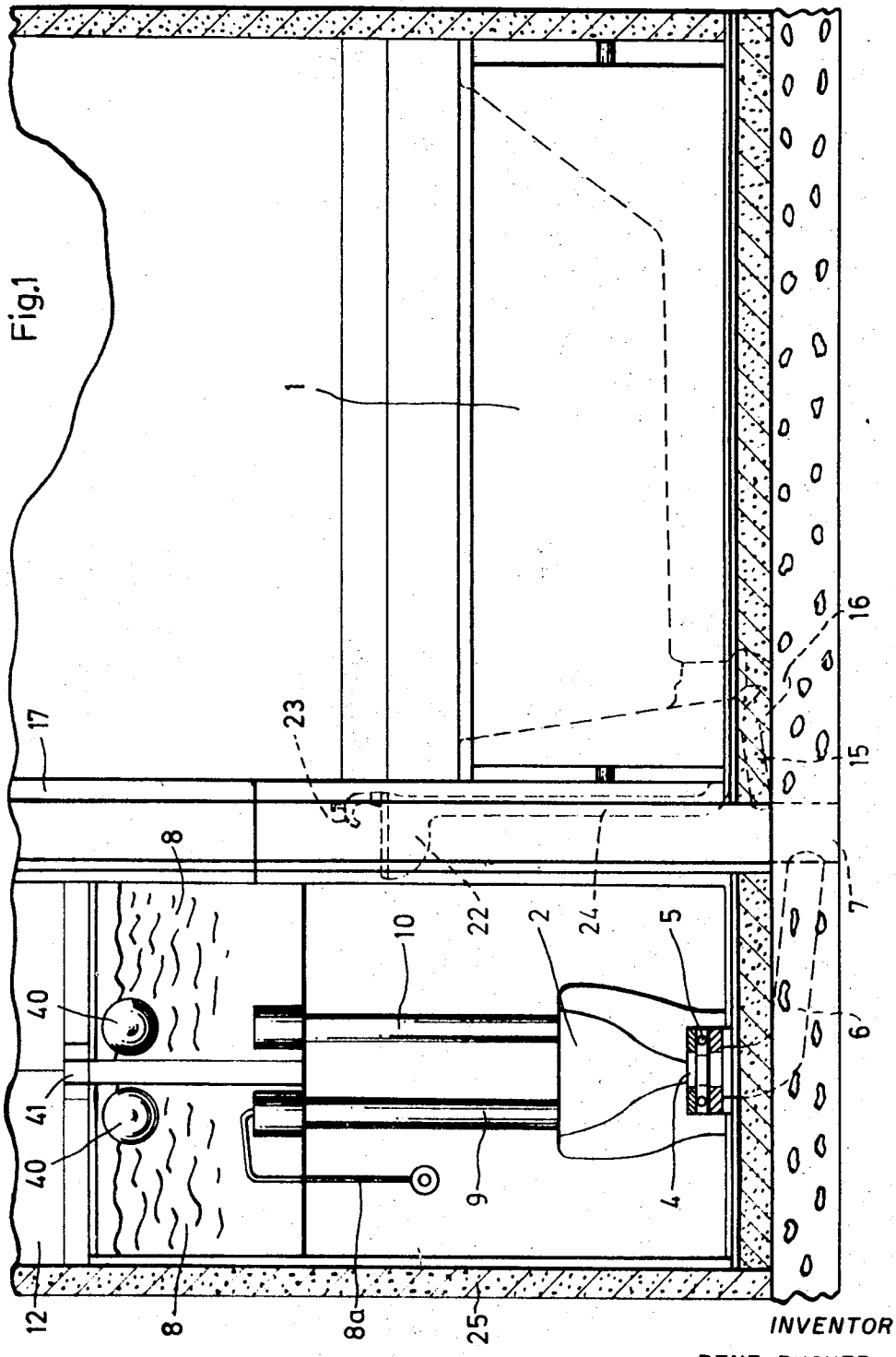
Sept. 21, 1971 R. BUCHER 3,606,616

PREFABRICATED SANITARY UNIT

Filed April 8, 1970 3 Sheets-Sheet 1

Fig.1



INVENTOR

RENE BUCHER

PREFABRICATED SANITARY UNIT

Filed April 8, 1970 3 Sheets-Sheet 2

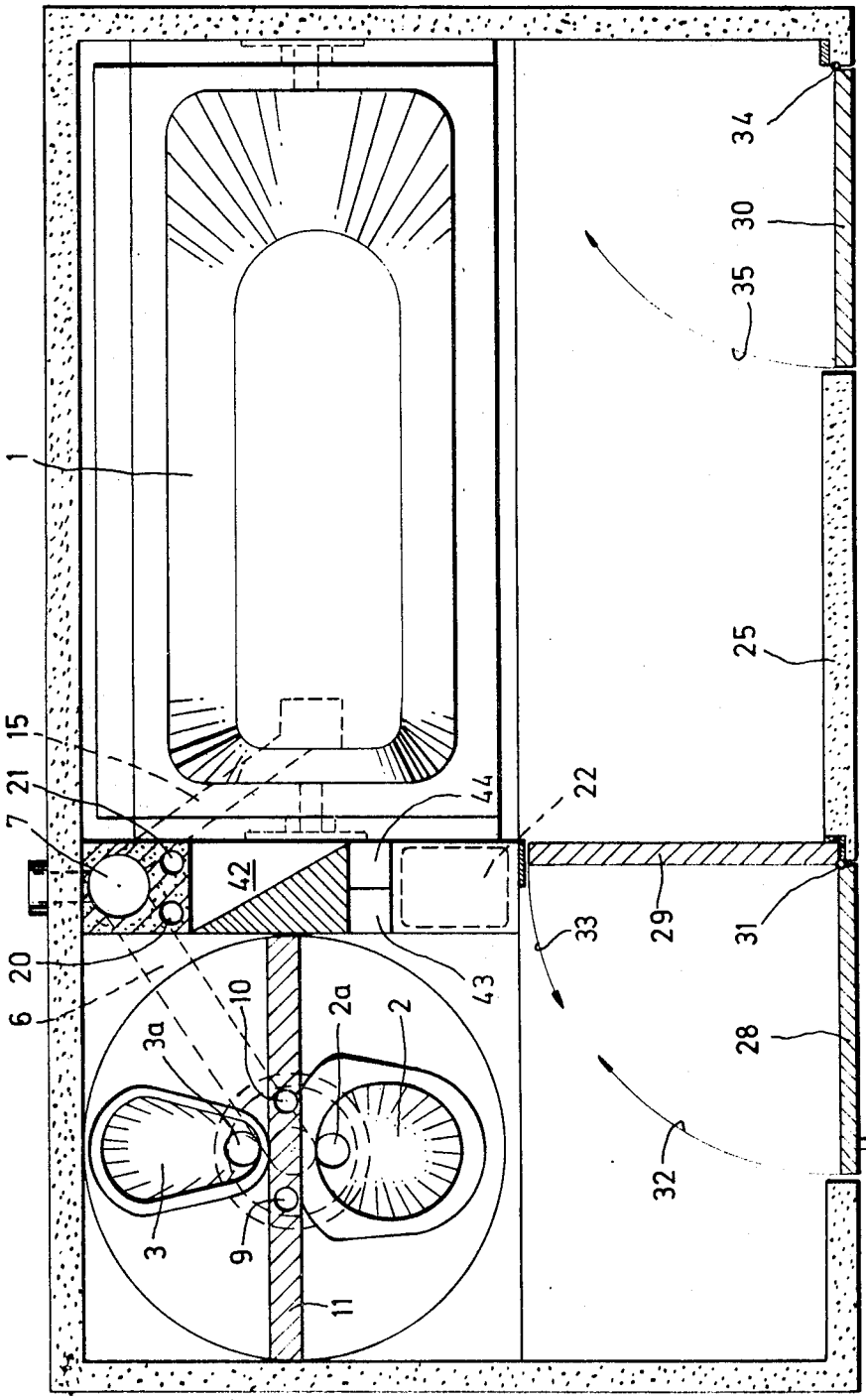


Fig.2

INVENTOR
RENE BUCHER

Sept. 21, 1971 R. BUCHER 3,606,616

PREFABRICATED SANITARY UNIT

Filed April 8, 1970 3 Sheets-Sheet 3

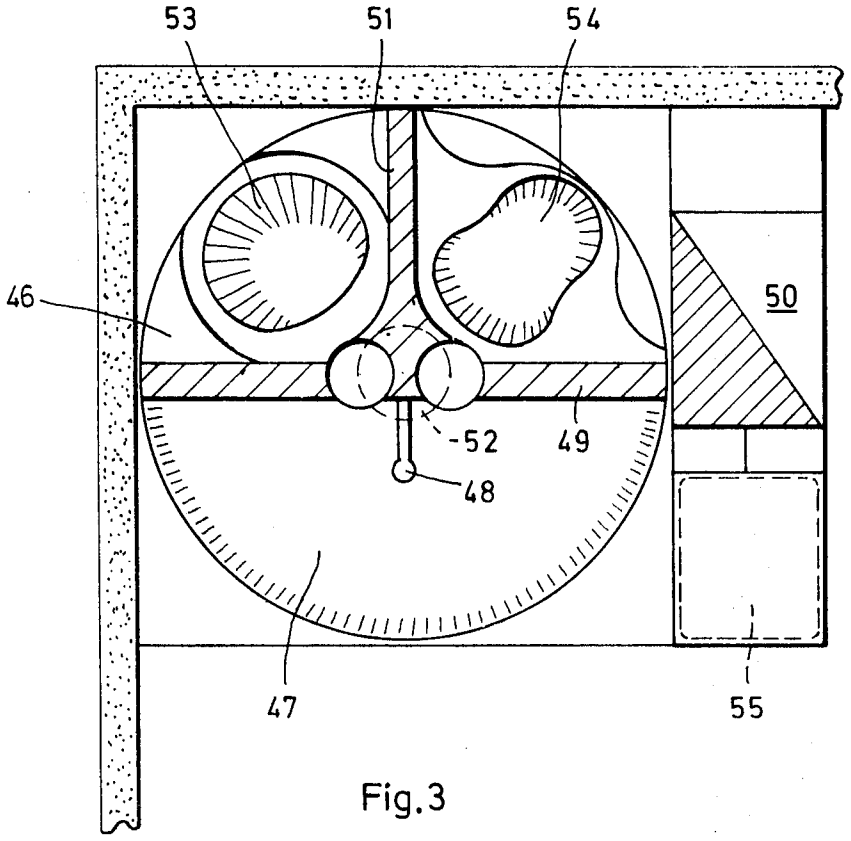


Fig. 3

INVENTOR:
RENE BUCHER
By: Werner H. Kleeman
ATTORNEY

United States Patent Office 3,606,616
Patented Sept. 21, 1971

3,606,616

PREFABRICATED SANITARY UNIT

Rene Bucher, Stockackerstrasse 17,
Reinach, Switzerland

Filed Apr. 8, 1970, Ser. No. 26,679
Claims priority, application Switzerland, Apr. 15, 1969, 5,657/69
Int. Cl. A47k 4/00
U.S. Cl. 4—2 9 Claims

ABSTRACT OF THE DISCLOSURE

A prefabricated sanitary unit is based on a main structural member in the form of a rotatable platform. At least one vertical partition on the platform spatially separates a plurality of compartments, and a sanitary fitting is installed in each compartment. The sanitary fittings are plumbed into a common discharge pipe which is coaxial with the axis of rotation of the platform. On rotation of the platform each sanitary fitting is in turn brought to a common position permitting access to the fitting for use. Arrangements are made to supply water to the fittings as necessary. The fittings are preferably a water closet and a bidet, and a shower and wash basin may also be provided.

BACKGROUND OF THE INVENTION

This invention relates to a prefabricated sanitary unit comprising a plurality of sanitary fittings.

In many cases when modern dwellings are planned, only a relatively small amount of space is available for bathrooms, in which space only a few sanitary fittings can be accommodated. On the other hand, there is growing need for better equipped bathrooms which, apart from containing a bath, a water closet and a wash basin, also contain for example a shower and a bidet for which there is, however, usually not sufficient space. The ever-increasing production of prefabricated houses, and the extensive modernisation of existing dwellings and hotels has set up a demand for prefabricated sanitary units and particularly bathrooms which can, if required, be built into the dwellings or hotel rooms at a later stage either as finished units or in separate parts.

It has been previously proposed to make use of a certain amount of prefabrication in constructing sanitary units. For example, French patent specification No. 1,389,550 proposes to install a sanitary fitting so that it can be swung about a column and under a wash basin. German Patent No. 1,007,006 proposes to accommodate two sanitary fittings in a recess. One of the fittings, namely a W.C. pan, is swung out for use by opening one half of the door, whilst the second fitting, a wash basin is secured to the second half of the door and can be swung out for use independently of the W.C. pan. The main aim of these prior proposals is to accommodate a number of sanitary fittings in such a manner that when they are not required for use they are stacked one above the other, and can each be swung out into a position in which they are used.

It is an object of the invention to provide a prefabricated sanitary unit comprising a plurality of sanitary fittings.

It is a further object of the invention to provide a prefabricated sanitary unit comprising a plurality of sanitary fittings in which the arrangement and disposition of the fittings is such as to render each fitting readily accessible for use when required.

It is a still further object of the invention to provide a prefabricated sanitary unit which accommodates, in a space-saving manner, the largest possible number of individual sanitary fittings.

Yet another object of the invention is to provide a

sanitary unit comprising a plurality of sanitary fittings, which can be prefabricated in the factory and readily installed on site.

Still another object of the present invention is to provide a prefabricated sanitary unit comprising a plurality of sanitary fittings, in which the individual fittings are not arranged in a stack one above the other and have each to be brought into position for use, when required, by swinging the fittings individually, but is each installed in an individual compartment.

SUMMARY OF THE INVENTION

The invention provides a prefabricated sanitary unit comprising at least two sanitary fittings, structural means carrying said fitting, said fittings being plumbed into said structural means, means mounting said structural means for rotation about a substantially vertical axis such that said fittings participate in the rotation about said axis, and at least one partition included in said structural means to partition said sanitary fittings from each other whereby on rotation of said structural means each said sanitary fitting is brought in turn into a common position permitting access to the fitting for use.

An important advantage of the invention is seen in that each sanitary fitting is partitioned off from the others and is thus presented in a substantially enclosed compartment adapted for the particular purpose, which compartment can be brought as a whole into the position for use, whilst the compartment which was previously in that position disappears into an inaccessible position. Preferably, the prefabricated sanitary unit is constructed on the basis of a rotatable platform, and partitions are structurally connected to the platform to define and separate the compartments for the individual sanitary fittings, and partitions thus rotating with the platform.

A further feature of the invention provides for the sanitary fittings each to be plumbed to a common discharge pipe which rotates with the platform about the substantially vertical axis.

There is considerable choice in selecting the sanitary fittings which are to be provided in the unit.

Preferably, however, it is thought convenient to provide a water closet and a bidet. Additional fittings, such as a shower and/or a wash basin, may be added as desired.

The partitions which are provided to separate the sanitary fittings from each other are preferably made sufficiently high that the compartments are completely separate from each other spatially.

By way of example, the accompanying drawings illustrate, in schematic form, two preferred embodiments of the invention.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a side elevational view, partly in section, of a prefabricated sanitary unit in accordance with the invention installed in a bathroom;

FIG. 2 is a plan view of the prefabricated sanitary unit and bathroom illustrated in FIG. 1; and

FIG. 3 is a plan view of another embodiment of prefabricated sanitary unit according to the invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

FIGS. 1 and 2 illustrate a prefabricated sanitary unit in accordance with one embodiment of this invention after the installation of the unit in a bathroom containing a bath **1** which forms no part of the subject matter of the invention. The sanitary fittings incorporated in this embodiment include a water closet (W.C.) pan **2** and a bidet **3**. The W.C. pan **2** and the bidet **3** are mounted on a rotatable platform which constitutes a principal structural member of the prefabricated sanitary unit. The rotatable

platform is supported on a suitable bearing means, for example a ball bearing unit **5**, for rotation about a vertical axis. As will be appreciated, on rotation thereof the platform carries the W.C. pan **2** and bidet **3** round with it. The W.C. pan **2** and bidet **3** are plumbed to a common discharge pipe **4** which is coaxial with and rotatable on the vertical axis of rotation of the platform. The discharge pipe **4** is connected to a vertical drainage pipe **7** by means of a stationary elbow **6**. The W.C. pan **2** and the bidet **3** are separated from each other by a vertical partition **11** which is structurally connected to the rotatable platform. The partition **11** is high enough to completely separate the W.C. pan **2** and bidet **3** spatially from each other, each being provided in a substantially spatially separate individual compartment.

Two water cisterns **8** are mounted on the partition **11**, one for the bidet **3** and one for the W.C. pan **2**. A flushing lever **8***a* is provided and each cistern contains a float **40** to control filling of the cisterns with water which is supplied from a cold water pipe **21** through a water inlet **41** coaxial with the axis of rotation of the rotatable platform. One of the cisterns **8** is connected through a pipe **9** to a W.C. pan **2**, and the other is connected through a pipe **10** to the bidet **3**. A discharge opening in the W.C. pan **2** is indicated in FIG. 2 by the reference **2***a*, and that in bidet **3** by the reference **3***a*. To make good use of the space available, a wall cistern **12** is fitted above the unit.

The bathroom in which the prefabricated sanitary unit of this embodiment of this invention is installed has a wall **25**. The room is divided by a door **29** and also has two other doors **28** and **30** leading to the outside. The doors **28** and **29** are both hinged at **31** and can be swung in the directions of the arrows **32** and **33** respectively, whilst the door **30** is hinged at **34** and can be swung open in the direction of the arrow **35**.

FIGS. 1 and 2 show the prefabricated sanitary unit with the W.C. pan **2** in the position in which access to the pan **2** can be had from the bathroom to use the pan. By turning the rotatable platform through 180° the bidet **3** is brought into the position occupied by the W.C. pan **2** in FIGS. 1 and 2 so that access can be had to the bidet **3** for use. Since the W.C. pan **2** and the bidet **3** cannot be used at the same time, the arrangement of these two sanitary fittings on the prefabricated sanitary unit according to he present invention effects a saving of approximately one half of the space normally required for installing these two sanitary fittings. The unit can be equipped with a motor and suitable control means not illustrated, for rotating the rotatable platform as required so as to bring the bidet **3** or the W.C. pan **2** into position for use. The bidet and the W.C. pan can, of course, be arranged on the rotatable platform in such a way that these fittings are accessible by rotating the platform through angles of less than 180°.

The bath **1** is separated from the prefabricated sanitary unit by a partition wall **17** which preferably forms part of the unit. The bathroom is ventilated through a duct **42** connected to two suction ports **43** and **44**. The bath **1** is itself connected to the drainage pipe **7** by way of a U-trap **16** and a pipe **15**. A wash basin **22**, fitted with taps one of which is shown at **23**, and a drain pipe **24**, can also be incorporated in the unit. The taps will be supplied from the cold water pipe **21** and a hot water pipe **20** both of which pipes are connected to the plumbing system of the building.

Instead of providing basically for a combination of two sanitary fittings, such as the bidet and W.C. pan as shown in FIGS. 1 and 2, the prefabricated sanitary unit of this invention may include additional sanitary fittings.

An embodiment which comprises three sanitary fittings namely a W.C. pan **53**, a bidet **54** and a shower **48** is shown in FIG. 3. The rotatable platform in this embodiment has a vertical partition **49** which separates two compartments **46** and **47**. The W.C. pan **53** and the bidet **54** are contained in one compartment **46** and are separated from each other by a further partition **51** which subdivides this compartment into two. In the other compartment **47** is the shower **48**. A common discharge pipe for the fittings is shown at **52**. Hot and cold water for the fittings are supplied through two down-pipes (not shown in the drawing) which are disposed concentrically and coaxially with the axis of rotation. The sanitary unit illustrated in FIG. 3 also comprises a ventilating duct **50** and a wash basin **55**. In the position shown, the shower **48** is accessible. When the platform is rotated through 135° in the clockwise direction, the bidet **54** becomes accessible, and further rotation of 90° makes the W.C. pan **53** accessible. It is, of course, also possible to use any other combination of sanitary fittings and to arrange these fittings in any other relative angular displacement, for example, at a displacement of 120°. In this embodiment a motor can also be used for turning the rotatable platform.

Furthermore, it will be understood that instead of providing two or three sanitary fittings as in the embodiment particularly described, four or more fittings can be provided as required. It will thus be appreciated that the description of the preferred embodiments is given for purposes of illustration only, and that the invention can be embodied in other forms within the spirit and scope of the amended claims.

I claim:

1. A prefabricated sanitary unit comprising at least two sanitary fittings, structural means carrying said fittings, said fittings being plumbed into said structural means, means mounting said structural means for rotation about a substantially vertical axis such that said fittings participate in the rotation about said axis, and at least one partition included in said structural means to partition said sanitary fittings from each other whereby on rotation of said structural means each said sanitary fitting is brought in turn into a common position permitting access to the fitting for use.

2. A prefabricated sanitary unit as claimed in claim **1**, comprising a common discharge pipe to which said sanitary fittings are plumbed, and wherein said pipe rotates with said structural means about said substantially vertical axis.

3. A prefabricated sanitary unit as claimed in claim **1**, wherein said at least two sanitary fittings comprise a water closet and a bidet.

4. A prefabricated sanitary unit as claimed in claim **3**, wherein said unit further comprises a shower.

5. A prefabricated sanitary unit as claimed in claim **3**, wherein said unit further comprises a wash basin.

6. A prefabricated sanitary unit as claimed in claim **1**, wherein said at least one partition is of a height to completely separate said sanitary fittings from each other spatially.

7. A prefabricated sanitary unit as claimed in claim **1**, wherein said structural means comprises a rotatable platform.

8. A prefabricated sanitary unit as claimed in claim **3**, further comprising flushing cistern means for said water closet and bidet.

9. A prefabricated sanitary unit as claimed in claim **1**, further comprising ventilation duct means.

References Cited

UNITED STATES PATENTS

2,396,992	3/1946	Evans	4—2
3,458,871	8/1969	Valcervo	4—3

ROBERT G. NILSON, Primary Examiner

U.S. Cl. X.R.

4—6