Jan. 29, 1952 D. W. WALLS 2,583,718

COLOSTOMY APPLIANCE

Filed March 3, 1950 2 SHEETS—SHEET 1

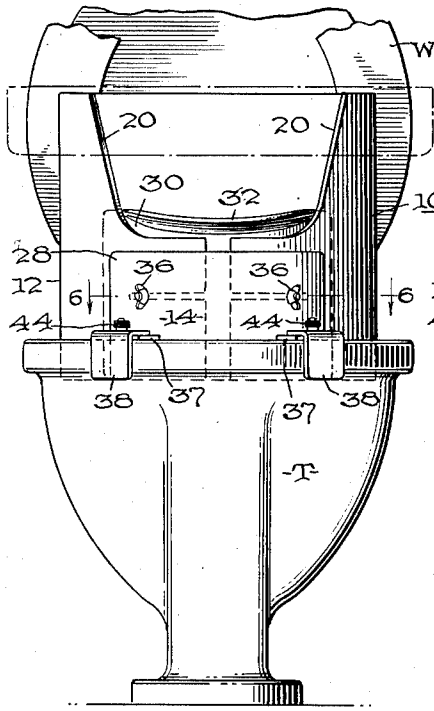


Fig. 1.

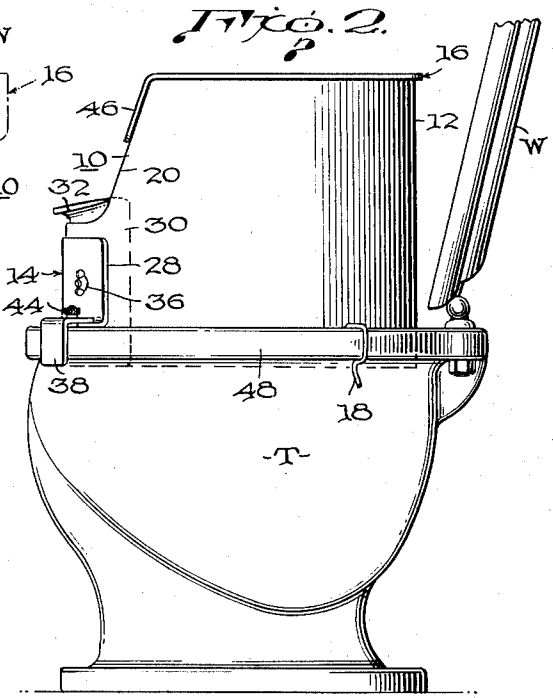


Fig. 2.

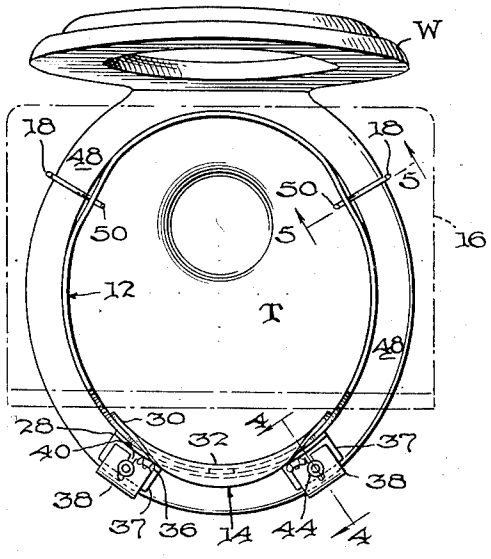


Fig. 3.

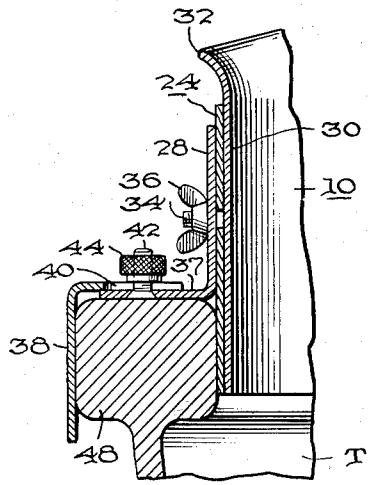


Fig. 4.

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Fig. 5.

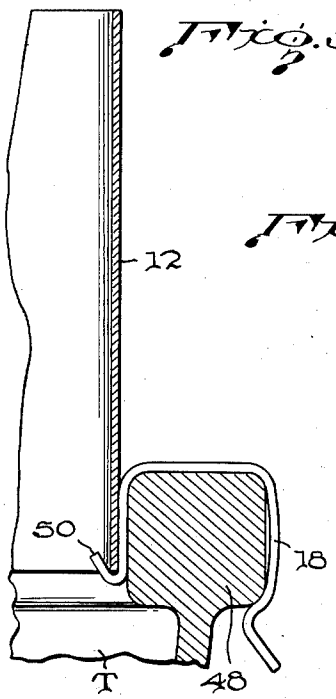


Fig. 7.

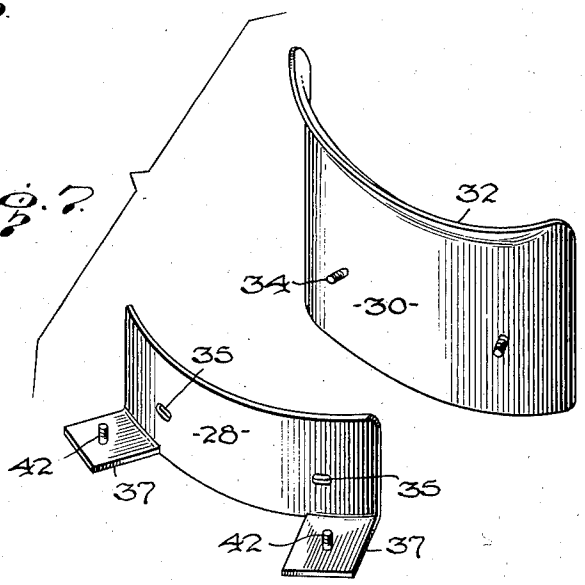
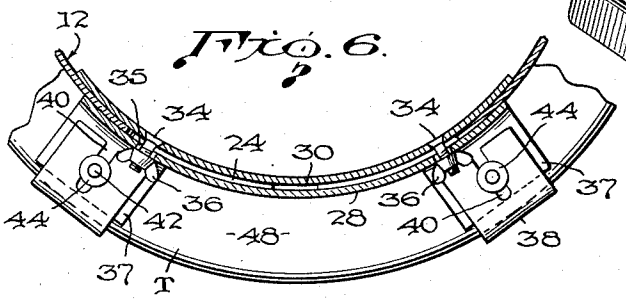


Fig. 6.



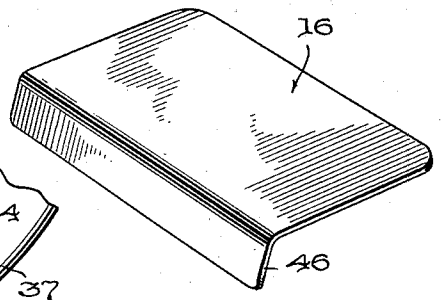


Fig. 8.

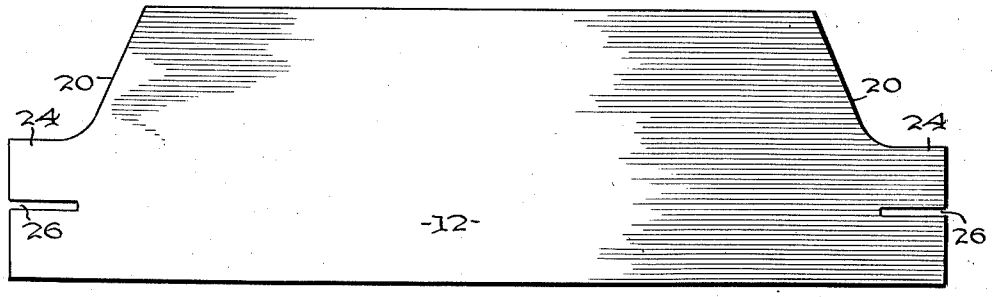


Fig. 9.

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UNITED STATES PATENT OFFICE

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COLOSTOMY APPLIANCE

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12 Claims. (Cl. 4—1)

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This invention relates to colostomy appliances and more particularly to a colostomy irrigation shield.

Colostomy operations are performed to provide a fecal fistula affording means of artificial communication between the colon or large intestine and the exterior of the body through which the current of fecal matter may be discharged outwardly into space, instead of being permitted to follow its normal course downwardly through the lower portion of the bowel. Such fecal fistulas are usually formed by making an opening or incision in the abdominal wall, preferably in the left inguinal region. In such cases the person loses all control of his bowel action, and more or less seepage is likely to occur.

Recent medical practice, therefore, has been to recommend daily irrigation of the bowel by a douche or enema through the artificial anus thus formed. Upon removal of the enema or douche tube from the person lacking bowel control, the water and feces may be expelled under pressure with considerable velocity in an indirect stream, with more or less undesirable results.

To provide directive control of such discharge is the principal purpose of the instant invention.

A general object of the invention, therefore, is to improve the construction and operation of such colostomy appliances, whereby they may not only be economically manufactured, but will be efficient in use, sanitary, and comfortable.

A further object of the invention is to provide a colostomy shield which will facilitate control and disposal of the discharged matter, which may be placed in a china toilet bowl, and which is readily adjustable to fit any type or size of water closet bowl.

A still further object of the invention is to provide a colostomy shield so shaped that it will conform to the contours of the human body thus adding materially to one's comfort when in use.

Another object of the invention is to provide a flexible colostomy device of the character described that is of a knockdown nature and comprised of relatively few parts so that it may be easily disassembled, cleaned, and stored in a very small space.

A salient feature of the invention is to provide a colostomy shield that is adapted to be used in a china toilet bowl by raising the wooden seat and fitting the flexible shield within the bowl so that a person may sit directly in front of the toilet on a comfortable stool of appropriate height with his abdomen pressed against the contoured shield, with nothing attached to the body,

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thus aiding in the ease, comfort and freedom in performing the required operation of bowel irrigation.

Another important object of the invention is to provide a colostomy shield having a hood or cover which may serve as a writing table or utility desk top for reading or other useful pastimes for the thirty to forty-five minutes it may be necessary to sit before the shield.

Other novel features of improvement contributing to ease and efficiency of manufacture and use of the colostomy shield will be apparent and readily understood from the following detailed description of the preferred embodiment of the invention when taken in connection with the accompanying drawings, in which

Fig. 1 is a front elevation in perspective showing the colostomy shield disposed within the rim of a standard type of toilet bowl;

Fig. 2 is a side elevation similar to Fig. 1 and showing the hood or cover in position on the shield;

Fig. 3 is a top plan view illustrating quite clearly the supporting and retaining elements for the shield;

Fig. 4 is an enlarged section taken on the line 4—4 of Fig. 3 and showing details of one of the forward supporting elements;

Fig. 5 is another enlarged section taken on the line 5—5 of Fig. 3 and showing details of one of the rear supporting clips;

Fig. 6 is a section taken on the line 6—6 of Fig. 1 and showing further details of the adjustable supporting and retaining elements for the flexible shield;

Fig. 7. is an exploded perspective view of the principal parts of the supporting and retaining elements;

Fig. 8 is a perspective view to reduced scale of the hood or cover; and

Fig. 9 is a view showing in detail the flat flexible sheet adapted to provide the shield.

Referring to the drawings in detail, the numeral 10 generally indicates the improved colostomy appliance, which fits within a closet bowl T and includes broadly a flexible shield number 12, a clamping and attaching holder 14, a hood or cover 16, and rear supporting clips 18.

The shield member 12 shown in an opened or flat position in Fig. 9 is formed of generally rectangular shape from a sheet of flexible material. While any sufficiently stiff material of a flexible nature may be used, such, for example, as thin sheet metal, water-proofed fiber board, rubber, etc., in the preferred embodiment the sheet 12

is made from a commercial flexible plastic, such ror example as one of the ethyl celluloses. The member 12 is cut out or otherwise shaped at 20 to provide reduced projections 24 at either end of the lower edge portion. The end projections 24 are provided with longitudinal slots 26, the purposes of which will become apparent from the further description hereinafter more fully set forth.

The clamping and attaching holder 14 comprises two spaced plates 28 and 30 preferably of metal. As clearly shown in Figs. 3 and 6, the metal plates 28 and 30 are similarly curved slightly in a lengthwise direction to fit the contour of the front portion of a toilet bowl T. The plate 30 has a smoothly curved, downwardly and outwardly projecting upper lip 32 which extends over projections 24 and provides a resting or supporting surface for the abdomen. Two projecting threaded pins 34 are integrally secured to the outer or front wall of the plate 30 and are adapted to project through complementary slotted holes 35 formed in the plate 28. It will thus be seen that the plates 28 and 30 may be clamped together and secured by means of wing nuts 36 threaded onto pins 34.

As more clearly shown in Figs. 4 and 6, the slotted end projections 24 of the shield member 12 fit between the two metal plates 28 and 30 with the pins 34 received in the slots 26. In this manner, the circumference of the shield member 12 may be adjusted by loosening the wing nuts 36 and sliding the end projections 24 until the desired approximately circular size has been obtained. The wing nuts are then tightened and the end projections 24 are firmly clamped between the two metal plates 28 and 30. The plate 28 is also provided with two outwardly and forwardly projecting members 37, on each of which an angularly shaped leg 38 is mounted and adjustably secured. To provide adjustment each of the legs 38 has a slotted portion 40 which slides over an upstanding threaded stud 42 on the respective member 37. Knurled nuts 44 are engaged on the threaded studs 42 and will serve when tightened to hold the legs 38 firmly in place.

As shown in Fig. 2 the removable cover 16 is adapted to be placed on the top surface of the shield 12. In order to prevent the cover 16 from sliding or slipping when in use it is provided with a downwardly projecting portion 46, the angle of which corresponds to the angle of the cutout portions 20.

The rear supporting clips 18 fit over the rim 48 of the closet bowl, as shown best in Fig. 5, and are formed with hooked inner ends 50 which receive the lower rim of the flexible shield member 12 and give added support to the appliance when needed.

In setting up the colostomy appliance the end projections 24 of the sheet member 12 are slid between the plates 28 and 30 with the pins 34 fitting in the slots 26. The hinged seat W of the toilet is then raised and the shield member 12 is adjusted until it can be placed inside the rim of the bowl. The shield member 12 should be made to fit the contour of the bowl rim quite snugly, after which the wing nuts 36 are tightened. The legs 38 are then adjusted to firmly grip the front portion of the rim 48 and the spring clips 18 are fitted in place on the rear portion if needed. The knurled nuts 44 are tightened against the horizontal parts of the legs 38 and the shield is ready for its intended use.

In use the person sits directly in front of the shield on a stool of appropriate height with his abdomen resting comfortably against the smoothly contoured lip 32 and over the notched opening formed therewith by the cutout portions 20. In this manner, the patient's hands are left free and unencumbered. Elimination is made away from the body out of sight and the toilet may be flushed at will to carry away the first gushes of irrigation.

The shield may easily be cleaned after use by simply rinsing it with water or spraying it with a bath hose.

The hood or cover 16, formed of semi-opaque plastic or metal, may or may not be used as desired. However, as previously stated, the use of the hood as a table, desk or axuiliary support serves to divert attention from the task at hand and toward things of a more pleasant nature.

After the operation has been completed the shield is easily removed from the bowl by merely loosening the nuts 44 and sliding the legs 38 outwardly.

The device may be stored in a very small space or packed in regular luggage by loosening the wing nuts 36, sliding the projections 24 from between the plates 28 and 30 and rolling the flexible shield member 12 into a small cylindrical package.

From the above description, it will be seen that there has been provided a colostomy appliance of the character described possessing the particular features and advantage before enumerated as desirable, but which obviously is susceptible to modifications in its form, proportions, details of construction and arrangement of parts without departing from the spirit or scope of the appended claims.

Having thus described my invention, what I claim as novel and desire to secure by Letters Patent of the United States is:

1. In a colostomy toilet shield, an approximately rectangular flexible member adapted to fit within the rim of a toilet bowl; curved clamping plates adjustably engaging opposite faces of the end portions of said member for varying the size of said shield; and means carried by the outer plate at points spaced lengthwise for supporting said member firmly on the rim of said toilet bowl.

2. A colostomy shield comprising an elongated flexible sheet member having a lower edge portion adapted to fit within the rim of a toilet bowl or the like; curved clamping devices engaging opposite faces of each of the end portions of said sheet member for varying the size of said shield; and a plurality of means extending on the outside of said shield and operatively associated with said sheet member at lengthwise spaced points for supporting said shield on a toilet bowl or the like.

3. A colostomy shield comprising an elongated flexible sheet member having a lower edge portion adapted to fit within the rim of a toilet bowl or the like; adjustable clamping means including a curved plate engaging the inner face of each of the end portions of said sheet member for varying the size of said shield; and a plurality of means extending on the outside of said shield and operatively associated with said sheet member at lengthwise spaced points for supporting said shield on a toilet bowl or the like.

4. A colostomy toilet shield comprising an

elongated approximately rectangular member of flexible sheet material, said member having identical cutout portions at each end forming reduced end projections; means including a curved clamping plate for detachably securing said end projections together in such a manner as to form an approximately cylindrical shield adapted to fit within the rim of a toilet bowl and having a downwardly extending notched opening for receiving the abdominal portion of a user, the upper edge of said clamping plate being formed as a curved lip adapted to extend over said end projections; and a plurality of extending means on the outside of the lower portion of the shield for supporting said shield firmly on the said rim.

5. The combination of claim 4 including a flat cover member resting on the upper edge of the flexible sheet and having a downwardly projecting portion engaging the upper parts only of the side edges of the flexible sheet defining the cutout portions.

6. A colostomy toilet shield comprising an elongated approximately rectangular member of flexible sheet material, said member having identical cutout portions at each end forming reduced end projections; means for adjustably securing said end projections together in such a manner as to form an approximately cylindrical shield adapted to fit within the rim of a toilet bowl and having a downwardly extending notched opening for receiving the abdominal portion of a user; and a plurality of outwardly extending means carried by said securing means for supporting said shield firmly on the said rim.

7. A colostomy toilet shield comprising an elongated approximately rectangular member of plastic sheet material, said member having identical cutout portions at each end forming reduced end projections, each of said end projections having a longitudinal slot formed therein; fastening and securing means adapted to slidably receive said end projections including two spaced parallel curved plates on opposite faces of the end projections; and outwardly extending means on the outer of said plates for supporting said shield on the rim of a toilet bowl.

8. A colostomy toilet shield comprising an elongated approximately rectangular flexible sheet, said sheet having similar cutout portions at the upper end corners defining reduced end projections, each of said end projections having a longitudinal slot formed therein; a clamping and attaching holder, said holder including two spaced parallel curved plates adapted to slidably receive said end projections therebetween; means to clamp said plates together; and outwardly projecting legs integral with the outer of said plates and formed and arranged to support said shield at spaced points on the rim of a toilet bowl.

9. A colostomy toilet shield comprising an elongated approximately rectangular flexible sheet, said sheet having similar cutout portions at the upper end corners defining reduced end projections, each of said end projections having a longitudinal slot formed therein; a clamping and attaching holder, said holder including two spaced parallel curved plates adapted to slidably receive said end projections therebetween; means to clamp said plates together; outwardly projecting legs integral with the outer of said plates and formed and arranged to support said shield at spaced points on the rim of a toilet bowl; and a flat cover member resting on the upper edge of the flexible sheet and having a downwardly projecting portion engaging the upper parts only of the side edges of the flexible sheet defining the cutout portions.

10. A colostomy irrigation shield comprising an elongated approximately rectangular plastic member, said plastic member being formed with a reduced projection at the lower corner of each end and each of said end projections having a longitudinal slot formed therein; inner and outer clamping plates having similar lengthwise curvatures receiving said end projections therebetween, said inner plate having integral screw means projecting outwardly therefrom and through the slots of said end projections, and said outer plate having apertures therein receiving said screw means; nuts threadedly receiving the screw means and engaging said outer plate to form an approximately cylindrical shield adapted to fit within the rim of a toilet bowl and having a downwardly extending notched opening adapted to receive the abdominal portion of a user; and depending legs carried by said outer plate for holding the shield on the rim of the toilet bowl.

11. The combination of claim 10 in which the upper edge of said inner plate is formed as an outwardly curved lip extending over the end projections of the plastic member.

12. A colostomy irrigation shield comprising an elongated approximately rectangular plastic member, said plastic member being formed with a reduced projection at the lower corner of each end and each of said end projections having a longitudinal slot formed therein; inner and outer clamping plates having similar lengthwise curvatures receiving said end projections therebetween, said inner plate having integral screw means projecting outwardly therefrom and through the slots of said end projections, and said outer plate having apertures therein receiving said screw means; nuts threadedly receiving the screw means and engaging said outer plate to form an approximately cylindrical shield adapted to fit with in the rim of a toilet bowl and having a downwardly extending notched opening adapted to receive the abdominal portion of a user; a flat cover extending over and resting on the upper edge of said plastic member and having a downwardly projecting portion extending across the upper portion only of the notched opening and engaging the adjacent edge portions of said plastic member; and depending legs carried by said outer plate for holding the shield on the rim of the toilet bowl.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
544,105	Madsen	Aug. 6, 1895
1,749,050	Walker	Mar. 4, 1930
2,065,226	Kennedy	Dec. 22, 1936
2,458,308	Smoot	Jan. 4, 1949
2,489,967	Lavine	Nov. 29, 1949
2,568,857	Jacobs	Sept. 25, 1951

FOREIGN PATENTS

Number	Country	Date
21,913	Great Britain	Oct. 4, 1907