

March 6, 1951

F. J. ARDNER
COLOSTOMY PROTECTOR
Filed June 20, 1949

2,544,579

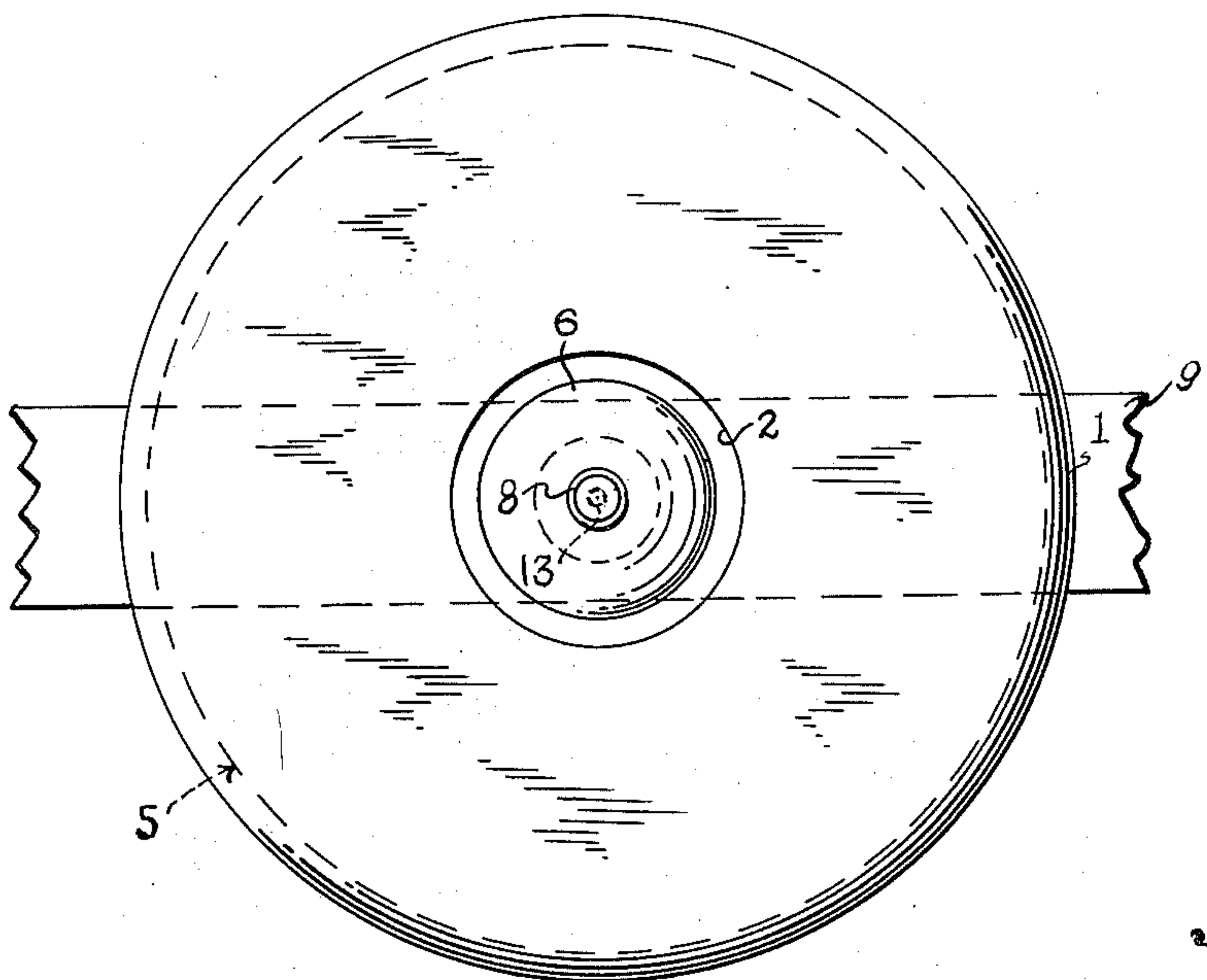


Fig. 1

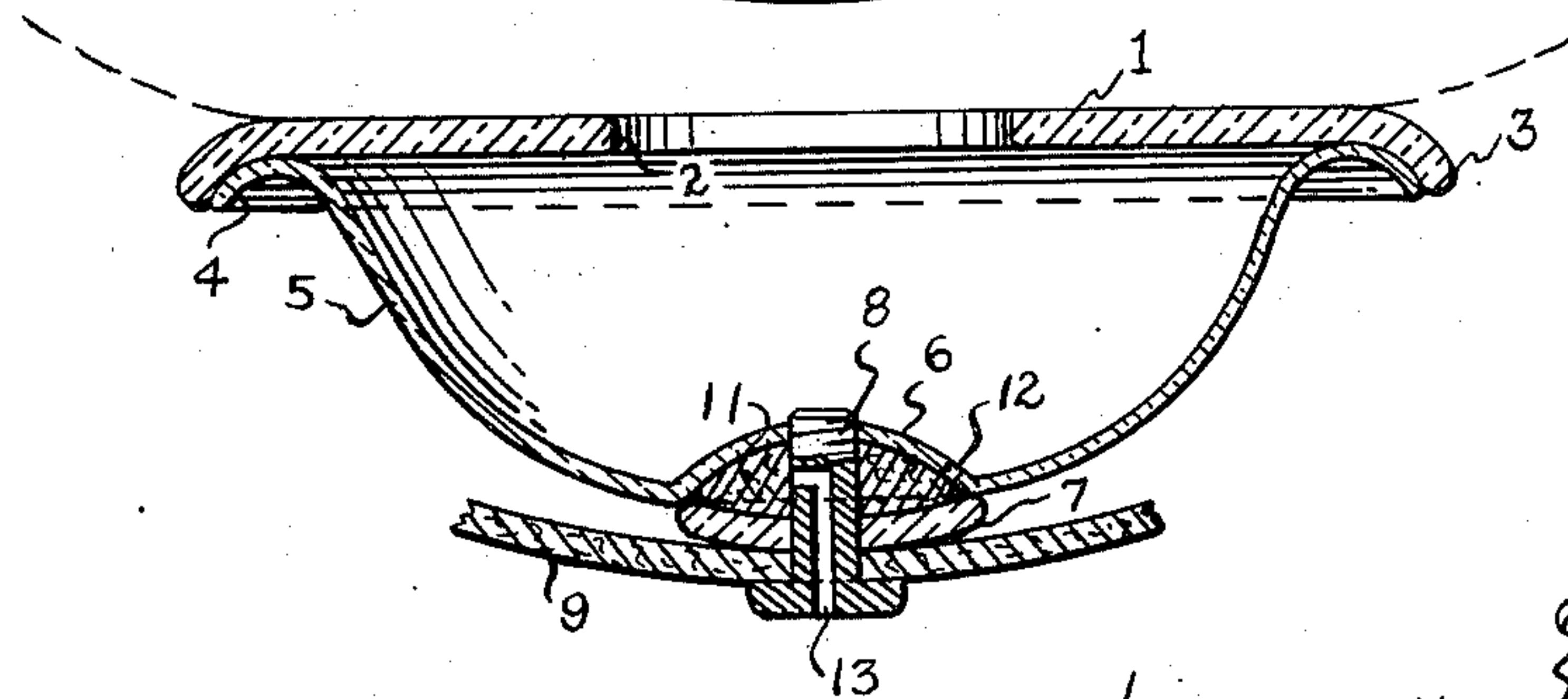


Fig. 2

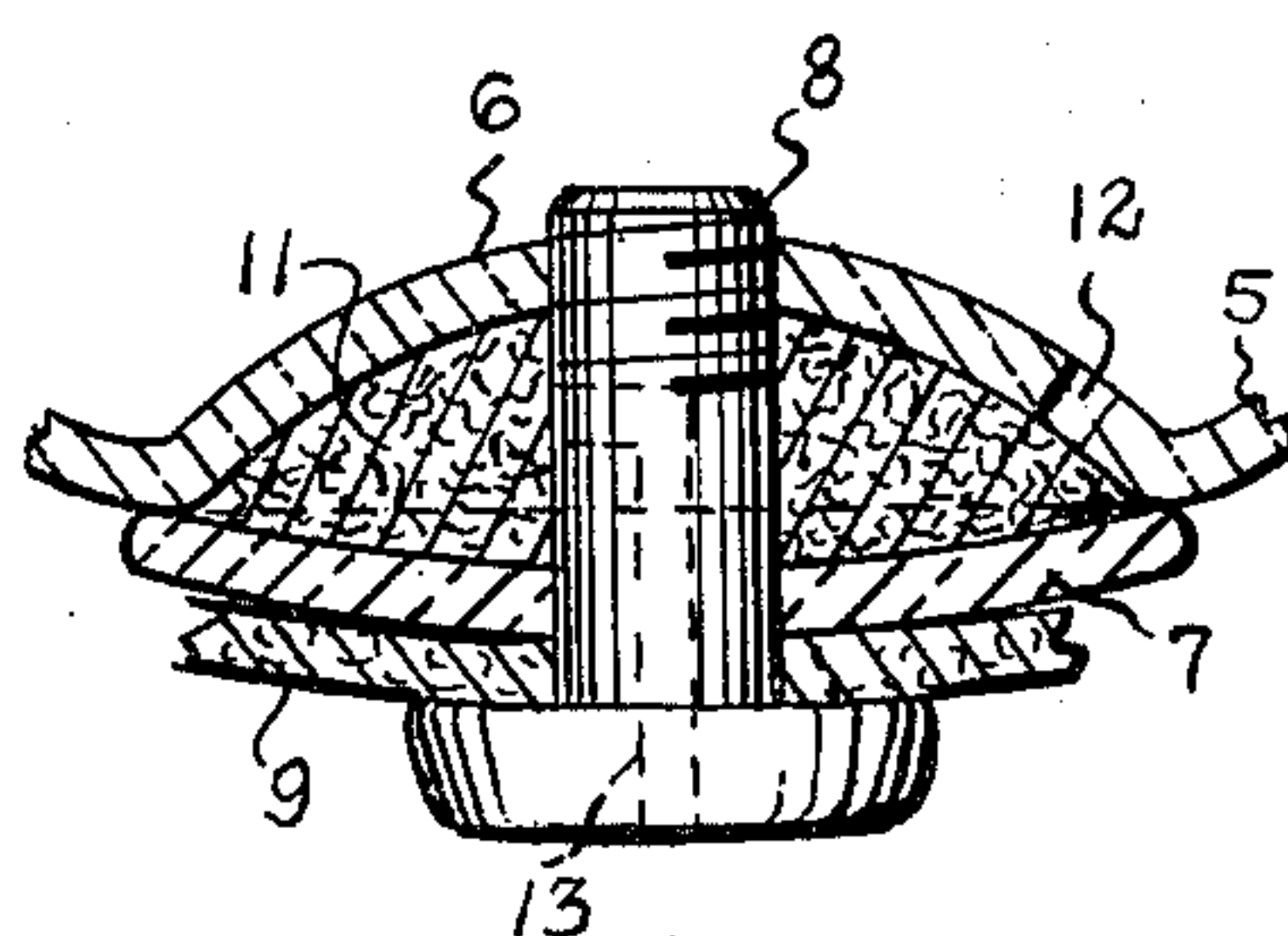


Fig. 3

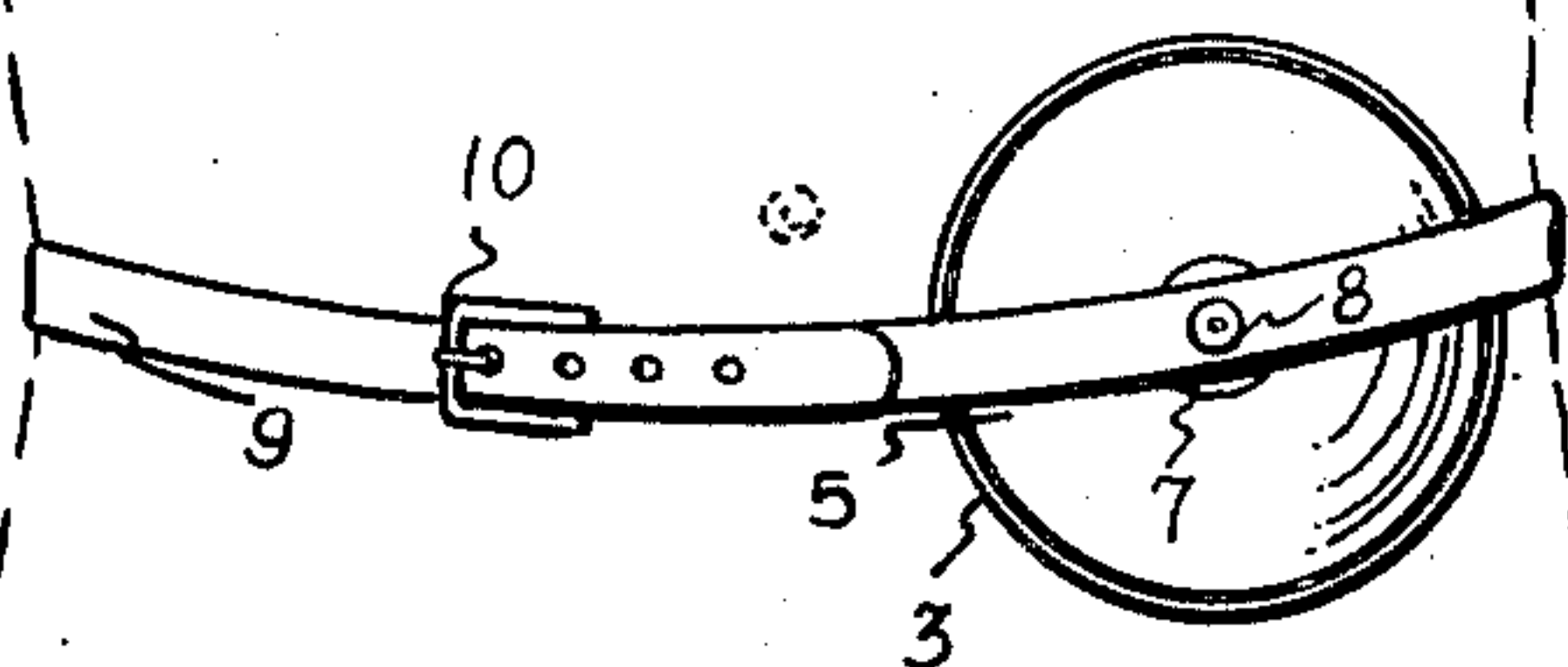


Fig. 4

Inventor
Frank J. Ardner

J. S. Murray
Attorney

UNITED STATES PATENT OFFICE

2,544,579

COLOSTOMY PROTECTOR

Frank J. Ardner, Highland Park, Mich.

Application June 20, 1949, Serial No. 100,149

6 Claims. (Cl. 128—283)

1

This invention relates to surgical appliances and particularly appliances designed primarily for colostomy use, and commonly termed colostomy protectors.

An object of the invention is to provide an improved type of protector and receptacle for use as a cover and shield for the outlet of any surgical incision, wound or sore, and primarily a colostomy passage, protecting any raw or sensitive surface, and receiving any excretion that may occur, and serving in colostomy use to receive feces.

A more specific object of the invention is to form an appliance of the described character in two parts, jointly forming an adequate receptacle, said parts seating one on the other in a sealing engagement, but being freely separably upon release of the appliance from the human body, whereby the appliance may be quickly, easily, and thoroughly cleaned, so as to be completely sanitary.

Another object is to provide such an appliance with an improved vent for any gas discharged from a colostomy and to provide for deodorizing such gas.

Another object is to form the described appliance of a material characterized by a transparency permitting the user to readily see whether there is need for cleaning out the receptacle; having a strength and flexibility resisting considerable shocks; having a resiliency useful in establishing a perfect fluid-tight seal between the primary parts of the appliance; suited to minimize weight imposed on the wearer of the appliance; that will not be subject to corrosion or like deterioration; and that may be easily filed or whittled if necessary to comfort of the wearer.

Another object is to adapt an appliance of the described character to be readily detached from the belt whereby such appliance is normally held in place.

These and various other objects are attained by the construction hereinafter described and illustrated in the accompanying drawing, wherein:

Fig. 1 is a front view of my improved appliance.

Fig. 2 is a diametrical sectional view of the appliance.

Fig. 3 is a fragmentary enlargement of a portion of Fig. 2, particularly disclosing the provision for venting gas.

Fig. 4 is a view showing attachment of the appliance to the human body.

In these views, the reference character 1 designates a disk of smooth, light, transparent sheet material, approximately saucer-shaped. Such disk is adapted to seat on the human body and

2

has a central aperture 2 proportioned to expose the outlet of the colostomy passage or some other body area subject to excretion. The margin of the disk forms an annular forwardly curved flange 3, serving as a seat for the correspondingly shaped margin 4 of the bowl-shaped front or cover member 5 of the appliance, which is also formed as a transparent, light-weight plastic. Depth of the member 5 is such as to assure a desired capacity for the receptacle jointly formed by the members 1 and 5. The member 5 has its central portion 6 somewhat depressed, forming a shallow circular cavity, and a disk 7 covers such cavity, seating freely marginally of the cavity, and forming a fluid-tight seal with the member 5. Said disk is preferably slightly domed to increase the capacity of the underlying cavity. The disk 7 is integral with or otherwise rigidly carried by a stud 8, centrally threaded into the member 5 and having its front end headed to clamp the disk 7 in place and to further clamp a belt 9 against the disk. Such belt may be of leather or other suitable material being adapted to embrace the body in the usual manner, and to be fastened by a buckle 10 or the like, thus holding the appliance in use position. The cavity underlying the disk 7 receives a filter 11 such as fibrous cotton or the like, treated with a deodorant chemical. Such gases as enter the receptacle formed by members 1 and 5 escape through a small vent 12 to said filter cavity, being there deodorized, and an angular passage 13 in the stud 8 affords a forward escape of gases from said cavity.

It is of utmost importance that an appliance of the described character serving primarily for colostomy use be suited to thorough and easy cleaning. Such cleaning is made feasible by forming the receptacle of two readily separable primary parts. Employing two such parts, freely seating one on the other entails a sealing problem which finds its solution in the interengaged flanges 3 and 4, establishing sealing areas of considerable extent. These areas are perfectly conformed one to the other under pressure applied by the belt 9, and resiliency of the somewhat thinner flange 4 will shape it, under pressure, to the flange 3 even if the two flanges are not normally perfectly mated. Important also is the avoidance of any telescoping fit between the two primary parts, such as would entail considerable care and accuracy in establishing their proper assembly.

Also vitally important are the characteristics of the plastics used to form the members 1, 5, and 7 of my appliance. It is preferred to employ ma-

terials which are highly transparent, readily fashioned, and resistant at least to mild chemicals. It is also preferred that the member 5 possess a resilient flexibility affording it a slight expansion under pressure of the belt 9, assuring a marginal seal under radial pressure as well as in parallelism with the axis of the appliance.

What I claim is:

1. A receptacle-forming colostomy protector, comprising a bowl-shaped member for applying 10 pressure at its margin to the human body, the major portion of said member being outwardly spaced from said body and having a centrally indented portion forming a cavity, exteriorly of said member, and having a gas vent to said cavity 15 from the interior of said member, the margin of said member being bent outwardly from the axis of said member and curved to diverge from the human body in seating said member, a belt for attaching the protector to the human body, 20 means for positioning the protector on the belt, occupying a central relation to said cavity and affording a vent from the cavity, a cover for the cavity interposed between the belt and said member, and filter means within said cavity. 25

2. A receptacle-forming colostomy protector as set forth in claim 1, said cover being held in sealing engagement with the margin of said cavity by said positioning means.

3. A receptacle-forming colostomy protector as 30 set forth in claim 1, said belt and cover being operatively secured to said member by said positioning means.

4. In a receptacle-forming colostomy protector, a holder for filtering material in exterior prox- 35 imity to the receptacle formed by the protector, said receptacle being vented to said holder, a

cover for said holder, a belt for positioning the protector on the human body, and a common means for operatively securing the protector to the belt and retaining the cover on the holder.

5. A colostomy protector comprising inner and outer receptacle-forming members separably seated one on the other and forming a fluid-tight seal in so seating, the inner member having an opening to admit material between said mem- bers, a belt for securing the protector to the hu- man body, and an element connecting the outer member to the belt and having a passage for venting gases from the receptacle formed by said members.

6. In a receptacle-forming colostomy protec- tor, a belt for securing such protector to the hu- man body, a stud attaching the protector to the belt, and a disk peripherally seating on the pro- tector and forming therewith a filter chamber, said stud extending through such chamber and holding the disk properly seated, the protector having a gas vent opening into said filter cham- ber and the stud having a passage venting gas from said chamber.

FRANK J. ARDNER.

REFERENCES CITED

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

UNITED STATES PATENTS

Number	Name	Date
2,054,535	Diack -----	Sept. 15, 1936
2,205,270	Perry -----	June 18, 1940
2,327,514	Fenwick -----	Aug. 24, 1943
2,380,740	Fenwick -----	July 31, 1945