T. WIEDEMANN & J. H. TEMPLIN.

VACUUM CLEANER COVER.

APPLICATION FILED JULY 31, 1909.

967,696. Patented Aug. 16, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

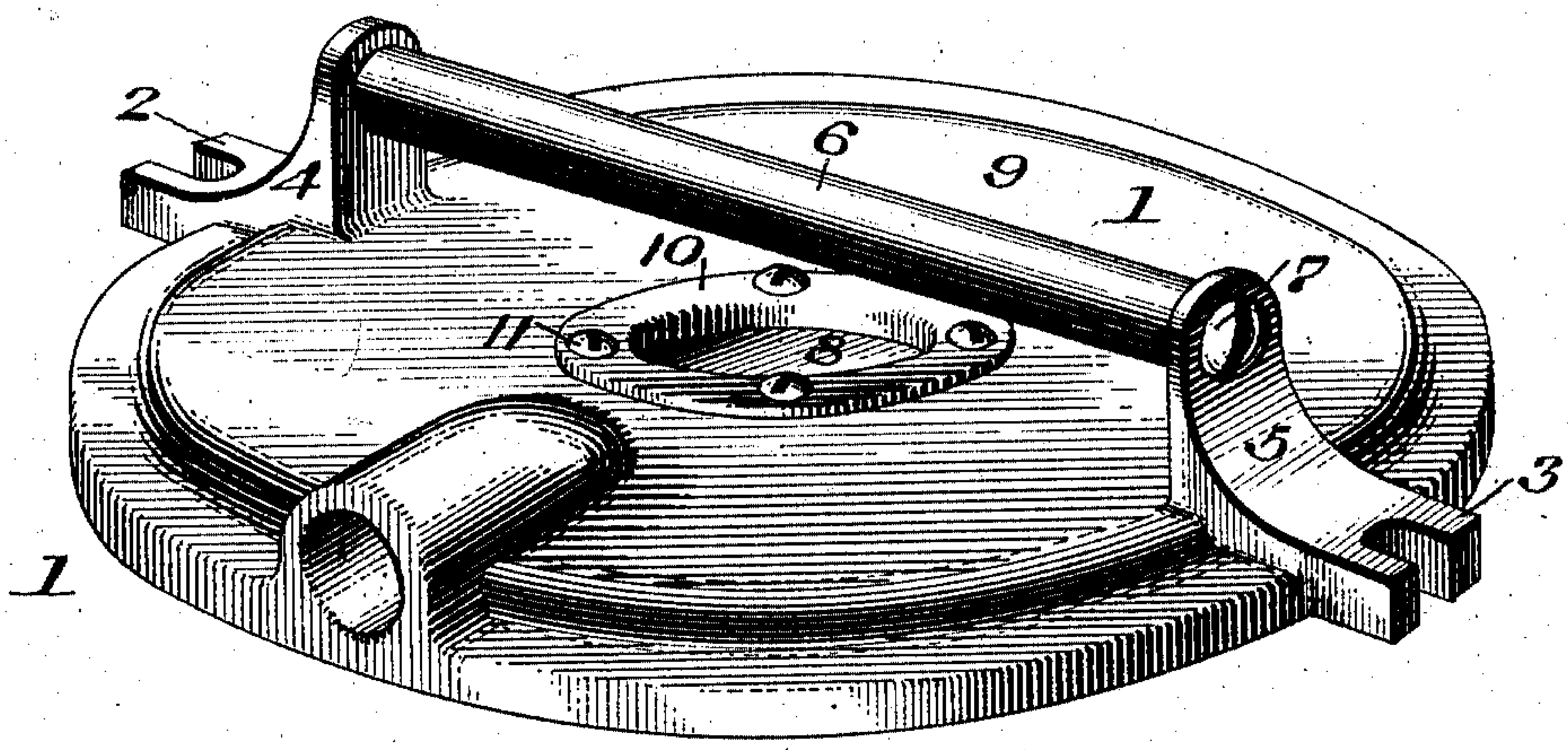
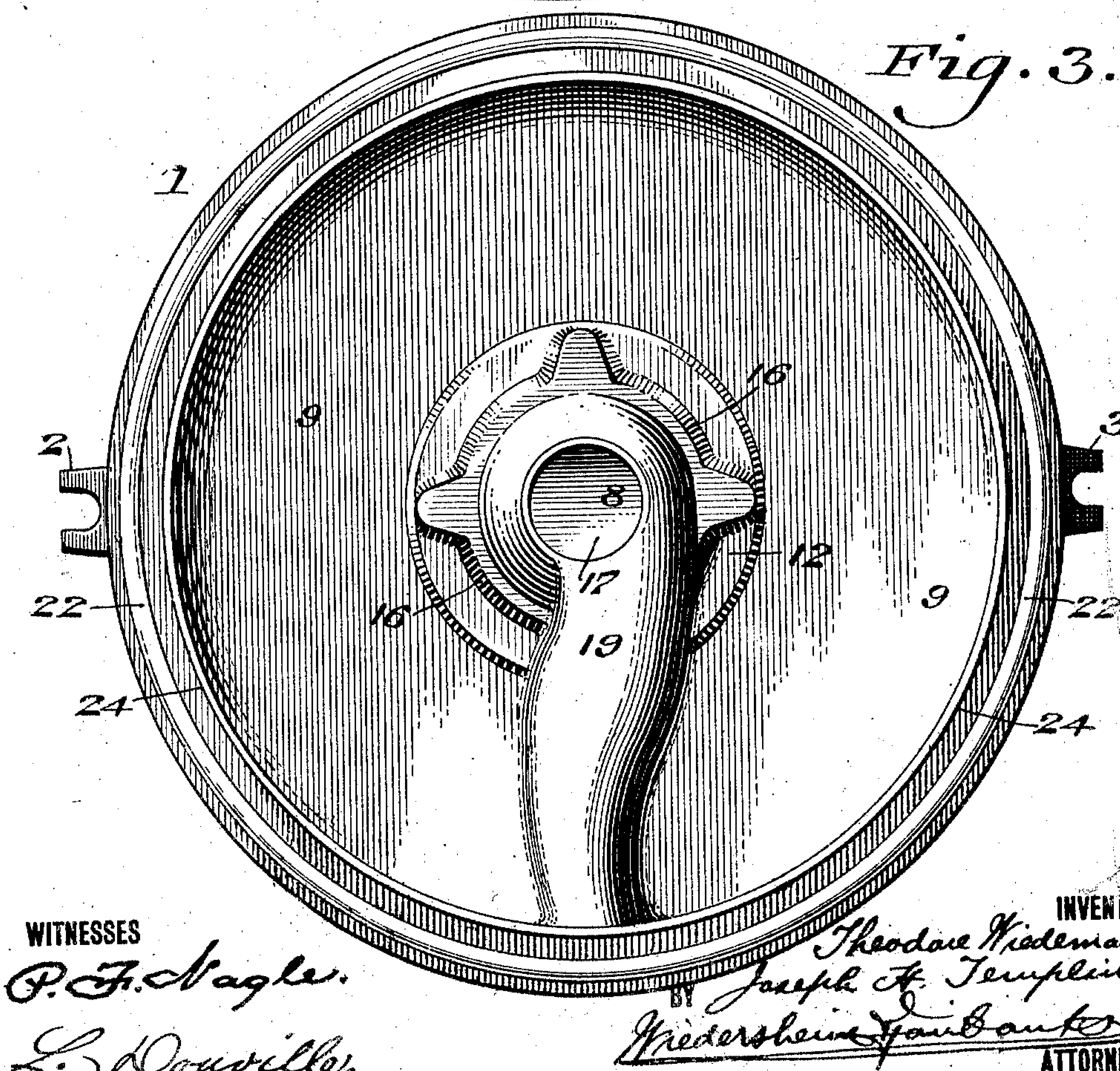


Fig. 3.



WITNESSES

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2 SHEETS—SHEET 2.

Fig. 2.

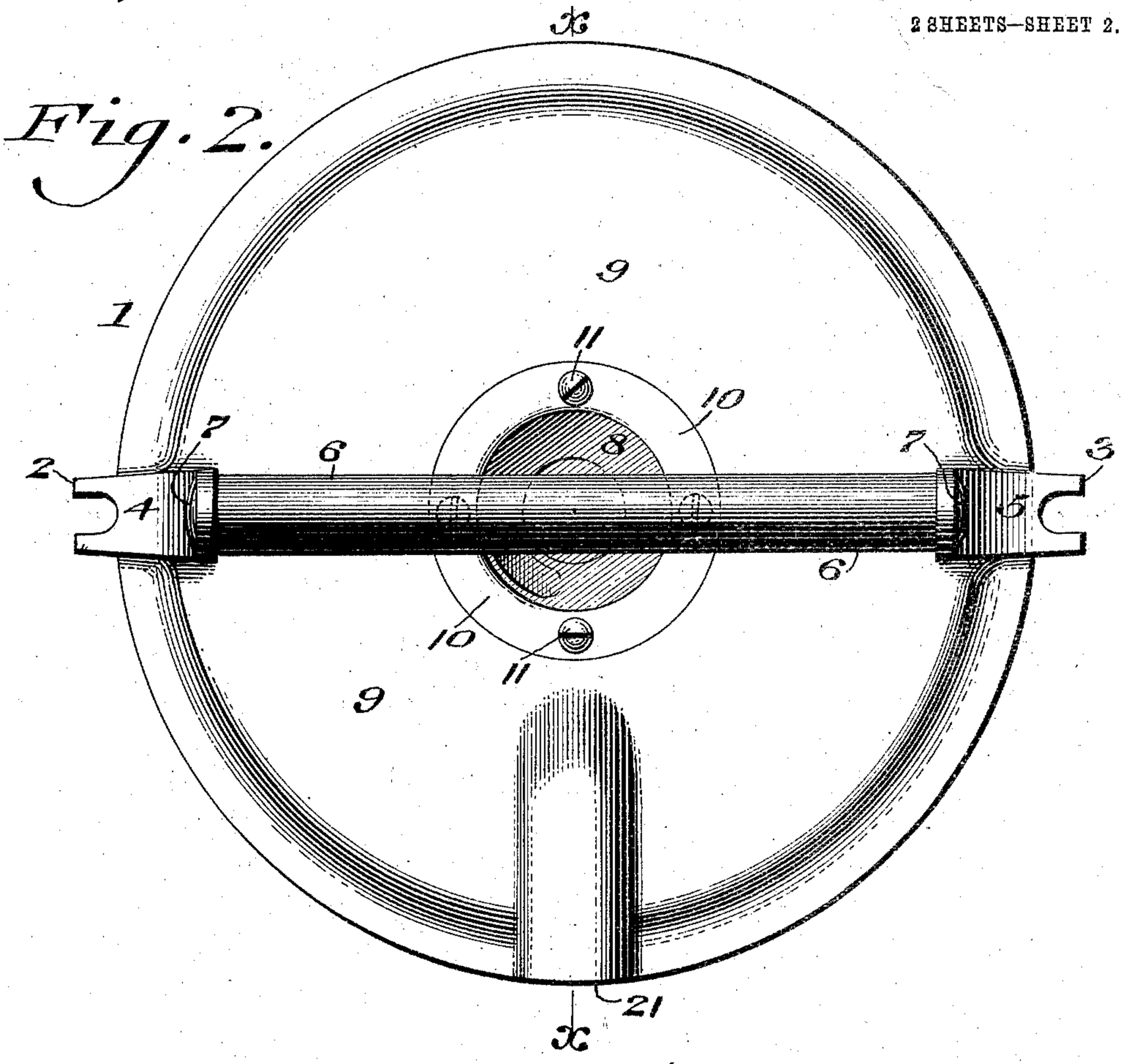
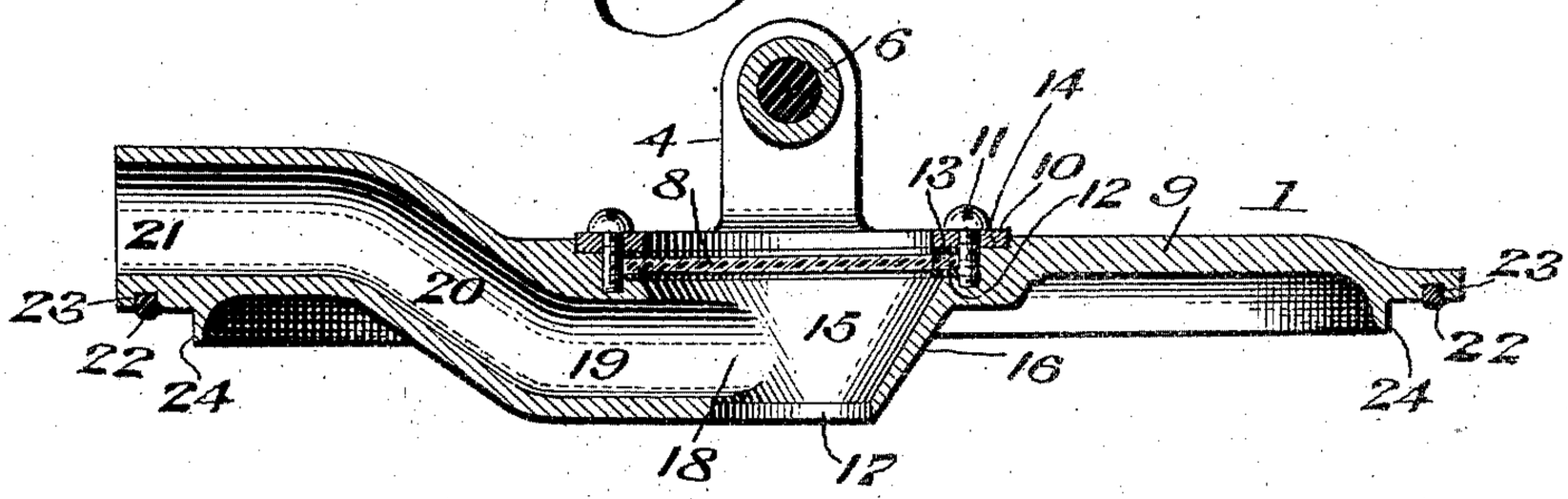


Fig. 4.



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UNITED STATES PATENT OFFICE.

THEODORE WIEDEMANN AND JOSEPH H. TEMPLIN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNORS TO KELLER MANUFACTURING COMPANY, A CORPORATION OF DELAWARE.

VACUUM-CLEANER COVER.

967,696. Specification of Letters Patent. Patented Aug. 16, 1910.

Application filed July 31, 1909. Serial No. 510,560.

To all whom it may concern:

Be it known that we, THEODORE WIEDEMANN and JOSEPH H. TEMPLIN, citizens of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Vacuum-Cleaner Cover, of which the following is a specification.

Our present invention consists of a novel construction of a cover for vacuum cleaners wherein the cover is provided with a transparent portion and a passage for conducting dust laden air into proximity to the transparent portion, provision being also made for deflecting the current of dust laden air to cause the same to impinge against the transparent portion in order to effect the scouring of the glass and thereby prevent accumulation thereon of dust and foreign material.

A further purpose of our invention is to protect the sight aperture or observation device by means of the handle of a vacuum cleaning device.

It further consists of other novel features of construction, all as will be hereinafter fully set forth.

For the purpose of illustrating our invention, we have shown in the accompanying drawings one form thereof which is at present preferred by us, since the same has been found in practice to give satisfactory and reliable results, although it is to be understood that the various instrumentalities of which our invention consists can be variously arranged and organized and that our invention is not limited to the precise arrangement and organization of these instrumentalities as herein shown and described.

Figure 1 represents a perspective of a structure embodying one form of our invention. Fig. 2 represents a top plan view of the structure seen in Fig. 1. Fig. 3 represents a bottom plan view of the structure shown in Figs. 1 and 2. Fig. 4 represents a transverse section of Fig. 2 upon line *x*—*x* thereof.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings:—Upon the top 1 we show lugs 2 and 3 of general yoke shape for lateral insertion of any suitable fastening means by which the top is held to the casing of the vacuum cleaning apparatus. Most conveniently at the same point upon the top we provide brackets, projections or arms 4 and 5 between which we mount a handle 6 by any suitable retaining means as by a screw or screws 7, thus providing a central, transversely directed carrying handle at the top of the apparatus which handle serves the further purpose of protecting the glass or other cover 8 of our sight aperture or observation device which we prefer to place directly beneath the handle so that it can readily be viewed from either side thereof without serious interference therewith by the handle while mechanical protection from accidental blows is secured by it, said handle being furthermore of such length that it can be readily grasped by the hands of two operators when it is desired to move the cleaning apparatus (not shown) from one point to another. For further protection of the glass or other transparent cover 8, we set it slightly beneath the level of the cover 9 preferably within a depression in the form of a circular ring therein, and preferably hold it in place by a ring 10 and screws 11 the surface of the ring 10 being shown as slightly above the surface of the main portion of the cover at 9. For further protection of the transparent medium 8 against jars of various characters we provide a gasket upon each side thereof at 12 and 13 respectively between the bottom of the depression and the ring 10 and we further seat the ring 10 at its outer circumference preferably upon the metal of the top at 14 for the purpose of mechanically preventing too tight clamping of the ring 10 thus avoiding excessive strain upon the transparent medium. The sight aperture thus provided forms the top preferably of a dust space 15 which consists of a depressed chamber, formed preferably within and carried by the cover 9, which chamber we most desirably form of cylindrical, conical or cupped form and which we have here illustrated as conical or cupped, having sides 16 sloping toward each other as they extend downwardly. Preferably at the bottom of this space and in the present instance at the smaller end of the truncated cone or partially closed cylinder or cup thus formed we provide a discharge aperture 17 for the dust-laden air which has been received within the space 15.

In order to prevent interference of the incoming and outgoing current of air with-

in the receiving chamber 15 and to provide some continuous path of flow of the dust therein, as well as to retain the air within this space for an appropriate time we preferably admit the air in a circumferential or tangential direction through opening 18 of tube 19 which is out of line with the axis of the space and which is preferably located in the under part of the cover, it being however apparent that it is only necessary for the inlet passage to discharge into the depression 15, or its equivalent, at an angle to the outlet 17 to conform to the spirit of our invention, since this will effect the temporary retardation of the current and will enable the operator to observe in the most efficient manner the character or density of the dust laden air current. This tube 19 connects by means of a pipe 20 with any suitable inlet 21, preferably formed on the outside of the casing and radially with respect thereto, with the result that the pipe 20, as best shown in Figs. 3 and 4, not only dips from the outer part of the cover into the inner part thereof but also departs from the general radial direction or plane in such passage.

In the outer part of the top 1, we have shown a gasket at 22 which is inserted within a groove 23 and which, along with the flange 24, protects against leakage.

We are aware that it is a common right to place a transparent material in a passage or duct to enable the progress of the contents therein to be observed, and that it has been heretofore proposed to employ inlet and outlet openings in such a device in alinement with each other and to none of the above devices do we herein make our claim.

The means which we have preferred to show to illustrate one manner of deflecting dust laden air against the transparent portion to scour the same consists of the conical chamber 15 and the manner in which the inlet opening 18 communicates therewith but it is to be understood that this embodiment illustrates but one of many constructions which may be employed for this purpose.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent, is:—

1. In a device of the character stated, a cover having a chamber therein adapted to receive a current of dust laden air and provided with an outlet therefrom, a transparent plate for said chamber, and means for securing said plate to said chamber, the latter having an inlet passage leading thereinto.

2. In a device of the character stated, a cover having a depression therein provided with curved side walls and having an outlet therefrom, a transparent plate for the top of said depression, a detachable ring for holding said plate in position, and a handle secured to said cover and extending across the latter, said cover having an inlet passage discharging into said depression.

3. A vacuum cleaner cover provided with a compartment of approximately circular cross section having an inlet thereto tangential to said section, and an outlet substantially at an angle to the same, a transparent plate forming the outer wall of said compartment, gaskets above and below said plate, a ring for holding one of said gaskets in place, and means for securing said ring in position, and said compartment having its inner wall formed to deflect the current of dust laden air against the transparent plate to prevent clouding of the same by the dust laden air.

4. A vacuum cleaner cover provided with an intermediate air receiving compartment of approximately conical shape in cross section having means for admission of air at the side of the cone and out of line with the axis thereof, and an outlet approximately at the smaller end of the cone, in combination with a transparent covering for the larger end of said cone, against which the dust laden air impinges to prevent accumulation thereon of foreign material, gaskets above and below said covering and a detachable ring for securing said gaskets and covering in position.

5. In a device of the character stated, a cover for a vacuum cleaner comprising a plate, having a bowl shaped depression therein, an inlet duct in said cover extending radially thereof and thence discharging downwardly and tangentially into said depression, the outlet of the latter extending downwardly therefrom, a transparent cover for the top of said depression and a ring and packing devices for retaining said cover in position.

6. As an improved article of manufacture, a cover for a vacuum cleaner comprising a plate, having oppositely located brackets therein, said brackets being located near the edges of said plate, a handle having its ends secured in said brackets, and extending diametrically across said cover and above the latter, and an observation device located in said cover and protected by said handle, said device comprising a depression in said cover having an inlet leading thereto, an outlet discharging from the lower portion of said depression, and a transparent cover for the latter.

7. As an improved article of manufacture, a cover for a vacuum cleaner, comprising a body having oppositely located brackets, a handle secured to said brackets and extending across said cover and above the latter, and an observation device carried by said cover, said device consisting of a depressed

chamber having an inlet leading thereto, an outlet discharging from said chamber and a transparent plate for the latter.

8. As an improved article of manufacture, a cover for a vacuum cleaner, comprising a body having cast therein an inlet passage and also a chamber having an outlet therefrom into which said inlet passage leads, a transparent plate forming the outer wall of said chamber, a gasket for said plate, and means for holding said gasket and plate in position.

9. As an improved article of manufacture, a cover for a vacuum cleaner, comprising a body having cast therein an inlet passage and also a chamber having an outlet therefrom into which said inlet passage leads, a transparent plate forming the outer wall of said chamber, a gasket for said plate, and means for holding said gasket and plate in position, in combination with brackets also cast on said cover, and a handle extending across said cover and above the latter and having its ends secured in said brackets.

10. A cover for a vacuum cleaner having a transparent portion and provided with a passage for conducting dust laden air in proximity thereto and with means for deflecting the dust laden air against said transparent portion to scour the same.

11. A cover for a vacuum cleaner having an inlet passage leading thereinto, an observation chamber at the inner end of said passage and adapted to open directly into the vacuum chamber and a transparent covering for said observation chamber.

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