

No. 871,304.

PATENTED NOV. 19, 1907.

O. DE F. SKIBSTED.

APPARATUS FOR SUCKING DUST FROM UPHOLSTERED FURNITURE, &c.

APPLICATION FILED AUG. 30, 1906.

2 SHEETS—SHEET 1.

Fig 1

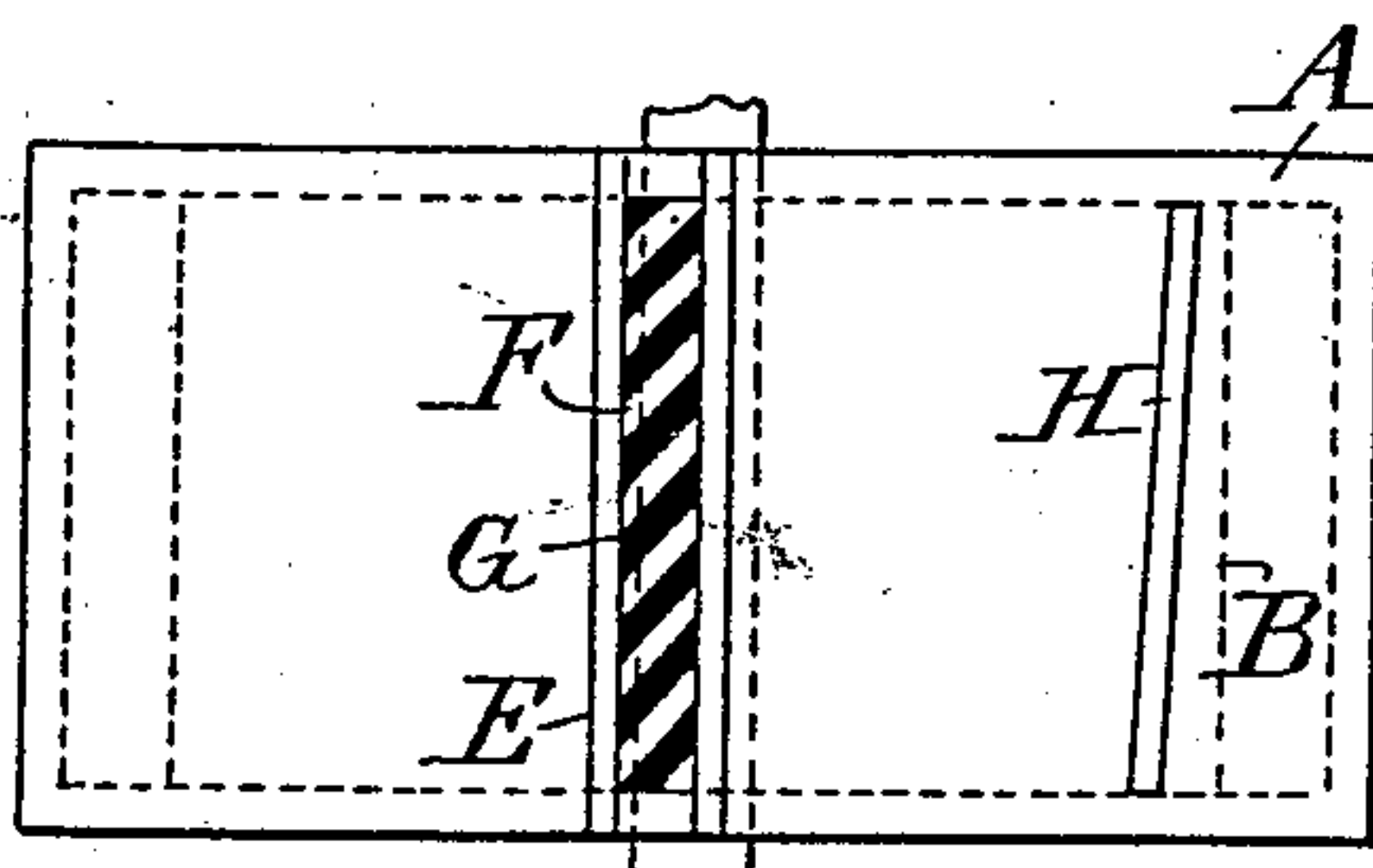


Fig 2

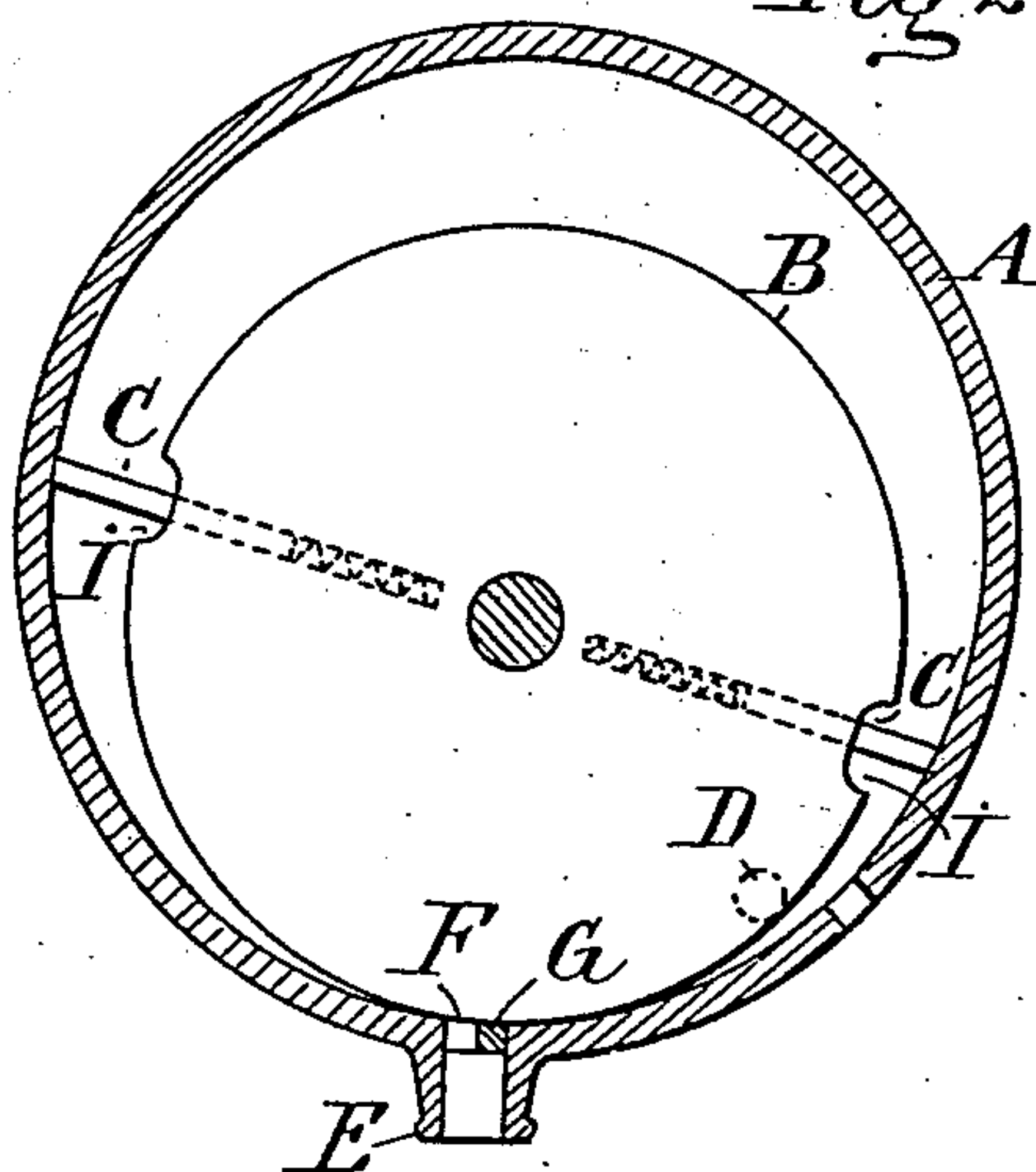
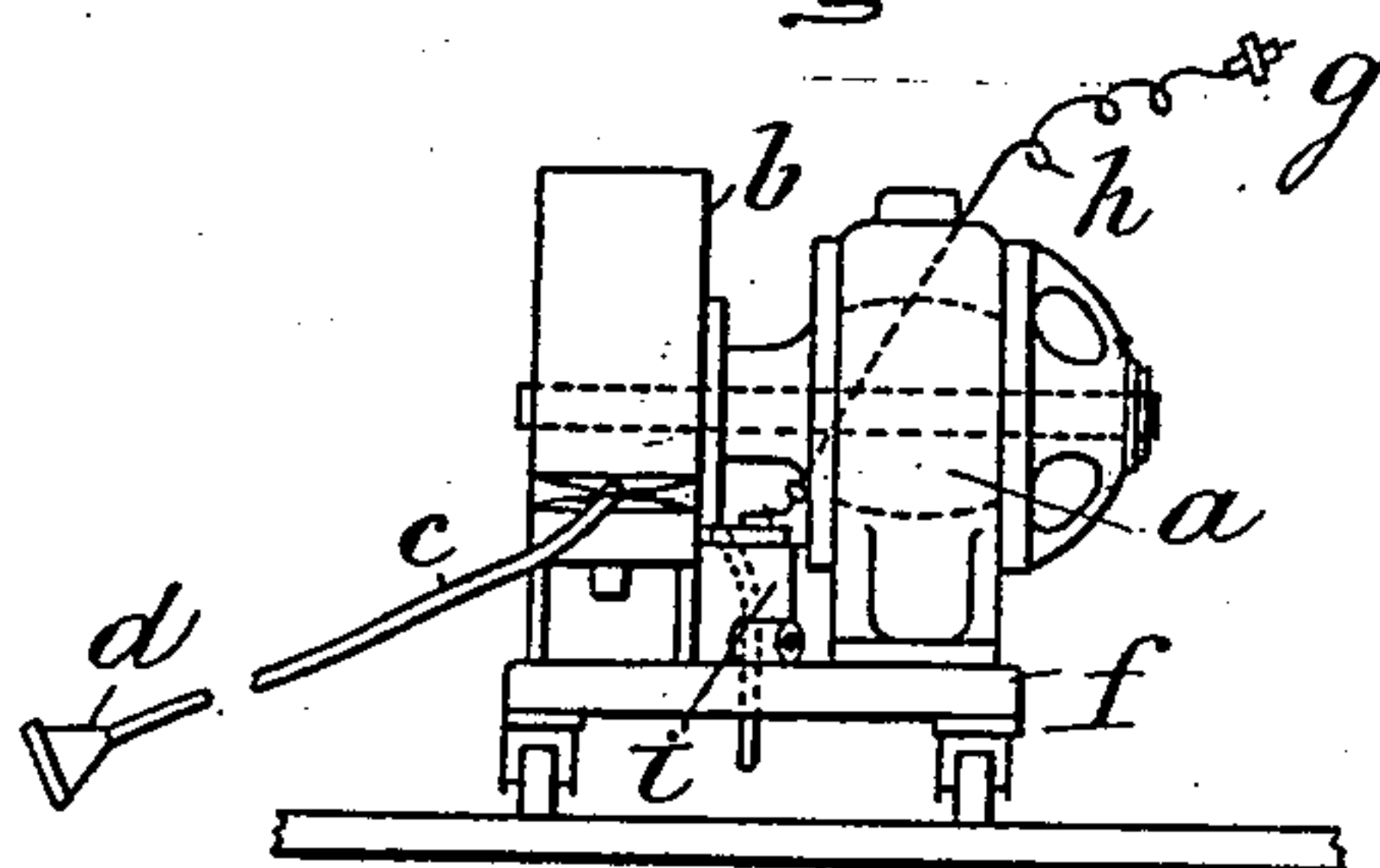


Fig 4



Witnesses
Harry Fleischer.
John O. Seifert.

Inventor
Ove de Fine Skibsted.
By his Attorney,
F. H. Richards.

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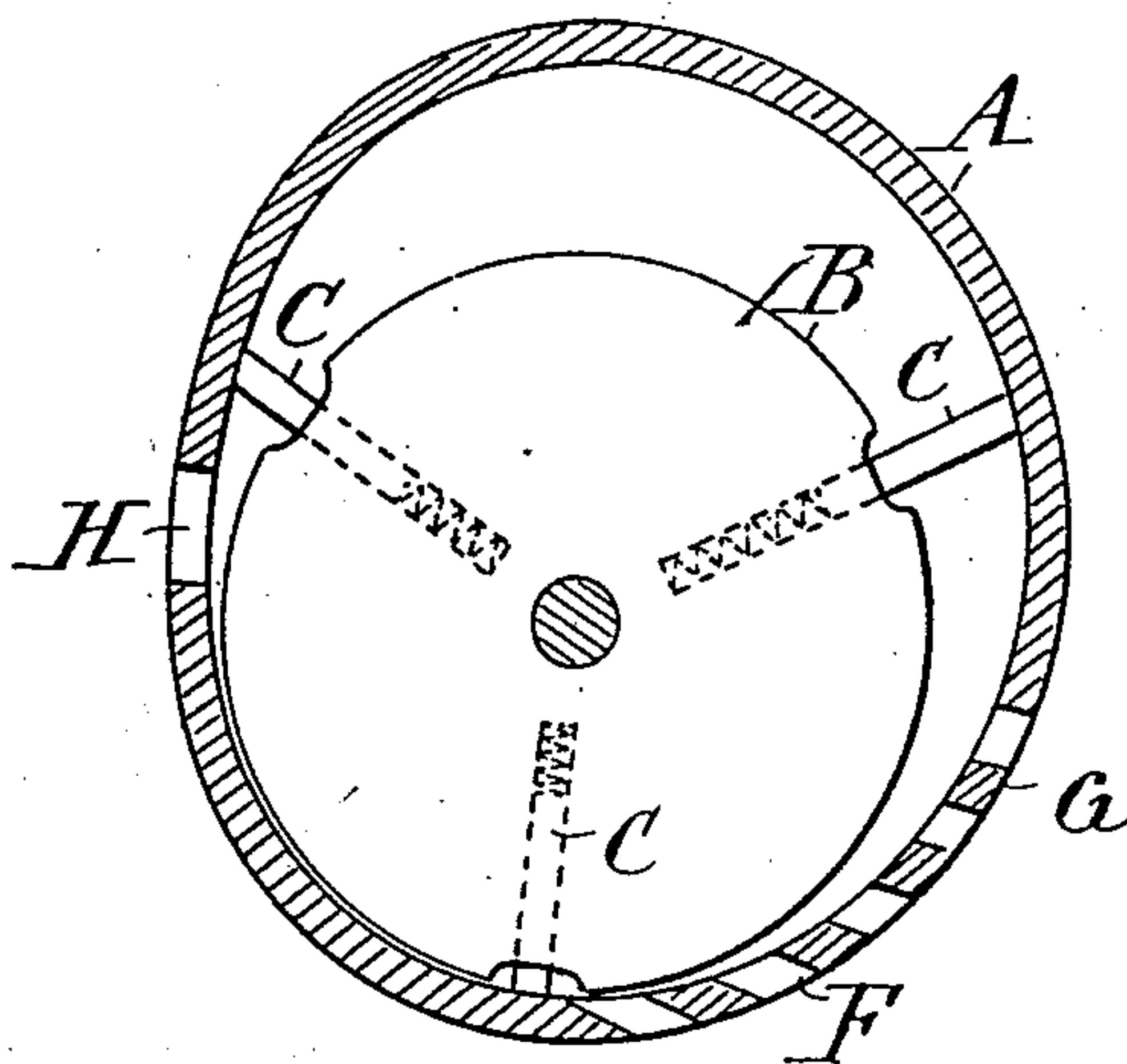
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2 SHEETS—SHEET 2.

Fig 3



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John A. Seifert.

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F. A. Richards.

UNITED STATES PATENT OFFICE.

OVE DE FINE SKIBSTED, OF COPENHAGEN, DENMARK.

APPARATUS FOR SUCKING DUST FROM UPHOLSTERED FURNITURE, &c.

No. 871,304.

Specification of Letters Patent.

Patented Nov. 19, 1907.

Application filed August 30, 1906. Serial No. 332,562.

To all whom it may concern:

Be it known that I, OVE DE FINE SKIBSTED, lieutenant, who is a citizen of the Kingdom of Denmark, residing at Strandgade 44, Copenhagen, Denmark, have invented a new and useful Apparatus for Sucking Dust from Upholstered Furniture, Carpets, Wall-Coverings, &c.; and I do hereby declare the following to be a full, clear, and exact description of the same.

This invention relates to an apparatus in the nature of a suction pump, especially designed for withdrawing air laden with dust and small particles from carpets, furniture and similar places, and has for its object to provide an improved form of operative member that will not be deranged by the particles of dust and dirt passing through it.

One of the objects of the invention is to provide an improved means for lubricating the ends of the vanes that engage the inner wall of the shell or casing.

Another object of the invention is to provide means for scraping or cleaning the ends of the vanes that engage the casing to remove the particles of dust and dirt therefrom.

In the drawing showing embodiments of my invention, Figure 1 is a bottom plan view. Fig. 2 is a vertical section. Fig. 3 shows in vertical section a modification of the invention; and Fig. 4 shows diagrammatically the usual method of mounting and using the device.

In a suitable casing A, a drum or disk B is mounted to rotate eccentric with the drum. The drum D is provided with a number of radial vanes C slidable in suitable slots in the drum B, the outer ends of the vanes engaging the inner wall of the casing. When the drum is rotated the vanes engaging the casing will draw air in at the inlet opening H, and rotating in the direction of the arrows, will force the air out at the opening F. The opening H is shown as slightly inclined to the axis of the casing and will have a progressive scraping action along the edge of the vanes as they pass the opening.

The opening at F is in the form of a series of diagonal slots, the portions between the slots acting to scrape the edges of the vanes and clean them of the particles of dust and dirt. At this exit a projecting portion E may be provided that can lead into a vessel

filled with water, to abstract the dust from the air forced through the device.

In Fig. 3 is shown a slight modification in which there are a plurality of openings F separated by intermediate portions g.

At the outer portions of the slots, in the drum B, in which slide the vanes C, are formed recess portions I, making the slots somewhat bell-mouthed. Lubricating material is placed in these recesses I for the vanes C, and will not be withdrawn therefrom by engagement of the drum with the casing. For introducing lubricant into the casing, an opening D is provided in one of the side walls of the casing, which opening is normally closed by the side face of the drum, but the opening registers with the recesses I in the drum during the rotation thereof. The suction action of the vanes will serve to draw in lubricant through the opening D, which will enter the recesses I. But such action will take place only during the comparatively short period of time that the recess I is registering with the opening in the casing.

The principal use of the invention is as a part of an apparatus as indicated diagrammatically in Fig. 4, in which the suction device b is mounted on a truck f and operated by a suitable motor such as an electric motor a whose shaft is directly connected with, or a part of the shaft of the drum B, the electric motor being connected by flexible cable H with a source of current, by means of a connector g. The switch i is placed on the truck for starting and stopping the motor when desired and for controlling its speed. A pipe c is connected with the opening H and has a mouth-piece d that is brought into contact with the furniture, carpets, etc. to suck in the dust.

What I claim and desire to secure by Letters Patent of the United States is:

1. In a suction device, the combination of a casing, a drum rotatably eccentric in the casing, inlet and outlet openings for the casing, the drum having radial slots therein, vanes arranged to reciprocate in said slot, the slots in the drum having enlarged mouth portions on both sides of the vanes at their outer ends, for receiving lubricant and causing the same to be drawn into the slots on reciprocation of the vanes.

2. In a suction device, the combination of

a casing, a drum rotatable eccentrically in the casing, inlet and outlet openings for the casing, the drum having radial slots therein, vanes radially movable in said slots, the slots
5 in the drums having enlarged portions at their outer ends for receiving lubricant, one of the side walls of the casing having an opening normally closed by the side wall of the drum, but registering with the said recessed
10 portion of the slots in the drum, whereby lu-

bricant will be sucked in the drum through the side opening and into the recessed portions of the slots.

In testimony whereof, I have signed my name to this specification in the presence of 15 two subscribing witnesses.

OVE DE FINE SKIBSTED.

Witnesses:

FLEISCHER,
ISOM SETER.