B. J. BOUWMEESTER.

PITMAN.

APPLICATION FILED JUNE 17, 1918.

1,291,743. Patented Jan. 21, 1919.

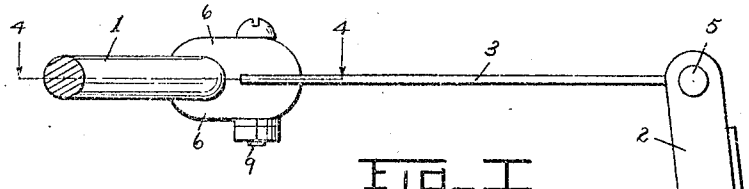


FIG. I

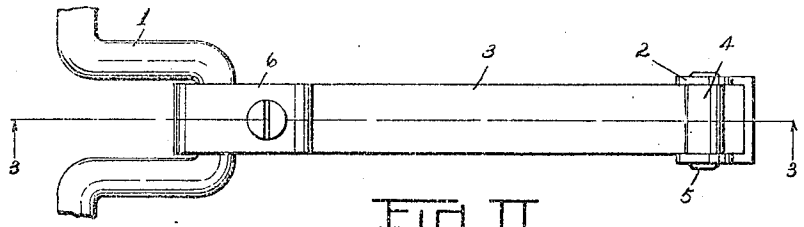


FIG. II

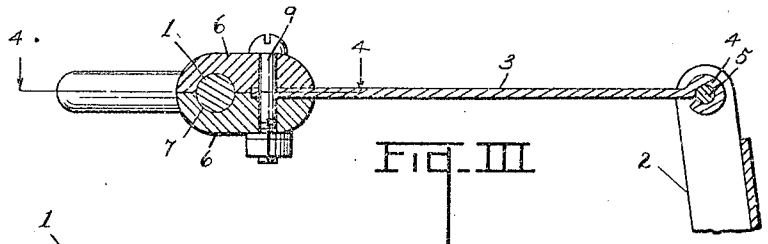


FIG. III

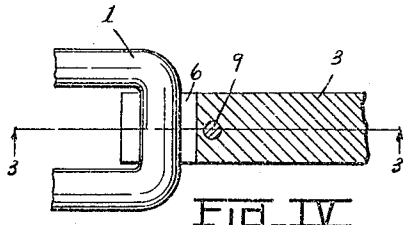


FIG. IV

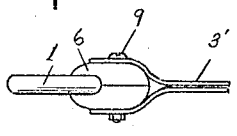


FIG. V.

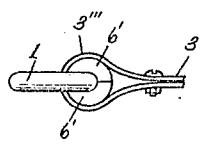


FIG. VI.

WITNESSES:

M. Louise Thurston

Lynn Gilman

INVENTOR.

Bernard John Bouwmeester

BY Chappell & Earl

ATTORNEYS.

THE NEW IS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

BERNARD JOHN BOUWMEESTER, OF GRAND RAPIDS, MICHIGAN, ASSIGNOR TO BISSELL CARPET SWEEPER CO., OF GRAND RAPIDS, MICHIGAN.

PITMAN.

1,291,743. Specification of Letters Patent. Patented Jan. 21, 1919.

Application filed June 17, 1918. Serial No. 240,356.

To all whom it may concern:

Be it known that I, BERNARD JOHN BOUWMEESTER, a citizen of the United States, residing at Grand Rapids, county of Kent, State of Michigan, have invented certain new and useful Improvements in Pitmen, of which the following is a specification.

This invention relates to improvements in pitmen.

My improved pitman is especially designed by me for use in carpet sweepers or vacuum cleaners such as shown in my Letters Patent No. 1,231,696, issued July 3, 1917, and I have illustrated the same as embodied in practice in a structure of that type. My improvements are, however, advantageous for use in certain other relations.

The main object of this invention is to provide an improved pitman which is self-lubricating and self-alining, obviating the necessity for attention in use and accuracy in manufacturing and assembling.

Further objects, and objects relating to structural details, will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification. The invention is clearly defined and pointed out in the claims.

A structure which is a preferred embodiment of my invention is clearly illustrated in the accompanying drawing, forming a part of this specification, in which:

Figure I is a detail view of a pitman structure embodying the features of my invention.

Fig. II is a side view of the structure appearing in Fig. I.

Fig. III is a detail longitudinal section on a line corresponding to line 3—3 of Figs. II and IV.

Fig. IV is a detail longitudinal section on a line corresponding to line 4—4 of Figs. I and III.

Fig. V is a detail view of a slight modification in the form of connecting the pitman to its bearing.

Fig. VI is another modification in the feature of connecting the pitman to its bearing.

In the drawing similar reference characters refer to similar parts throughout the several views, and the sectional views are taken looking in the direction of the little arrows at the ends of the section lines.

Referring to the drawing, 1 represents the driving crank which, in practice, constitutes the axle for the driving wheels in the embodiment shown in Letters Patent referred to.

2 represents an arm on the bellows of such a structure, it being the driven member in the structure illustrated.

The pitman 3 is formed of a flat bar of steel having its outer end formed into an eye 4 disposed between and secured to the driven member 2 by the pin 5, the pin being headed or upset to retain it.

I provide a bearing comprising a pair of complemental members 6 having opposed recesses 7 to receive the crank and opposed recesses 8 to receive the end of the pitman.

The bearing members are secured to the pitman and in engagement with the crank by the bolt 9 arranged through the bearing members and pitman, by means of which the parts are secured together in a manner which permits a limited swing or pivotal movement, so that the bearing may aline itself on the crank to compensate for any such inaccuracies as are likely to occur in the manufacture of structures of this character.

In the modified construction shown in Fig. V the pitman 3′ is formed of a strap folded upon itself with its ends lapped upon the outer sides of the bearing members, a bolt being arranged through both ends and through the bearing members securing the same effect as in Fig. III.

In the modification shown in Fig. VI the pitman 3″ is formed as a loop 3‴ at its inner end embracing bearing members 6′ which are cylindrical in general form. The loop embraces these bearing members loosely enough so that they aline themselves therein.

The bearing members are perferably formed of wood and treated with hot tallow or other lubricant material to provide a self-lubricating bearing. This is particularly desirable in vacuum cleaners of the type described, as the application of lubricant is not desirable as it would collect dust and thus cause undue wear of the bearing, and, further, excessive lubricant might be applied which would drip upon carpets, rugs or the like on which the cleaner was used.

My improved pitman is also of advantage in that it facilitates the manufacture and assembly of the parts.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. The combination of a driving crank, a driven member having spaced arms, a pitman formed of a flat bar having its outer end rolled into an eye which is disposed between and secured to said arms by a pin therethrough, and a pair of complemental bearing members disposed on opposite sides of the inner end of said pitman to embrace the crank and secured to the pitman by a single bolt arranged through the bearing members and pitman and permitting the self-alinement of the parts, the bearing members being formed of wood treated to render them self-lubricating.

2. The combination of a driving crank, a driven member having spaced arms, a pitman formed of a flat bar having its outer end rolled into an eye which is disposed between and secured to said arms by a pin therethrough, and a pair of complemental bearing members disposed on opposite sides of the inner end of said pitman to embrace the crank and secured to the pitman by a single bolt arranged through the bearing members and pitman and permitting the self-alinement of the parts.

3. The combination of a driving crank, a pitman formed of a flat bar, and a pair of complemental bearing members disposed on opposite sides of the inner end of said pitman to embrace the crank and secured to the pitman by a single bolt arranged through the bearing members and pitman and permitting the self-alinement of the parts, the bearing members being formed of wood treated to render them self-lubricating.

4. The combination of a driving crank, a pitman, and a pair of complemental bearing members embracing the crank and secured to the pitman by a single bolt arranged through the bearing members and pitman and permitting the self-alinement of the parts, the bearing members being formed of wood treated to render them self-lubricating.

5. The combination of a driving crank, a pitman, and a pair of complemental bearing members embracing the crank and secured to said pitman so that the parts are self-alining, the bearing members being formed of wood treated to render them self-lubricating.

In witness whereof, I have hereunto set my hand and seal in the presence of two witnesses.

BERNARD JOHN BOUWMEESTER. [L. S.]

Witnesses:
IRA J. OWEN,
FRED C. LINDNER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."