

M. FALK.
 DEVICE FOR CLEANSING CYLINDERS AND PISTONS OF DUST ASPIRATING PUMPS.
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Patented Oct. 5, 1909.

Fig. 1.

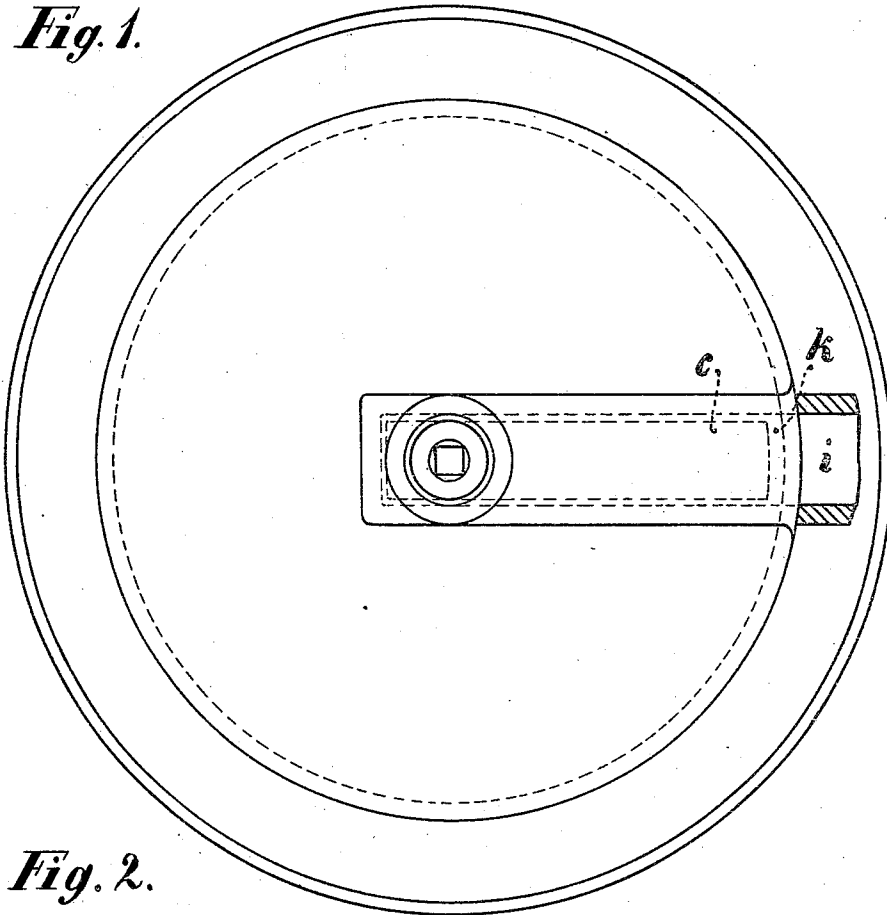
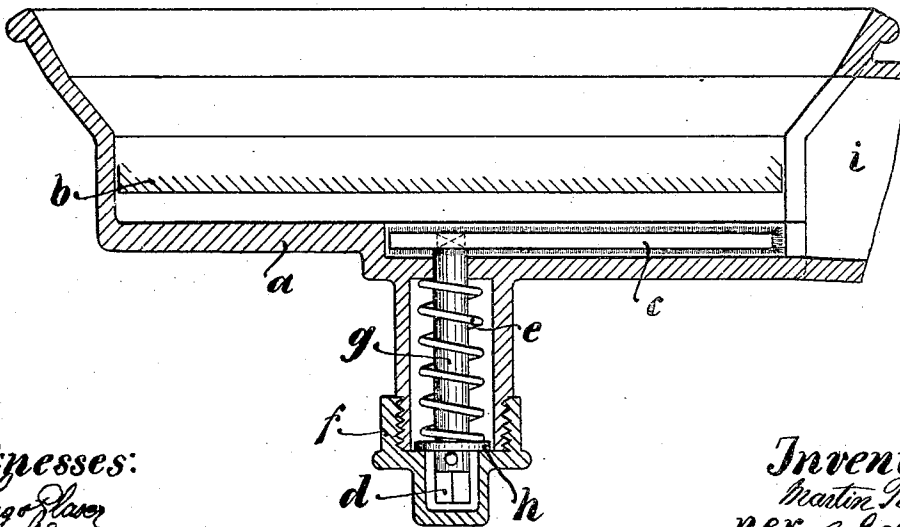


Fig. 2.



Witnesses:

Hugo Ploner
J. F. Dittmar

Inventor
Martin Falk
per J. F. Dittmar
Attorney

UNITED STATES PATENT OFFICE.

MARTIN FALK, OF COLOGNE, GERMANY.

DEVICE FOR CLEANSING CYLINDERS AND PISTONS OF DUST-ASPIRATING PUMPS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MARTIN FALK, a subject of the King of Prussia, German Emperor, residing at Cologne-on-the-Rhine, in the Province of the Rhine, Kingdom of Prussia, German Empire, have invented a certain new and useful Device for Cleansing Cylinders and Pistons of Dust-Aspirating Pumps, of which the following is a specification.

This invention relates to apparatus for cleaning the cylinders and pistons of dust aspirating pumps.

In the majority of dust aspirating pumps, now in use, there is formed in the interior of the cylinder even in a short time after commencing operations, and especially upon the surface of the covers and pistons, a more or less thick coating of dust. This disadvantage is especially prominent in pumps, the supply pipes of which, are placed in damp walls, because the moisture thickens the dust and greatly increases its deposit. These deposits are liable to endanger the working, especially if they are not removed for a considerable time, and consequently the space between the cylinder cover and the piston at the end of its stroke gets completely filled.

It has been repeatedly observed that excessive dust crusts between the cover and the piston produce damage to the pump parts. In order to remove the deposits it is therefore in all pumps necessary to effect an opening of the cylinder from time to time. Such an operation is troublesome, is a waste of time and cannot well be entrusted to unskilled persons, to whose care such apparatus is usually entrusted.

The present invention has for its object to effect a cleaning of the interior of the pump without rendering it necessary to open the same. The new device enables anyone with little skill and labor in a short time to remove all the injurious deposits from the interior.

The gist of the invention consists in a brush being arranged in the interior of the cylinder, which can be worked from the outside, to sweep all the surfaces exposed to deposits perfectly clean.

The drawing illustrates a construction of the invention.

The apparatus is shown in combination with the adjacent parts of a cylinder cover and of the pump piston. In these, *a* indi-

cates the cover, *b* the piston, *i* is a space connected with the valve-casing. In the dead space between the piston and the cylinder the brush *c* is placed, which brush can be operated from the outside by means of a crank on shaft *g* passing through the cover, and thereby sweeps the surface exposed to the deposit of dust. In the present instance, the arrangement of the cover and piston is for flat surfaces and the shaft passes through the middle of the cylinder cover, so that after placing of a crank upon the squared end *b* of the shaft, the brush can be revolved around in the cylinder, so that it sweeps the entire inner surface clean. The bristles can also be placed upon the opposite side of the brush, then the piston *d* can be also cleaned as soon as it has been brought sufficiently near the brush.

In order, to remove the brush when out of use in the cylinder cover is provided a suitably shaped cavity *k* into which the brush is pressed by means of a spring *e* surrounding the shaft.

In using the device it is necessary to press the shaft inwardly, against the pressure of the spring, so that the brush comes out of its cavity. A few turns are sufficient to remove all the deposits. The dust particles then fall into the valve space *i* and are withdrawn when the pump recommences to operate. For the guiding of the shaft *g* and the spring *e* there is preferably a special box provided on the lid, which, during the operation of the pump, is kept closed air-tight by means of a cap or the like *f*.

Having now described my invention, what I claim is:

1. A cylinder head having a recess on the inside thereof, a cleansing device normally in said recess and provided with a rod, extending through the head.

2. A cylinder head having a recess in the inside thereof, a brush normally within said recess, a rod extending through the head, a box inclosing said rod and means for holding the brush in its seat in said head.

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

MARTIN FALK.

Witnesses:

LOUIS VANDORN,
CHAS. A. RUND.