

SCOURING APPARATUS WITH SAND THROW.

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Fig. 2

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To all whom it may concern:

Be it known that I, GASTON CHARLES ORY, residing at Paris, France, have invented new and useful Improvements in Scouring Apparatus with Sand-Throw, of which the following is a specification.

This invention has for its object a device protecting the workman in scouring apparatus with sand-throw.

10 The sand and the air with high pressure produces large dust clouds, and it is very dangerous for the workmen to breathe for a long time and continuously in said clouds.

15 The dust-sucking devices proposed in view of avoiding these drawbacks are imperfect and in spite of them, the workmen are after a few years, obliged to abandon this kind of work because they are affected with diseases of respiratory organs.

20 The present invention protects the workman in insulating entirely from dust the cabin where he stands.

In the annexed drawing given by way of example:

25 Figure 1 is a sectional elevation view of the device.

Fig. 2 is a sectional detail view showing a way of mounting the sand-throwing nozzle.

30 In the said drawing, *a* is the room where the scouring operation is made, *b* is a dust-proof cabin located in or near the room *a*. The sand-throwing apparatus *c* is in the room *b* in order to facilitate its filling and the operation of cocks. The pipe *d* bears at its end a nozzle *e* which delivers a mixture of air and sand under pressure.

35 The cabin is provided with two apertures *f* and *h*. The aperture *f* is closed by a resilient or elastic diaphragm *g*, this diaphragm being entirely dust-proof and connected at its center with the nozzle *e*. It allows owing to its elasticity, all movements of the nozzle during the work.

In the other aperture *h* a fan *i*, electrically or otherwise driven sucks pure and fresh air without any dust through a chimney *k* opening in atmosphere without any communication with the room *a*. The air blast is directed according to the arrow *F*, and expels the fine and impalpable dust and generally speaking all dust particles having a small kinetic energy.

Besides the fan *i* prevents the introduction in the cabin *b* of sand grains having a sufficient kinetic energy to overcome the air current.

Finally owing to its rapid rotation it allows the workman to see through the aperture *h* the work made in the room *a* and to manage it properly.

Instead of a resilient diaphragm, any other suitable means can be used to support the nozzle *e*. For instance the device of Fig. 2 may be resorted to. It comprises a ball engaged in sockets *n*, each one being formed by two pieces clamped on the edge of the aperture *f* as shown clearly on the drawing.

The nozzle *e* can slide freely in the ball *m* and consequently the nozzle *e* can be at will oriented and operated.

I claim:

A device protecting the workman in the scouring operation by means of sand throw, characterized by a cabin for the workman located in or near the working room, a sand-throwing nozzle passing through the wall of the cabin, mounting means for the nozzle, said mounting means enabling the nozzle to be directed in any desired direction and also preventing the passage of dust into the cabin from the working room, and means to suck air from the cabin and blow the same into the working room.

In testimony whereof I affix my signature.

GASTON CHARLES ORY.