

No. 684,141.

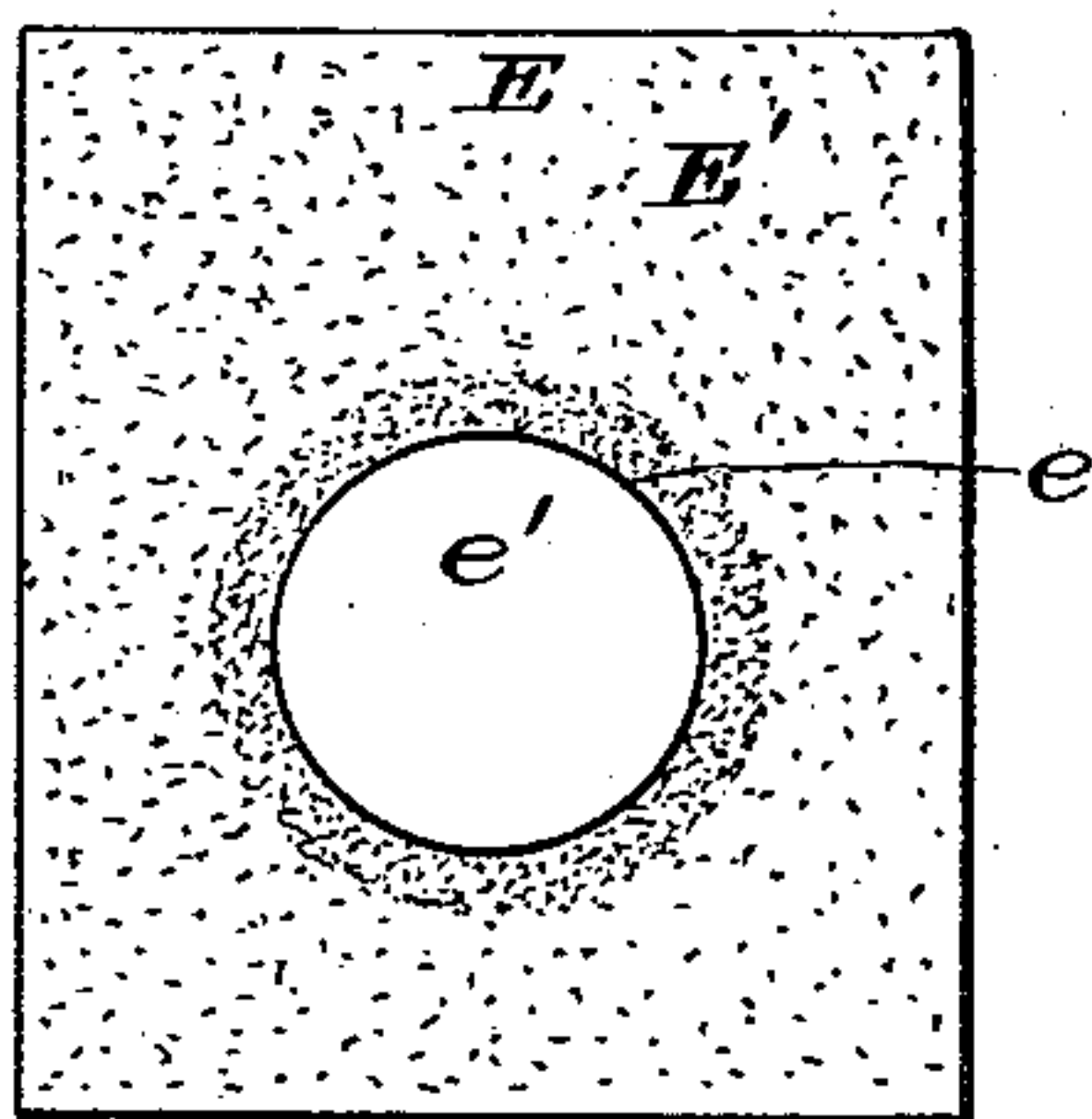
Patented Oct. 8, 1901.

J. F. WALSH.
DUST GUARD.

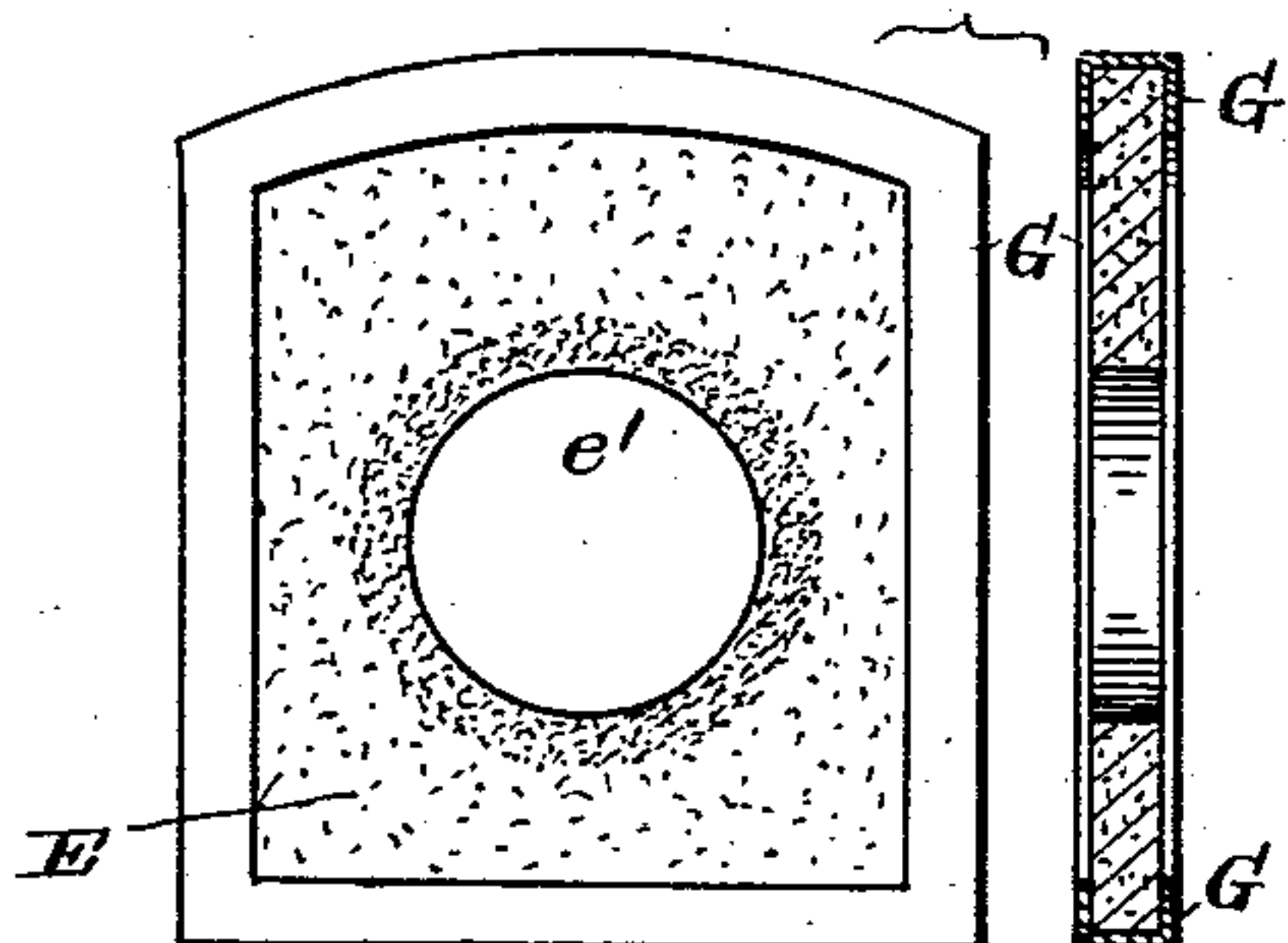
(Application filed Aug. 9, 1900.)

(No Model.)

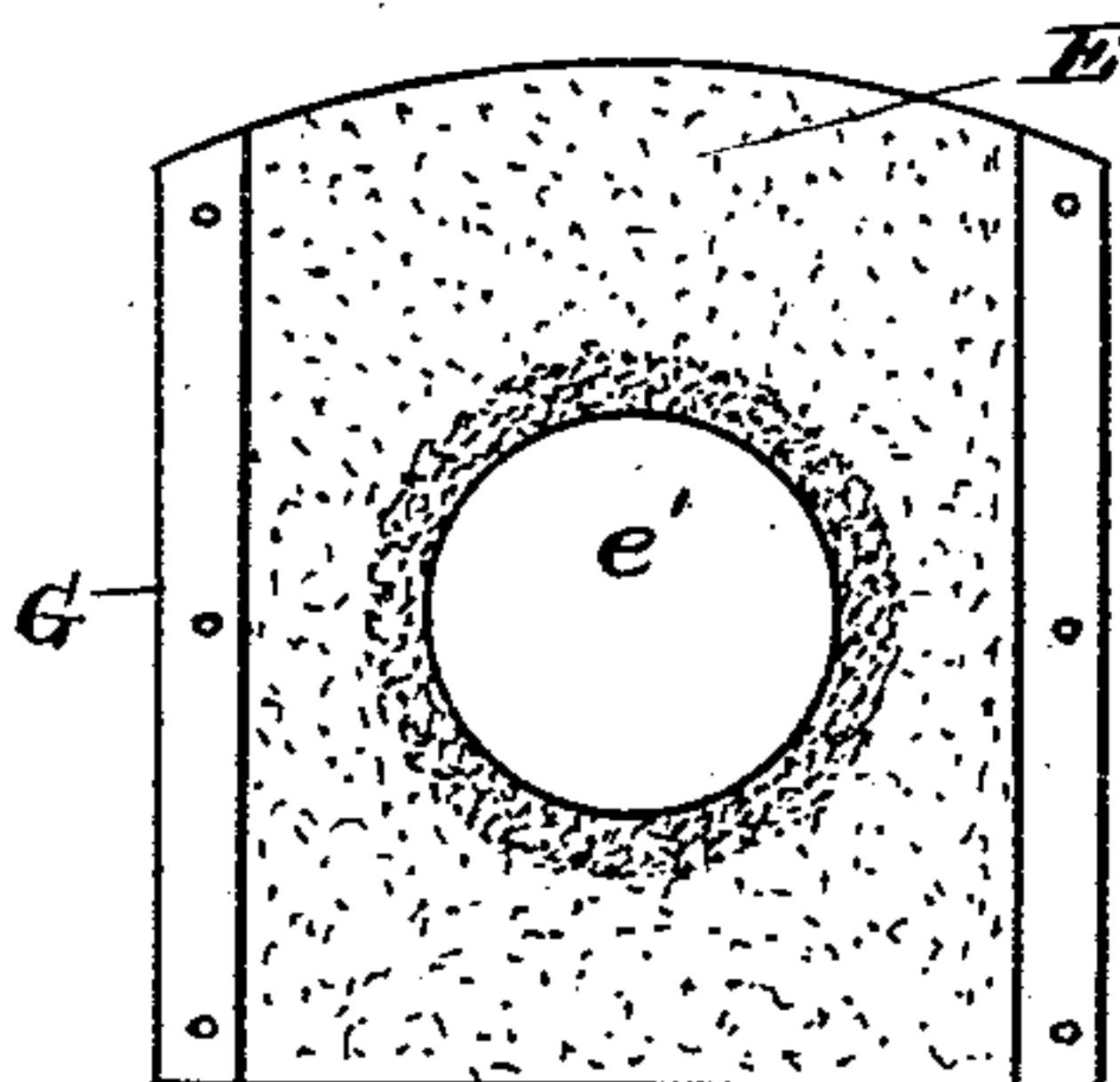
- FIG. I -



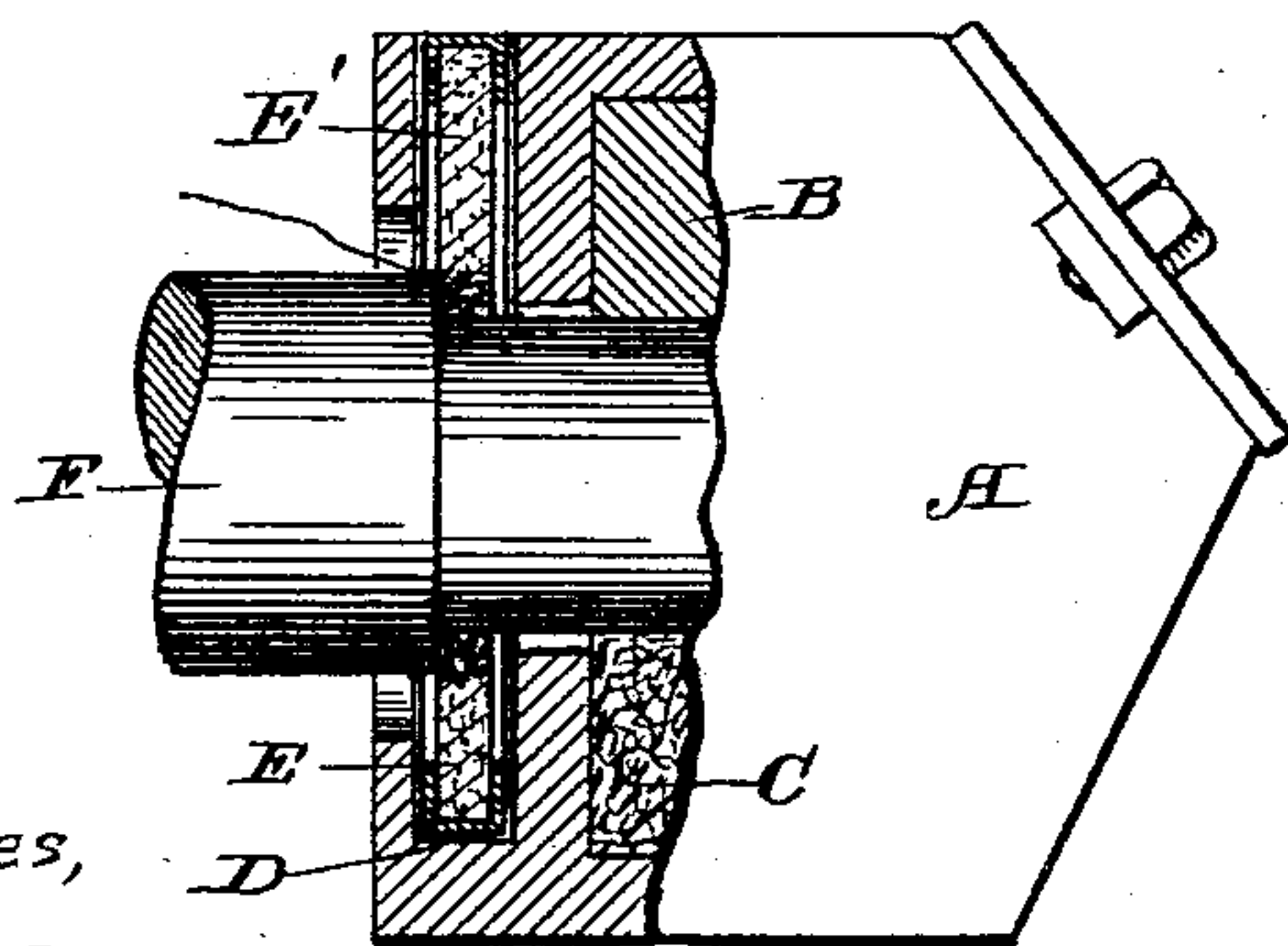
- FIG. II -



- FIG. III -



- FIG. IV -



Witnesses,

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UNITED STATES PATENT OFFICE.

JAMES F. WALSH, OF CLEVELAND, OHIO.

DUST-GUARD.

SPECIFICATION forming part of Letters Patent No. 684,141, dated October 8, 1901.

Application filed August 9, 1900. Serial No. 26,360. (No model.)

To all whom it may concern:

Be it known that I, JAMES F. WALSH, a citizen of the United States of America, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Dust-Guards for Axle-Bearings; and I hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention relates to dust-guard plates for axle-bearings, and is more especially adapted for car or locomotive axle boxes.

My invention consists in the peculiar structure or formation of the guard-plate, as will be hereinafter fully set forth and claimed.

In the drawings, Figure I is a view in elevation of a dust-guard plate, showing the extent of softening the central portion of the same. Fig. II illustrates in elevation and central section views of one means for strengthening or binding the plate. Fig. III illustrates another means for binding or strengthening the plate. Fig. IV shows the method of using my dust-guard in connection with a railway-car-truck box or bearing.

A represents a car-axle box with its necessary brass and oil-well B and C, respectively.

D represents the dust-guard pocket, which is of the ordinary construction, as is also the other details.

E represents the dust-guard plate, which I form of asbestos material pressed into shape, with the central portion *e* softer and more pliable than the outer or surrounding portion *E'*.

By my invention I obtain a guard which may be shipped and handled, being formed into shape with the predetermined orifice, and one which when it becomes foul from the accumulation of dirt and oil can be renovated or cleansed by burning out the foreign matter or dirt either in a furnace or other suitable fire, and thus be in condition to be again utilized, and a guard which is formed as rigid as required, and as it is absolutely fireproof there is no danger of burning it. Also the substance is such that while the guard is inte-

gral the central portion of the same, which surrounds the axle, can be made softer than the body portion by the operation of forming the same, which is by pressing the guard-plate into shape and forming the dies or molds in such a manner that the portion of the guard-plate which is to surround the axle will not receive as much pressure as the body portion or outlining portion of the plate, and thus the orifice *e'* can be made to embrace snugly the body of the axle *F* and form a dust-proof joint, and when the guard is forced over the axle the material will not be liable to split or break, as in case of "vulcanite fiber" or wood and as would also be the case if the guard-plate, of asbestos, were formed rigid, in which case the act of forcing it over the axle so as to get a snug fit at the bearing portion of the same would result in cracking or breaking the portion of the plate contiguous to the orifice.

My dust-guard on account of its snug fit around the axle will act as an oil-wiper, keeping the oil from spreading along the axle-body back of the box, thus saving the oil and keeping the axle clean. The inner portion *e* of the guard *E* being soft is also absorbent, and thus takes up the oil which might run along the axle-body, and the oil acts as a lubricant and dust seal between the axle and guard. The material (asbestos) is very durable as a guard and does not wear away around the axle.

In order to strengthen the guard-plate, I prefer to bind the same, either as illustrated in Figs. II and III or in any other suitable manner, by means of a strip of metal *G*, which embraces the edges of the guard, or a metal wire or strip may be embedded within the body of the plate *E* around its edges, as will be readily understood.

What I claim is—

1. A dust-guard of the type set forth the same being formed of an integral piece of fibrous fireproof material such as asbestos the outer portion of which is pressed hard and firm and having its central portion soft, substantially as set forth.

2. A dust-guard of the type set forth formed

of fireproof fibrous material such as asbestos,
the outer portion of which is formed hard and
firm and having its orifice surrounded with
softer material, the whole being formed inte-
5 gral and being surrounded or reinforced with
metal connected to the outer portion for the
purpose set forth.

Signed by me at Richmond, county of Hen-
rico, and State of Virginia, this 6th day of Au-
gust, 1900.

JAMES F. WALSH.

Witnesses:

ERWIN MORAGAK,
ISAAC HELD.