

308,516

EXAMINER.

(No Model.)

J. M. ORDWAY.

COVERING FOR STEAM PIPES.

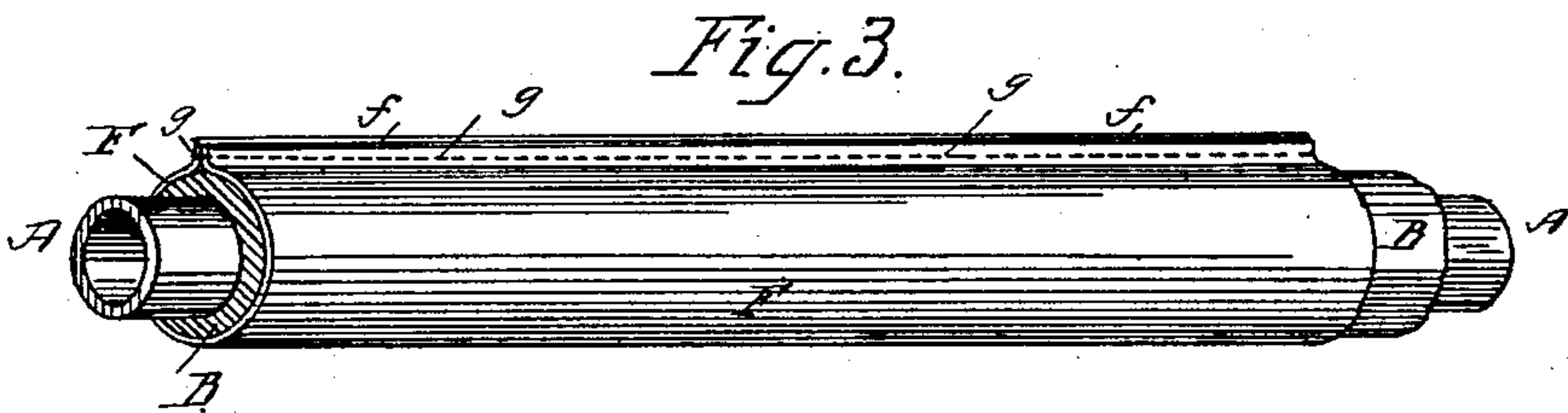
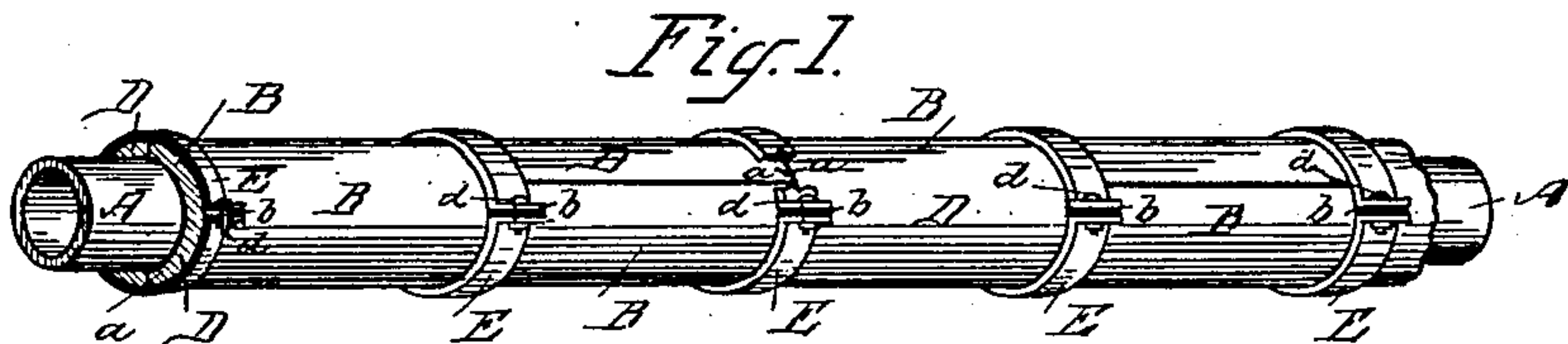
No. 308,516.

Patented Nov. 25, 1884.

The combination of charcoal and water-glass in a moist condition, for the purpose specified.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

Charcoal &
Water-glass



Witnessed
Wm. S. Bellome
Geo. W. M. Given.

John M. Ordway,
Inventor,
per Brown Bros.
Attys.

JOHN M. ORDWAY, OF BOSTON, MASSACHUSETTS.

COVERING FOR STEAM-PIPES.

SPECIFICATION forming part of Letters Patent No. 308,516, dated November 25, 1884.

Application filed October 27, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. ORDWAY, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Coverings for Steam-Pipes, &c., of which the following is a full, clear, and exact description.

This invention relates to a covering or lining for steam-pipes, safes, window or door shutters, or other articles where a non-conductor of heat or a non-inflammable material is desired to be used to prevent radiation or the conduction of heat from or to the article desired to be protected; and it consists in the application as a covering or lining to steam-pipes, safes, or window or door shutters, &c., of water-glass and charcoal, combined and arranged together and applied substantially as hereinafter fully described.

In preparing this invention for use I take the desired quantity of finely-ground charcoal, which charcoal is preferably made from white-pine wood, or pine sawdust, or spent tan-bark, or cork chips, and place it in a suitable vessel, and add to it a solution of water-glass, stirring the whole together until the two are thoroughly mixed and homogeneous, such a proportion of potash or soda water-glass being used as will, when it is mixed with the water-glass, make the whole moist, so that it will not run. In this condition it is ready to be applied to the steam-pipe, safe, or window or door shutter.

In the accompanying plate of drawings, the manner of applying this covering to a steam-pipe is illustrated, Figures 1, 3, and 4 representing in perspective a steam-pipe having this improved covering applied and secured thereto, and Fig. 2 a perspective view of a half-cylindrical section of the covering.

In the drawings, A represents a steam-pipe, and B this improved covering. As shown in Fig. 1, this improved covering is first molded, in any suitable molding-machine; in the form of half-sections D of a cylinder, as shown in Fig. 2, of the requisite thickness and of an internal diameter to closely fit the steam-pipe to which it is to be applied. The sections, when dried, are placed on the steam-pipes A, and at their adjoining ends *aa* bands or clamps E, made of metal or of any suitable material,

are placed over such edges, and secured together at their ends *b* by screws *d* or in any suitable manner. If the sections D are long, one or more clamps can be placed between the ends of the sections, if desired.

In Fig. 3 the covering B is shown as having a piece of cloth, F, or other suitable sheet material wrapped around the same, the edges *f* of the cloth being secured together by stitches *g*. In Fig. 4 the cloth material is wrapped or wound around the covering in a spiral direction, its ends being secured in any suitable manner.

In using cloth or other suitable sheet material the covering B can be first prepared in half-sections, as shown in Fig. 1; or the material can be applied to the steam-pipe while in a moist condition, and then covered with the cloth, as described.

To apply the covering to shutters or doors, it can be molded into slabs or sheets, and then secured as described for the steam-pipes above, or in any suitable manner.

In the practical use of this invention it is preferable to use a water-glass of such composition and strength that when combined and mixed with the charcoal the whole will become coherent when pressed and dried. Soda water-glass of a density corresponding to 30° Baume's hydrometer, and composed of about three parts, by weight, of silica to one part of dry oxide of sodium, is preferable, as such produces successful and good practical results; but it is not intended to limit this invention to any particular or exact proportions of the ingredients forming the water-glass, as the same may be varied to suit the absorbent powers of the charcoal used; nor is it intended to limit this invention to the particular kinds of charcoal stated, as other kinds may be used and good results obtained; but it is preferable to use the kinds above stated; nor is it intended to limit the invention to any particular amount of water-glass, as it can be varied as desired, nor to the manner herein described of securing the covering B to the pipes, &c., as the covering may be secured in any of the well-known ways and in any suitable and desirable manner.

A covering such as hereinabove described for steam-pipes or other articles and for the

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purpose stated has many advantages over other coverings for similar purposes now in use, in that it will not become shriveled, crisped, or charred, and become ignited and burn after long-continued use, as is the case where such covering is composed of fibrous or porous animal or vegetable matter, for the reason that the water-glass destroys the tendency of the material to burn.

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

The combination of charcoal and water-glass in a moist condition, for the purpose specified.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN M. ORDWAY.

Witnesses:

EDWIN W. BROWN
WM. S. BELLOWS.