(No Model.)

J. J. VOLLRATH.

STOVE PIPE.

No. 269,749. Patented Dec. 26, 1882.

Fig. 1,

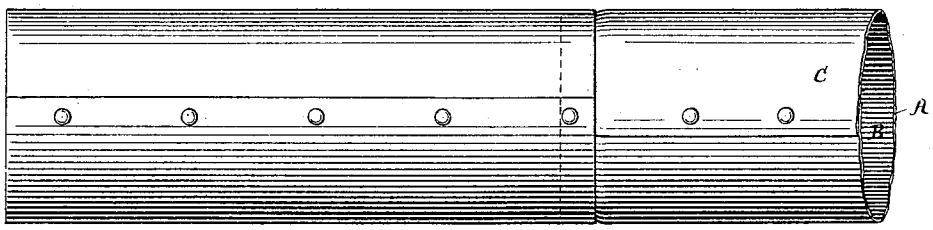
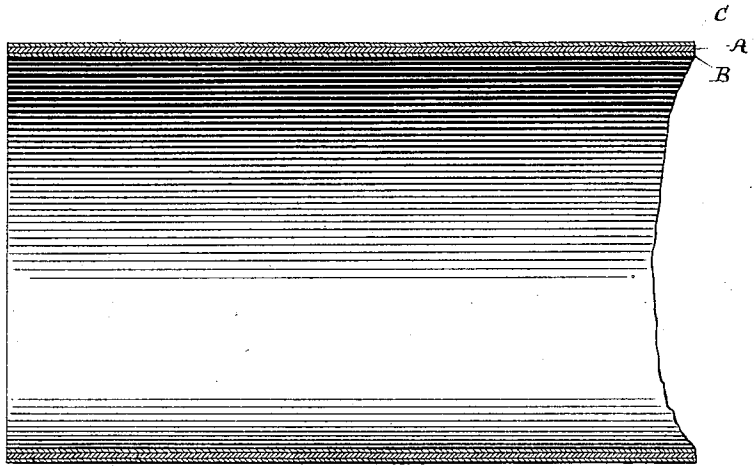


Fig. 2,



WITNESSES

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UNITED STATES PATENT OFFICE.

JACOB J. VOLLRATH, OF SHEBOYGAN, WISCONSIN.

STOVE-PIPE.

SPECIFICATION forming part of Letters Patent No. 269,749, dated December 26, 1882.

Application filed March 3, 1882. (No model.)

To all whom it may concern:

Be it known that I, JACOB J. VOLLRATH, a citizen of the United States, residing at Sheboygan, in the county of Sheboygan and State of Wisconsin, have invented certain new and useful Improvements in Stove-Pipes; and I do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

The present invention is designed to obviate the defects and disadvantages of ordinary metallic stove-pipes, which as heretofore made are easily affected by rust or destroyed by exposure, and require, in consequence thereof, to be frequently replaced. Stove-pipe requires to be blackened and polished to give it a presentable appearance, and such pipes as need no blacking are easily stained and spoiled by handling. Stove and furnace pipe in particular, the component sections of which are united by ordinary slip-joints, are liable to become so firmly incrusted at the joints as to render a separation thereof a very difficult matter. The pyroligneous acid, resulting from the combustion of the fuel, is also liable to corrode or injure the metal by coming in contact therewith.

In order to avoid the defects above stated, and to make the articles to which my invention may be applied firm and tight in their respective joints and bindings, I apply to the entire inner and outer surfaces of slip joint stove-pipes a vitreous coating of enamel composition. As applied to stove-pipes, such an enamel will give the same a permanently glossy and polished surface, which is not injuriously affected by exposure to air, heat, or smoke, thus preserving the pipe intact and completely preventing incrustation at the joints or injury of the metal by the corrosive action of pyroligneous acid.

The vitreous coating is applied to the pipes substantially as follows, viz: The pipe to be covered is coated with borax, which is burned on to make it part of the iron. The inner and outer surfaces of the pipe are then covered with a liquid enamel made of the ordinary vitrifiable material, and similar to that described in Letters Patent granted to me by the United States, dated December 6, 1881, No. 250,465, which composition is in turn firmly burned on.

The enamel coating may be of any color, as is well understood in the art of enameling metals.

By the term "slip-joint pipes," as used in the present instance, I desire to include all forms of stove-pipe joints in which one section enters another, and it will readily be understood that the "screw-joint" is embraced in said term.

In addition to the functions of the vitreous enamel as an ornamental covering and non-corrosive lining, it may be stated that the enamel serves to assist in holding the seam of the stove-pipe.

In the drawings, Figure 1 illustrates two pipe-sections united by a slip-joint. Fig. 2 is an enlarged sectional view exhibiting the inner lining and outer coating of the pipe.

The letter A designates the pipe, B the lining, and C the outer coating.

I am aware that sheet-metal vessels, hose-nozzles, pump-cylinders, water-closet bowls, and other objects have been coated with a vitreous enamel, and I make no claim to any article other than a sheet-metal slip-joint pipe which is lined and covered with a vitreous enamel and possesses the functions and advantages hereinbefore fully explained.

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

As a new article of manufacture, a sheet-metal slip-joint stove-pipe made in sections, and having its interior and exterior surfaces coated with a vitreous enamel, as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JACOB J. VOLLRATH.

Witnesses:

WM. H. SEAMAN,

FRANCIS WILLIAMS.