

J. SMITH & C. R. MESSINGER.

MODE OF DISTRIBUTING GLYCERINE THROUGH TOBACCO.

No. 172,666.

Patented Jan. 25, 1876.

Fig. 1.

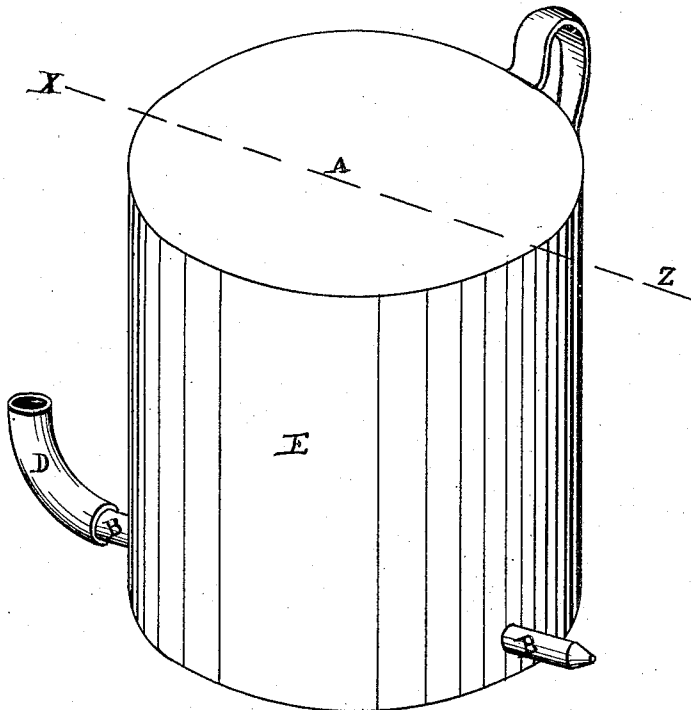
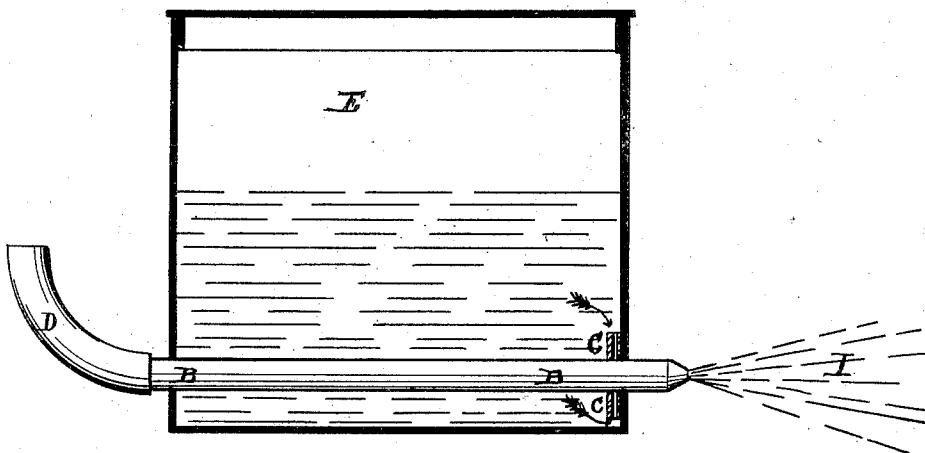


Fig. 2.



WITNESSES

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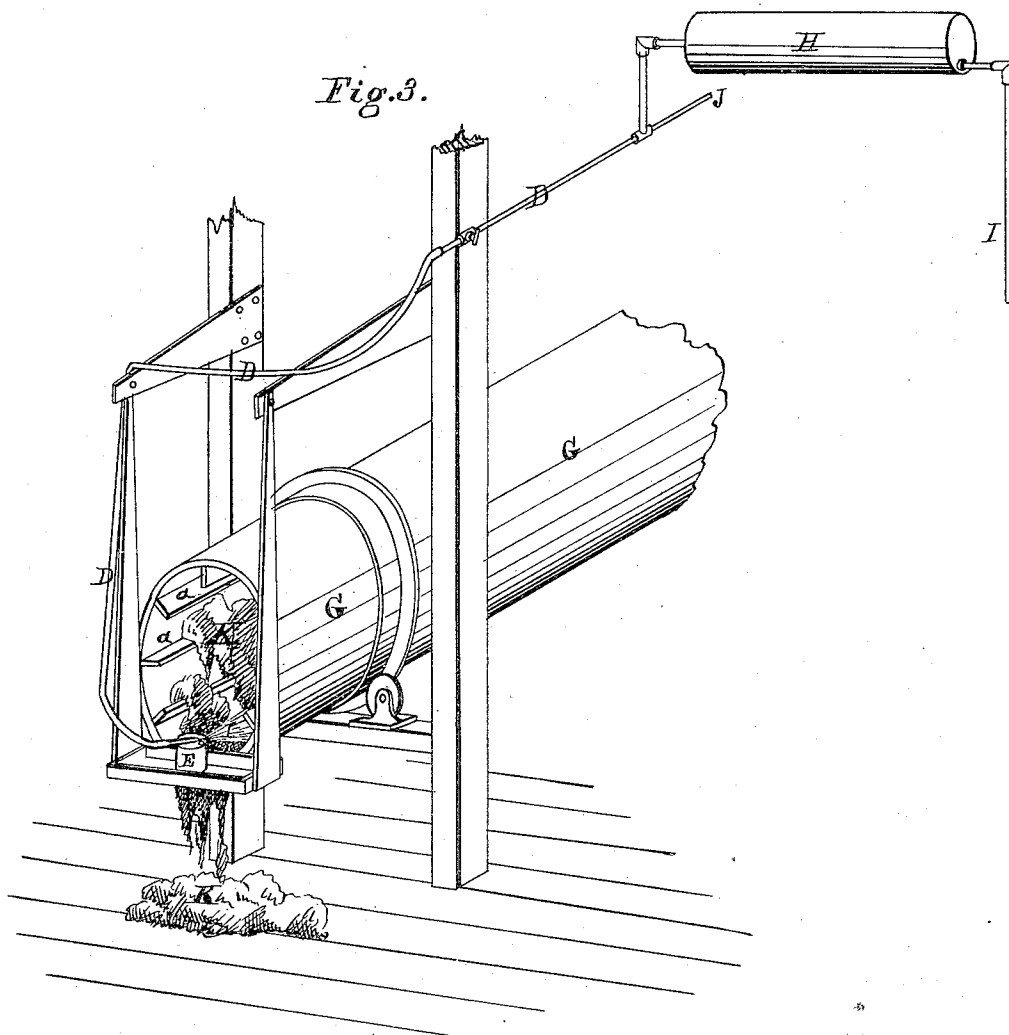
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UNITED STATES PATENT OFFICE.

JONATHAN SMITH AND CHARLES R. MESSINGER, OF TOLEDO, OHIO.

IMPROVEMENT IN MODES OF DISTRIBUTING GLYCERINE THROUGH TOBACCO.

Specification forming part of Letters Patent No. **172,666**, dated January 25, 1876; application filed November 20, 1875.

To all whom it may concern:

Be it known that we, JONATHAN SMITH and CHARLES R. MESSINGER, of Toledo, Ohio, have invented certain new and useful Improvements in Distributing Glycerine Through Fine-Cut Tobacco, of which the following is a specification:

Our object is to distribute glycerine evenly through fine-cut chewing or smoking tobacco; and our invention consists in the employment for this purpose of compressed air, which acts to spray or vaporize glycerine, and at the same time to distribute it evenly through the tobacco.

To enable others to understand our method or process, we shall proceed to describe it in connection with one simple form of apparatus that may be employed for the purpose.

We make use of a sheet-metal cylinder, G, Fig. 3, of suitable size, which revolves on rollers or wheels, and has internal spiral flanges a, extending the length of the cylinder. These flanges serve to carry the tobacco along through the cylinder, and also to lift and agitate the tobacco. In this way the "fine shorts" will be shaken out at or near the end of the cylinder, where they may be separated from the "long cut" by means of a wire-cloth of the proper mesh, which allows the finest shorts and dust to escape. The tobacco is fed in at one end of the cylinder, and is discharged at the other. At the end of the cylinder where the tobacco is discharged we have a vessel, E, filled with glycerine. In order to distribute the glycerine on the tobacco in such manner that it will not show or be in drops, we make use of highly-compressed dry air as a spraying or atomizing agent. To do this we may arrange the compressed-air nozzle over an aperture or nozzle leading to the glycerine-vessel in substantially the same way as nozzles for like purposes are arranged in the atomizers of daily use, for spraying perfumed waters and the like. Or, we may make use of an arrangement such as indicated in Figs. 1 and 2, in which E is the glycerine-vessel; B, the compressed-air nozzle leading through the vessel; D, the pipe for conducting the supply of com-

pressed air; and C, small holes or teats formed in the nozzle, and leading thereto from the glycerine-vessel, and placed in such position or at such an angle that the air will take from them the proper amount of glycerine and blow it all through the tobacco in the condition of very fine mist, having the appearance of what is commonly called dry steam.

To obtain compressed air we can make use of any good air-pump; but whatever may be the compressing agent employed, we find it very desirable and important to have a cylinder or fountain, H, which will hold a large volume of compressed air, in order that the nozzle B may be supplied through pipe D with a steady jet of air, which must be even, uniform, and without pulsation.

Glycerine, being a thick and gummy liquid, requires a heavy pressure of compressed air to spray it evenly on the tobacco. Steam will not answer, no matter what pressure may be obtained with it, because it condenses; but spraying with compressed air distributes the glycerine evenly, thoroughly, and uniformly, as before said, without reducing the consistency of the glycerine.

The spraying apparatus is placed opposite the discharge end of the cylinder, in such position that the tobacco, as it reaches that end, will be properly sprayed and moistened.

We have described one form of apparatus adapted to carry out our invention. It is manifest, however, that various forms of apparatus may be employed.

What we claim, and desire to secure by Letters Patent, is—

The method of distributing glycerine through fine-cut chewing or smoking tobacco, by the employment of compressed air, substantially in the manner set forth.

In testimony whereof we have hereunto signed our names this 18th day of November, A. D. 1875.

JONA. SMITH.
CHAS. R. MESSINGER.

Witnesses:

G. E. POMEROY, Jr.,
CHAS. T. HEWITT.