

2. Sheets. Sheet. 1.

H. J. Hale,

Tobacco Pipe.

No. 44,863.

Patented Nov. 1. 1864.

Fig. 3.

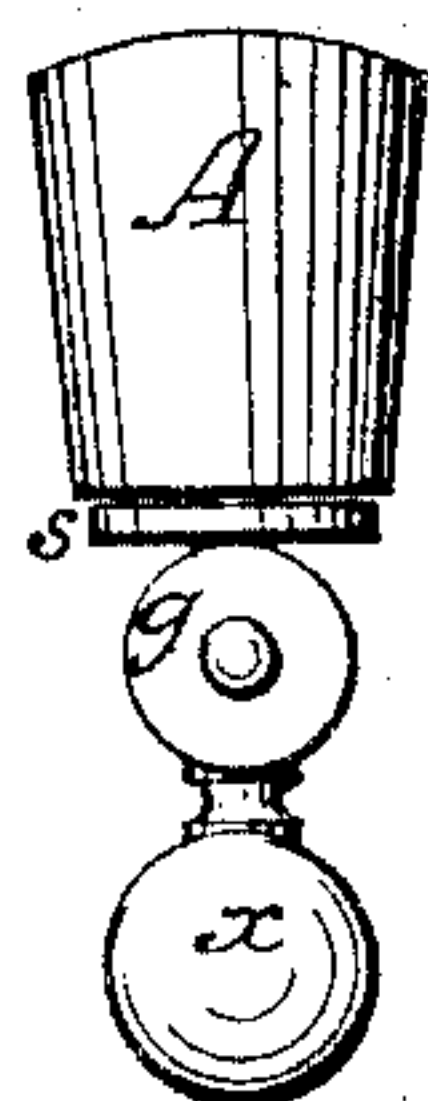


Fig. 1.

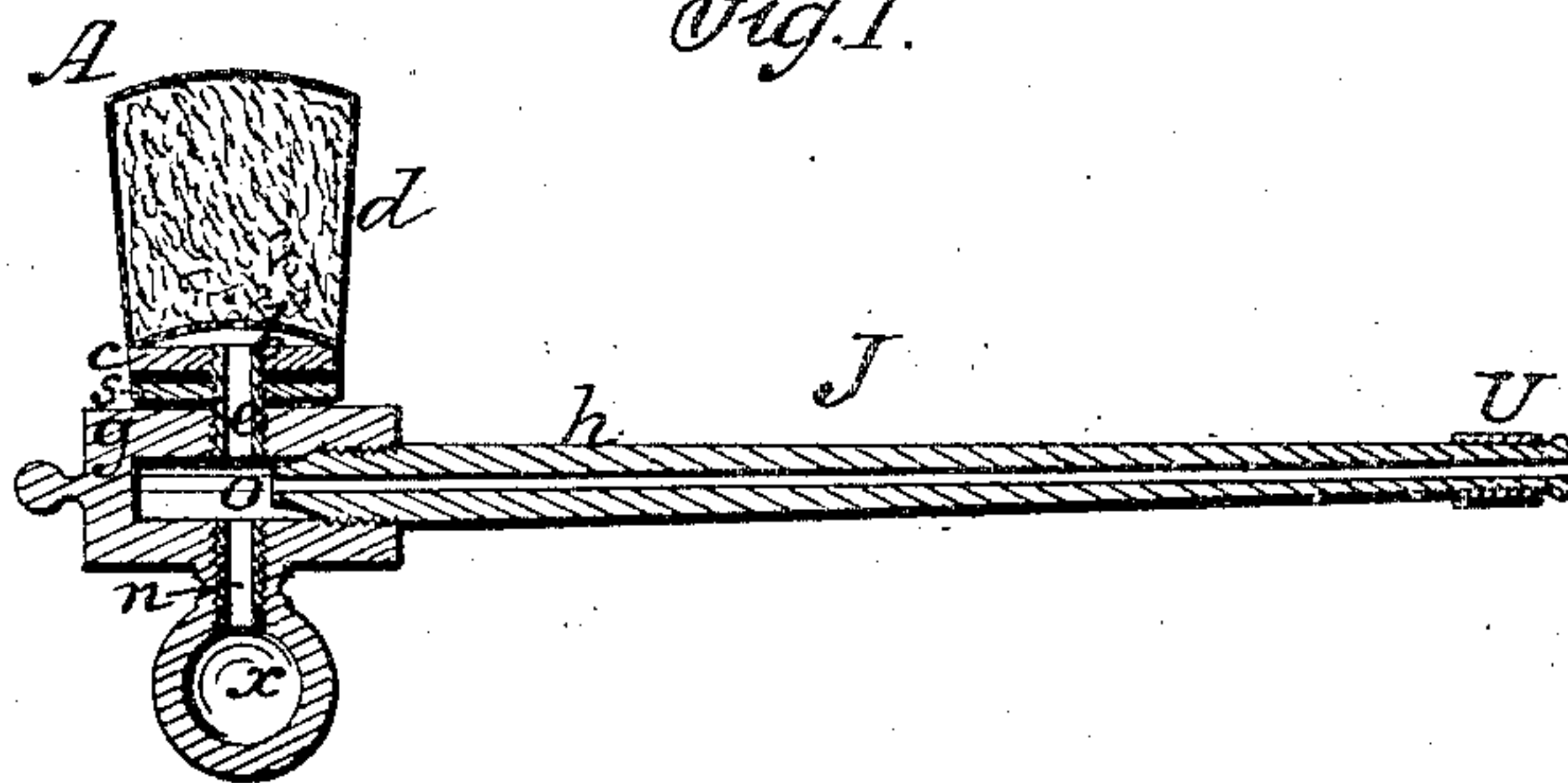
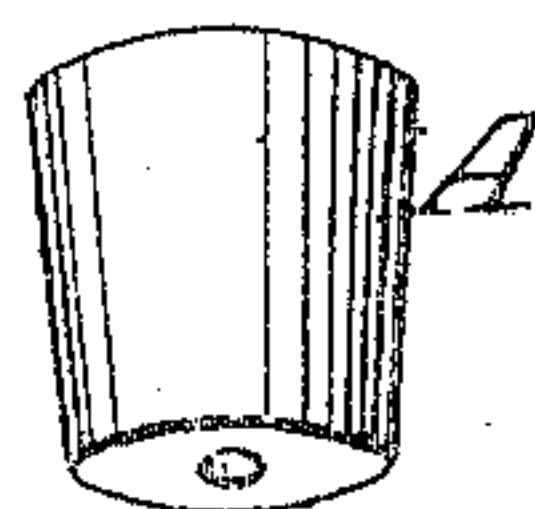


Fig. 2.



Witnesses.  
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Inventor.  
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per Munroe & Co.  
Attys.

2. Sheets, Sheet. 2.

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Fig. 5.

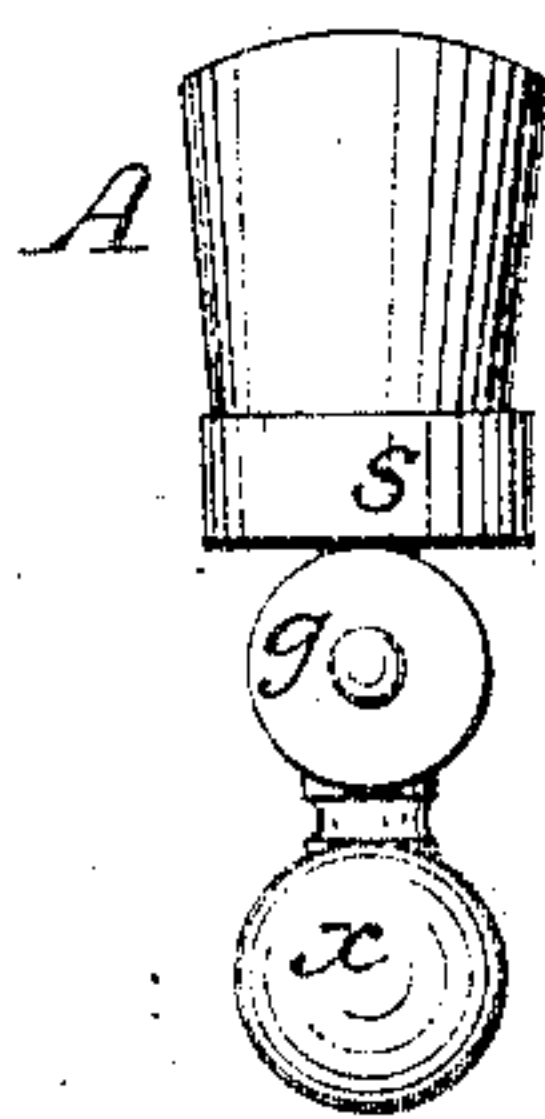


Fig. 4.

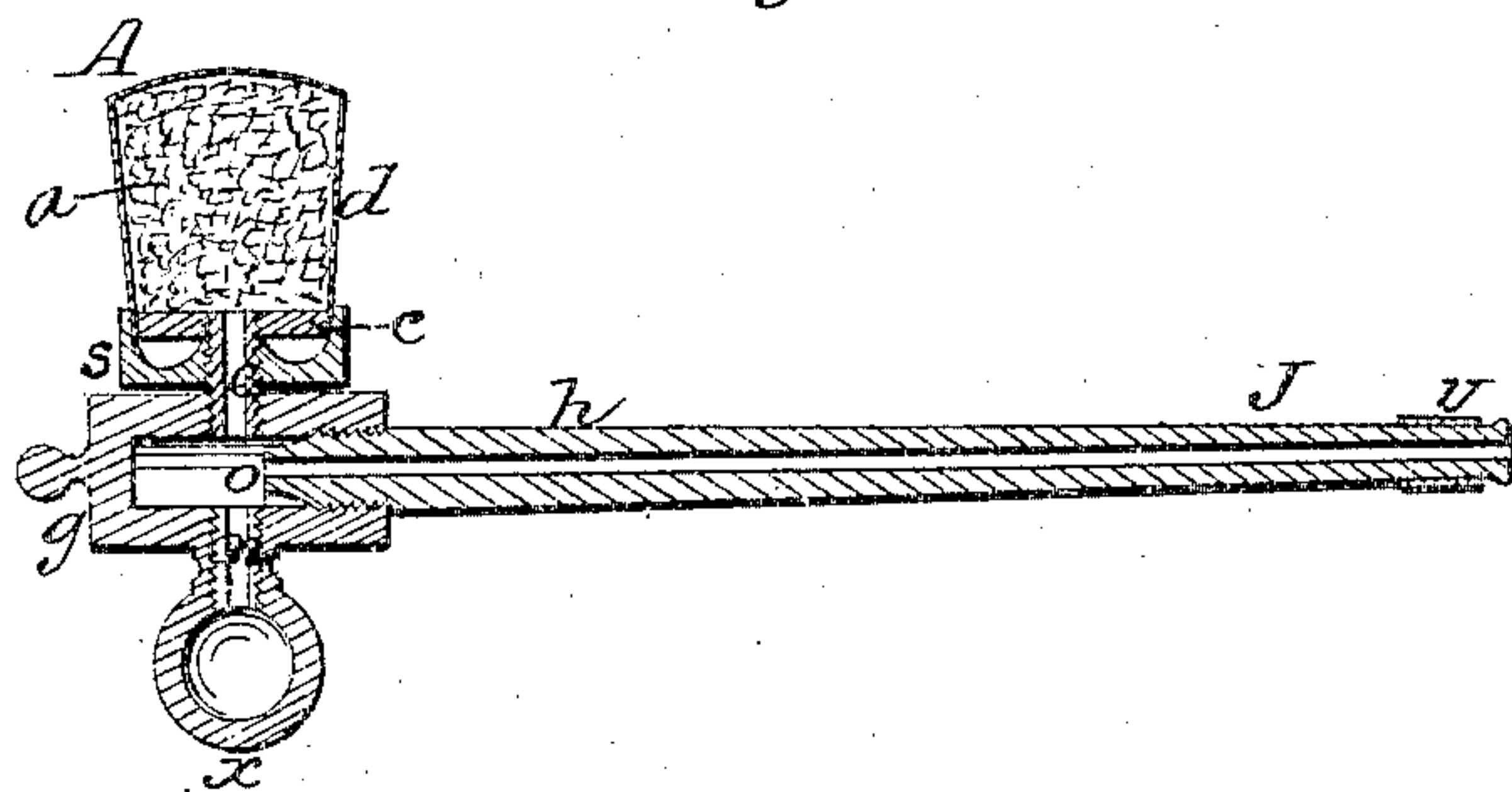
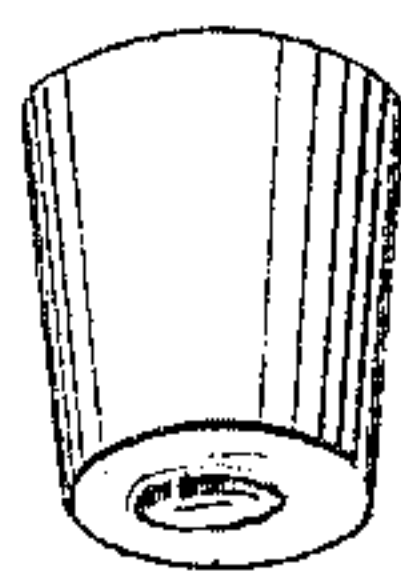


Fig. 6



Witnesses.  
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per Munn & Co.  
Attys.



# UNITED STATES PATENT OFFICE.

HOLMAN J. HALE, OF NEW YORK, N. Y.

## IMPROVED SMOKING-PIPE.

Specification forming part of Letters Patent No. 44,863, dated November 1, 1864.

*To all whom it may concern:*

Be it known that I, H. J. HALE, of the city, county, and State of New York, have invented a new and useful Improvement in Tobacco-Pipes; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 shows my improved tobacco-pipe in longitudinal section, with a tobacco-cartridge ready for smoking applied thereto. Fig. 2 is the cartridge detached. Fig. 3 is an end view of the pipe and cartridge. Fig. 4 is also a longitudinal section of the pipe and cartridge, which is given to show a modification in the form of the radiator S. Fig. 5 is an end view of the pipe and cartridge, with the radiator shown in Fig. 4. Fig. 6 represents a cartridge of the form made under the Letters Patent granted March 31, 1863, to Edward J. Mallett.

Similar letters of reference indicate like parts.

Tobacco-pipes which have bowls to contain the tobacco soon become foul and emit offensive odors. Many devices have been gotten up to overcome or obviate this defect, but without any decided success. The extensive use at the present time of the costly meerschau-pipe is owing to the (doubtful) property claimed for it of absorbing and destroying the noxious secretions which arise from the use of tobacco in a pipe. The best of the devices hitherto introduced to the public are subject to the same objections as the simplest pipe, and in all of them the bowl becomes foul, and the smoker is soon compelled to choose a fresh pipe.

J is the pipe, having a stem, *h*, whose mouth-piece has an elastic ring, U, slipped upon it. Its other end is beveled, as shown at O, and at the beginning of the bevel a screw-thread is cut upon it, which takes into a screw-thread cut in one end of the cylinder *g*, thus securing them to each other. The other end of the cylinder is closed in the pipe here shown. The upper and under sides of the cylinder have threaded holes tapped in them, the lower one to receive the upper end of a threaded tube, *n*, which serves to connect a reservoir, *x*, of any desirable shape, to the cylinder, and the

upper one to receive a threaded tube, *e*, which passes upward through and beyond the heat-radiator S, as seen in Figs. 1 and 4, so as to take hold of or screw into the bottom of a tobacco-cartridge, A.

The upper end of the tube *e* may be barbed or corrugated, or be divided longitudinally, and made so that its sides shall have a tendency to spring apart, and thereby retain its hold upon the radiator and the bottom of the cartridge, the object being to cause the sides of the tube to serve as the retainer of the radiator and the cartridge. The cartridge is made so as to have a bottom, *c*, of sufficient strength and stiffness to maintain its upright position upon the pipe without other means of attachment or support during the process of smoking. The bottom is perforated in its center to receive the tube *e*, and fit to it snugly. It is inclosed with the tobacco *a* within a capsule, *d*, which completely envelops the bottom and sides of the cartridge, and may or may not envelop its top, according to the manner of making it.

The charge of tobacco may be supported clear from the bottom *c* by a perforated curved diaphragm, *b*, of metal or other stiff material; but this is not necessary to the successful construction of the cartridge, nor to its successful use with a pipe. The cartridges may be prepared in the manner described in Letters Patent granted to Edward J. Mallett, March 31, 1863, or in any other way, and may be of any convenient size and shape, providing always that their bottoms be of sufficient strength and stiffness to serve as means of attaching them to a pipe, and holding them securely in proper position until the charge of tobacco is consumed in the process of smoking. By this mode of smoking tobacco a large portion of its residuum will be lodged upon and retained by the bottom of the cartridge, and since the bottom is thrown away after the cartridge is consumed, the smoker is relieved of the presence and consequent bad and offensive odor, in his pipe of that portion of the residuum.

The pipe may be made with a removable cover at its outer end, attached by a screw or other joint, and the bulb *x* may then be dispensed with, since its office is merely to form a receptacle which shall relieve the pipe of the saliva and the products of any condensation which may take place in it, and enable the



smoker to cleanse the pipe from such accumulations.

The inner end of the stem *h* is cut away at *Q*, so that its sides and end within the cylinder shall be clear from the sides of the cylinder, whereby a space is left between them. The object of this construction is to create a space around the stem in which liquids that collect at that end of the cylinder may be retained under the stem, so as not to be drawn therein with the draft of smoke and air.

*S* is a radiator, whose office is to intercept and disperse the heat arising from the combustion of the cartridge, and thereby protect the cylinder *g* and the joint made in it by the tube *n*. The heat created in the act of smoking will, without such a device, cause the tube *e*, which will usually be made of metal, to expand in the side of the cylinder. When it contracts on cooling, it falls away from the sides of the hole in which it is inserted, and the tube becomes loose in its joint and the pipe is unfit for use. The radiator prevents this result in my pipe. It may be made of any form. In Figs. 1 and 2 it has the form of a disk set tangentially to the cylinder, and in Figs. 4 and 5 of a shallow cup. It may be

made of any material, a good conductor of heat being preferred. The part of the tube below it and the cylinder itself will be protected by it from the radiated heat of the burning cartridge, and a great part of the heat communicated to the upper part of the tube will be conducted off by the radiator *S*. The radiator is removable, so as to enable the smoker to use different-shaped radiators upon his pipe. If the form shown in Figs. 4 and 5 is chosen, the smoker will be able to use the tobacco-cartridge of Mallett's, (shown in Fig. 6,) as well as the improved cartridge with a holdfast bottom, above described.

I claim as new and desire to secure by Letters Patent—

1. The radiator *S*, constructed and applied to a tobacco-pipe, substantially as and for the purpose above described.
2. The combination of the radiator with the smoke-tube *e* of the pipe, substantially as above described.

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Witnesses:

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