(No Model.)

J. CONNER & G. MATTHEWS, Jr.

SAFETY CAP FOR GAS GENERATORS FOR SODA WATER MACHINES.

No. 328,008. Patented Oct. 13, 1885.

Fig: 1.

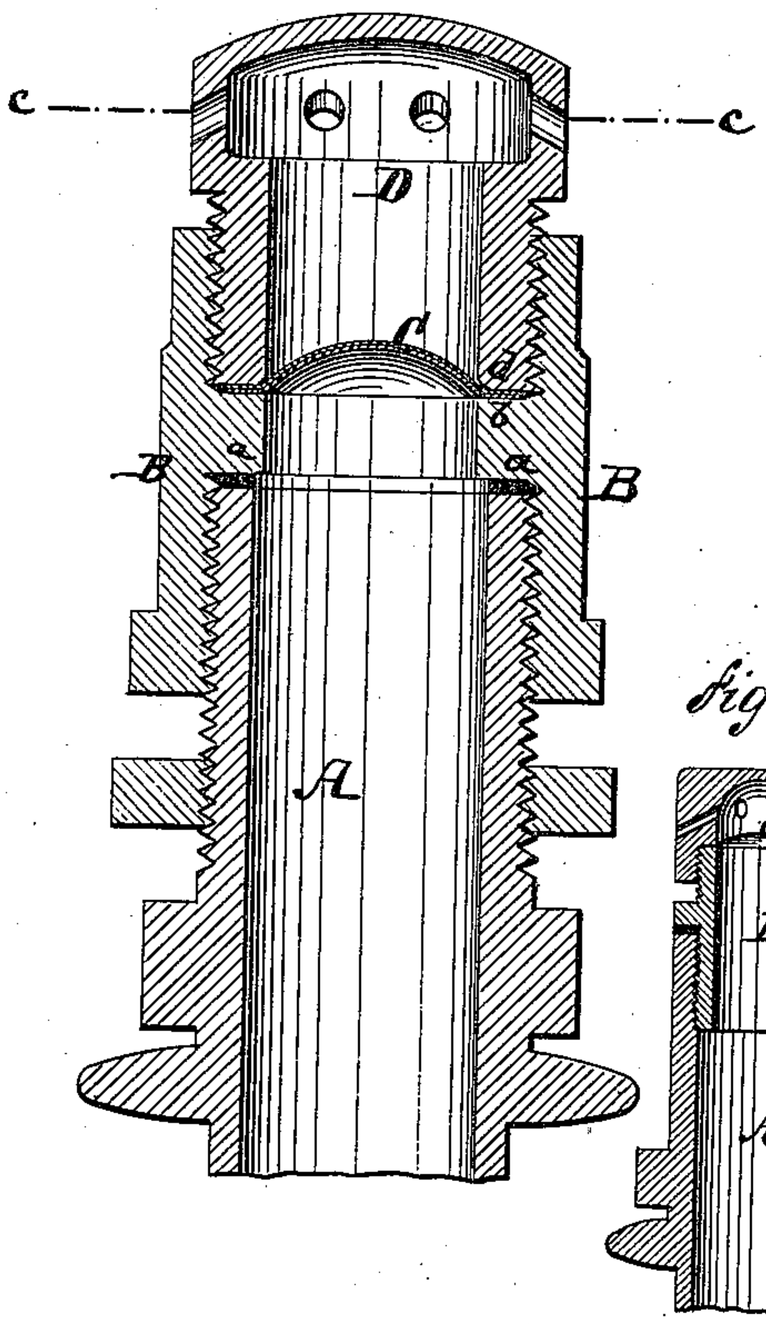


Fig: 2.

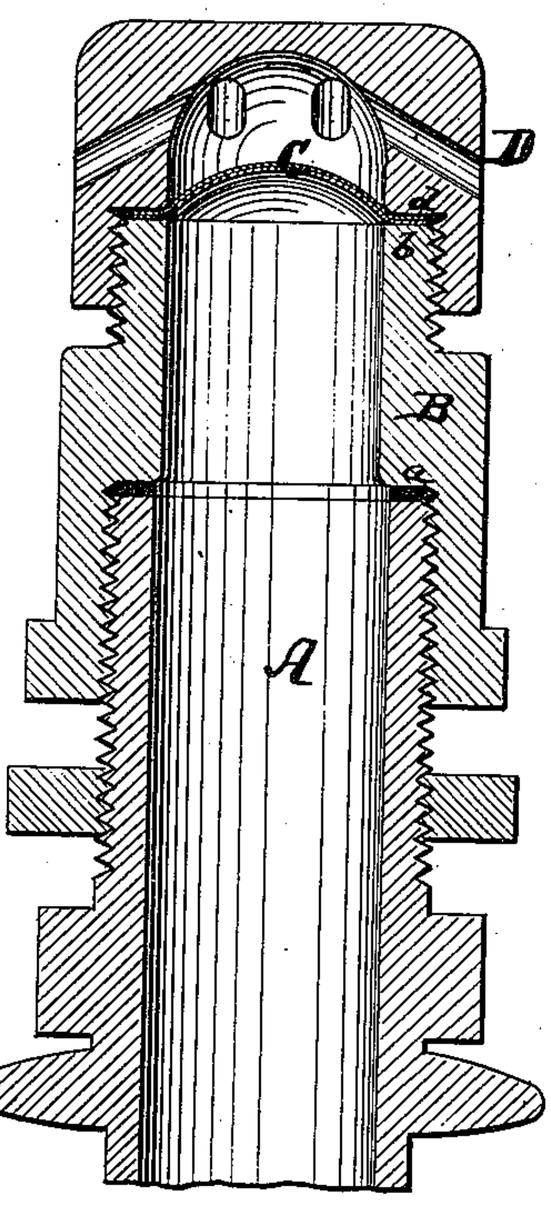
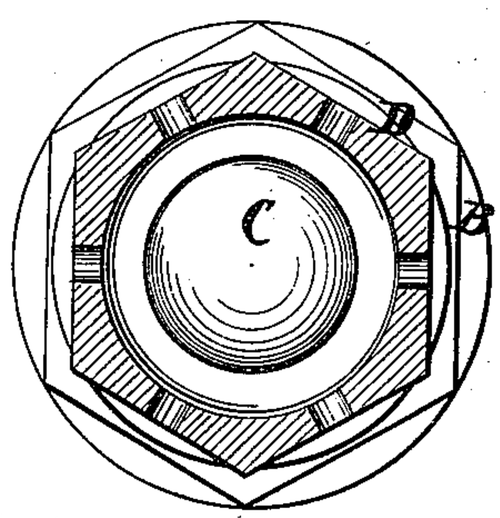


Fig: 4.

Fig: 3.



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UNITED STATES PATENT OFFICE.

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SAFETY-CAP FOR GAS-GENERATORS FOR SODA-WATER MACHINES.

SPECIFICATION forming part of Letters Patent No. 328,008, dated October 13, 1885.

Application filed March 30, 1885. Serial No. 160,545. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH CONNER and GEORGE MATTHEWS, Jr., both residents of New York city, in the county and State of New York, have jointly invented an Improved Cap for Soda-Water Generators and other Strong Vessels, of which the following is a full, clear, and exact description, reference being made to the accompanying drawings, in which—

Figure 1 represents a sectional elevation of our improved cap. Fig. 2 is a sectional elevation of a modification of the same. Fig. 3 is a horizontal section on the plane of the line *c c*, Fig. 1. Fig. 4 is a sectional view of another modification of the same.

This invention relates to improvements on the cap which is described and shown in Letters Patent No. 138,171, granted to John Matthews April 22, 1873. In that patent the disks were held in the cap by a nut that was screwed into the cap from below, said nut also resting on the edge of the bung-piece, so as to constitute a sort of washer. One difficulty with that structure was that it would at times happen that the nut would become cemented fast to the upper edge of the bung-piece, so that in unscrewing the cap, whenever that was done, the nut would also, to a greater or less extent, be screwed down in the cap, thereby loosening the disks, and unless this was particularly noticed this loosening of the disks would, when afterward the cap was reapplied, cause the gas to escape from the generator and spoil the charge.

Our invention seeks to overcome this difficulty; and it consists, principally, as compared with the former patent, in extending the nut that was shown in the other patent downward, and making it a coupling for joining the cap to the bung-piece, instead of joining the cap directly to the bung-piece, and having the nut as a separate piece therein.

In the drawings, the letter A represents the bung-piece, or other tubular projection, of a generator or analogous strong vessel. To the upper or outer part of this bung-piece is attached a tubular coupling-piece, B, which has a shoulder, *a*, that bears on the upper end of the bung-piece, a suitable packing being interposed. The coupling-piece B also has an upper face, *b*, on which the disks C, which are described in the former patent, rest.

D is the cap, which is screwed into or around the coupling-piece B, as in Figs. 1 and 2, and which, by its lower face, *d*, rests on the disks C, thereby clamping them against the coupling-piece. The cap D is perforated on the upper portion to allow the gas to escape, should, by undue pressure in the generator, the disks C have been burst. The cap D should be of polygonal form, as shown in Fig. 3, so that it can be turned by applying a proper wrench to it, and the coupling-piece B should also have a polygonal exterior, so that a wrench may be applied to it when it is desired to unfasten it from the bung-piece.

It will be seen that if the coupling-piece B is unscrewed from the bung-piece the relative positions of the parts B C D will not be interfered with, so that if afterward the coupling-piece B is reapplied to the bung the parts C D will be in their proper position without requiring special attention. If, however, the disks are to be changed or inspected the cap D is unscrewed, thereby immediately laying them open to inspection or removal.

It is not necessary that the coupling-piece B should be threaded on the inner side for connection with the bung-piece, as in Figs. 1 and 2. It may be threaded on the outer side, as in Fig. 4, or otherwise adapted to connect with the bung-piece.

We claim—

The combination of the perforated cap D, having contact-face *d*, with the disks C, coupling-piece B, said coupling-piece having contact-faces *a b*, and with the bung-piece A, to which said coupling-piece is adapted to be attached, as described.

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Witnesses:
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