

No. 820,072.

PATENTED MAY 8, 1906.

W. H. SMITH.

METHOD FOR ATTACHING EXTRACTORS TO CORKS.

APPLICATION FILED MAR. 5, 1906.

FIG 3

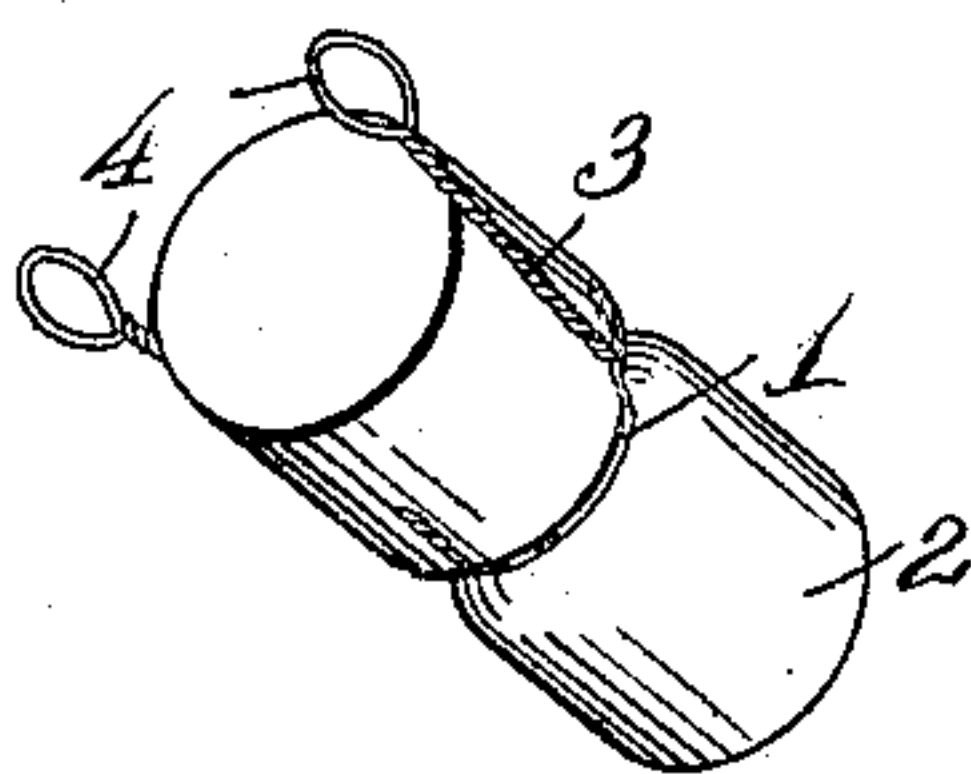


FIG 2

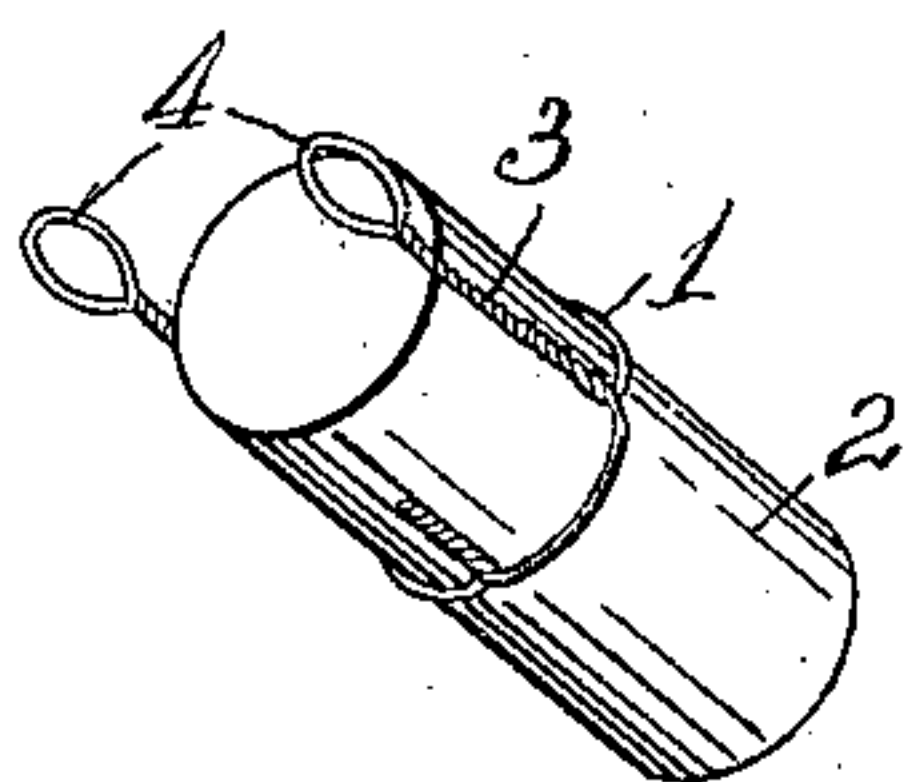


FIG 4

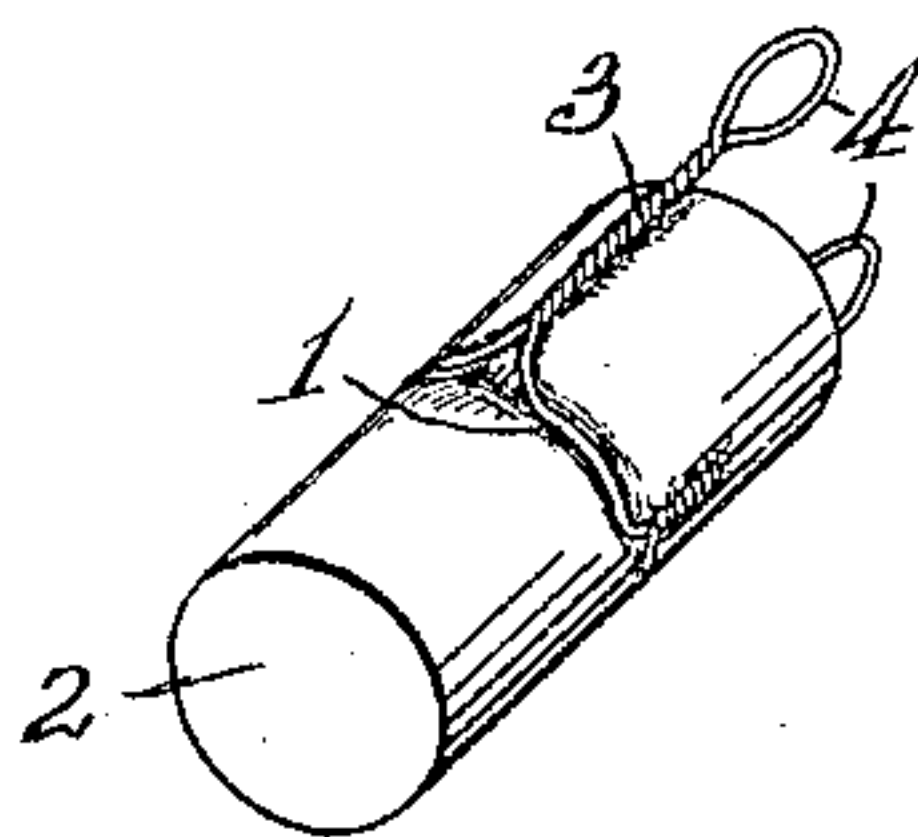
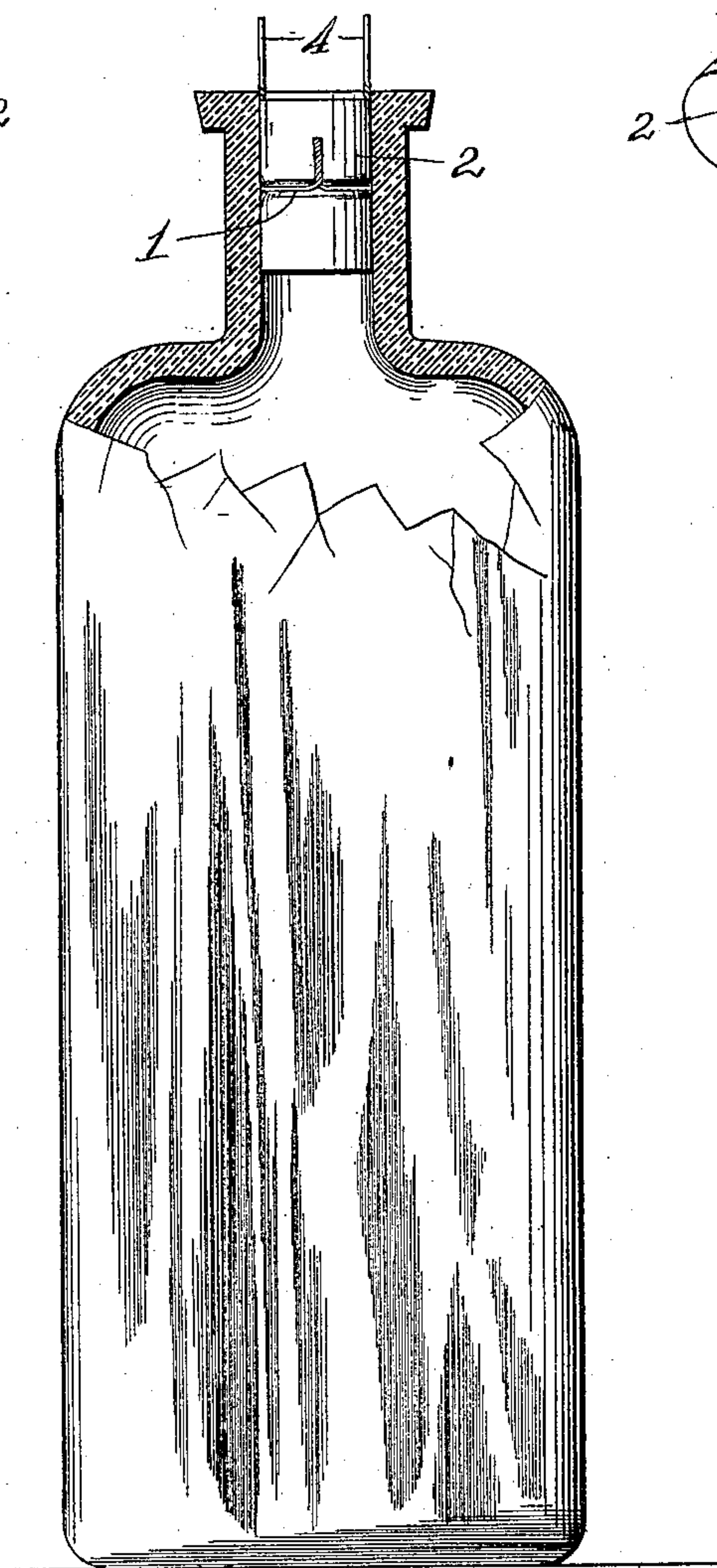


FIG 1



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METHOD FOR ATTACHING EXTRACTORS TO CORKS.

No. 820,072.

Specification of Letters Patent.

Patented May 8, 1906.

Application filed March 5, 1906. Serial No. 304,405.

To all whom it may concern:

Be it known that I, WILLIAM HOWARD SMITH, a citizen of the United States, residing at Morton, in the county of Delaware and State of Pennsylvania, have invented certain new and useful Improvements in Methods for Attaching Extractors to Corks, of which the following is a specification.

My invention relates to an improved method of attaching extractors to corks; and it consists in the steps and processes herein described and claimed.

An object of my invention is to provide a convenient method for satisfactorily attaching extractors to corks whereby all danger of weakening or tearing the cork will be obviated.

A further object of my invention is to provide a method of firmly attaching extractors to corks in such manner as to prevent slipping or loosening of the extractor.

Referring to the accompanying drawings, forming a part of this application, and in which similar reference symbols indicate corresponding parts in the several views, Figure 1 is a side elevation, partly in section, illustrating a bottle having an extractor attached to its cork by my improved process. Fig. 2 is a perspective view of a cork and extractor, illustrating the first step of my process, in which the extractor is firmly secured to the cork. Fig. 3 is a perspective view illustrating the second step of my process, in which the cork has been subjected to moist heat for expanding it; and Fig. 4 is a perspective view illustrating the final step of my process, in which the expanded cork has been compressed.

In the operation of my invention the extractor is firmly looped at 1 about a commercial cork 2 when in its usual dry condition, the cork being preferably of greater diameter than the hole into which it is to be fitted. The cork in its dry condition permits the wire to be sunk therein, without injury to the cork, sufficiently to bring the loop 1 to its required final size, and it will be noted that the wire composing the extractor is twisted at 3 to positively hold the loop 1 from enlargement during expansion of the cork in a subsequent step of my process, and such twisted portions 3 constitute attachments to the loop and are provided with eyes 4 at their upper end for convenient engagement in removing the cork. The cork with the extractor thus firmly looped about its periphery is then sub-

jected to the action of suitable moist heat, such as hot water or vapor, for the purpose of expanding it. While thus subjected to moist heat the cork gradually expands and bulges beyond the extractor-loop 1, as shown in Fig. 3, and I have discovered that such method of expansion tends to equalize the pressure of the loop 1 at all points in the cork's periphery and enables the loop 1 to be deeply sunk into the cork without danger of weakening or tearing the latter. The expanded cork is finally compressed sufficiently to permit its entrance into the neck of the bottle, and during such compression the attachments 3 are pressed into the periphery of the cork, so as not to interfere with the latter's fit.

The above process provides an improved method for very securely attaching extractors without weakening the cork, thus obviating all danger of tearing the cork in use.

If desired, a cork of tapering form may be employed. In such case the wire loop 1, being positioned toward the smaller end of the tapered cork, will be less deeply sunk into the cork during the operation of my invention.

Under certain conditions I have found it advantageous to select a cork of slightly-less diameter than that of the opening in which it is to be finally fitted, and such cork is then expanded in the manner above described after the extractor has been firmly looped about its periphery. The expanded cork is finally compressed to fit the neck of the bottle, thereby leaving it of a slightly-greater diameter than when in its initial dry state.

I have described above the preferred steps of my improved method; but obviously changes could be made within the spirit and scope of my invention.

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

1. The method of attaching extractors to corks, which consists in securing the extractor firmly to the cork, subjecting the cork to moist heat for expanding it, and compressing the expanded cork, substantially as described.

2. The method of attaching extractors to corks, which consists in securing the extractor firmly to the cork, subjecting the cork to the action of hot water for expanding it, and compressing the expanded cork, substantially as described.

3. The method of attaching extractors to

corks, which consists in securely looping the
extractor about the periphery of the cork,
subjecting the cork to moist heat for expand-
ing it, and compressing the expanded cork,
5 substantially as described.

4. The method of attaching extractors to
corks, which consists in securely looping the
extractor about the periphery of the cork,
subjecting the cork to moist heat for expand-

ing it, and compressing the expanded cork to
a diameter slightly greater than that of its
initial condition, substantially as described.

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

WILLIAM HOWARD SMITH.

Witnesses:

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MAY J. SMITH.