

No. 644,172.

Patented Feb. 27, 1900.

S. W. HARVEY.

METHOD OF TREATING CORK FOR PACKING.

(Application filed Mar. 18, 1899.)

(No Model.)

Fig. 1.

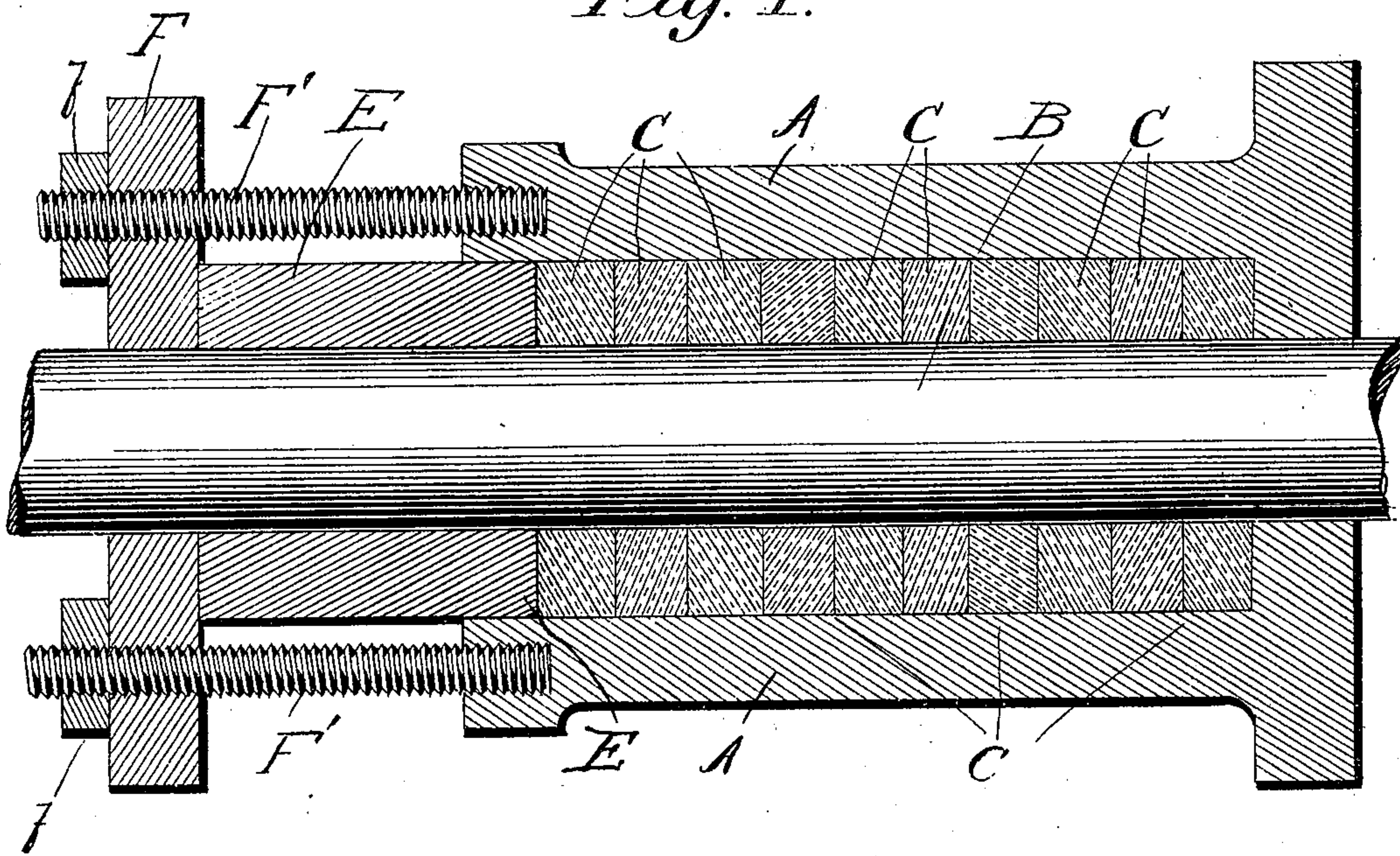
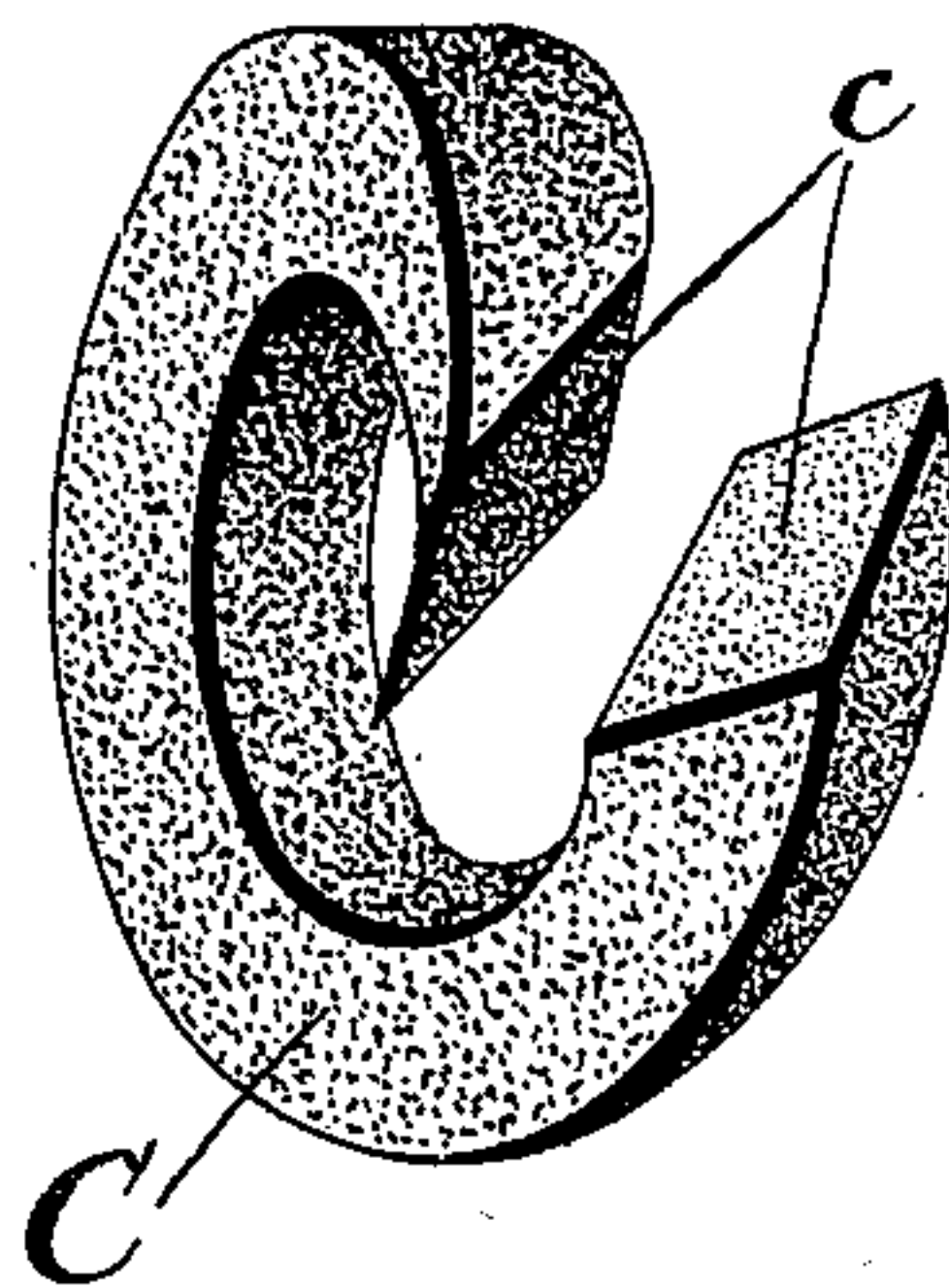


Fig. 2.



Witnesses
L. C. Mills,
John Chalmers Mills

Inventor
Samuel W. Harvey,
By *McMurry & Fisher*
Attorneys

UNITED STATES PATENT OFFICE.

SAMUEL W. HARVEY, OF DUBUQUE, IOWA, ASSIGNOR OF ONE-HALF TO
E. G. IMHOFF.

METHOD OF TREATING CORK FOR PACKING.

SPECIFICATION forming part of Letters Patent No. 644,172, dated February 27, 1900.

Application filed March 18, 1899. Serial No. 709,684. (No specimens.)

To all whom it may concern:

Be it known that I, SAMUEL W. HARVEY, a citizen of the United States, residing at Dubuque, in the county of Dubuque and State of Iowa, have invented certain new and useful Improvements in Methods of Treating Cork for Packing; 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.

My invention relates to improvements in methods of treating cork to prepare the same for use, as in packing; and it consists in the process of treatment hereinafter described and claimed.

Referring to the accompanying drawings, Figure 1 shows a central longitudinal section through a stuffing-box fitted with my improved packing-ring, and Fig. 2 is a perspective view of this packing-ring.

A represents the stuffing-box. B represents the shaft or rod passing therethrough.

C represents the rings of prepared cork fitted within the stuffing-box surrounding the shaft or rod B. These rings of cork C are split diagonally, as at *c*, to pass over the shaft or rod B, fitting them to their position, and these rings of cork are arranged in groups of two or more such rings adjacent to each other, as shown in Fig. 1.

E represents an annular sleeve which is fitted over the shaft or rod B, outside of the stuffing-box A, and extends slightly within the outer end of the stuffing-box.

F represents a plate or cross-head fitted upon the shaft or rod B and provided with screw-threaded openings therethrough for the engagement of screws *F'*, which screws also engage the stuffing-box A, which screws are connected to the end of the stuffing-box A and are provided with nuts *f*, by means of which the said plate or cross-head F may be forced toward the end of the stuffing-box, causing the sleeve E, adjacent thereto, to exert a pressure upon the packing-rings within the stuffing-box. This pressure, which is imparted to all the rings throughout the series, causes the cork packing-rings C to expand diametrically, while they are flattened somewhat axially, and thus to bear closely upon the wall of the stuffing-box and upon the surface of the shaft or rod B.

The cork in its raw state is soaked for ten

hours in a solution made up of gelatin, four parts; warm water, five parts, and bichromate of ammonium, one part. After thus soaking the cork is then exposed to a strong sunlight or to a heat of about 80° Fahrenheit. The cork so treated is cut into rings, such as C, as hereinbefore described, and is applied as a packing in the manner shown and described with reference to Fig. 1 of the drawings.

I do not limit myself to the exact proportions of the ingredients used in treating the cork, nor do I wish to limit myself to the exact length of time that the same is exposed to the various steps of the process, as it is obvious that these may be varied within considerable limitations without departing from the spirit of my invention.

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

1. The method of treating cork for packing purposes, which consists in subjecting the same to the action of a solution composed of gelatin, water and bichromate of ammonium, and then drying the same, substantially as described.

2. The herein-described method of treating cork for packing purposes, which consists in subjecting the same to the action of a solution composed of gelatin, warm water and bichromate of ammonium in approximately the proportions stated and then drying the same, substantially as described.

3. The herein-described method of treating cork for packing purposes, which consists in subjecting the same to the action of a solution composed of gelatin, water and bichromate of ammonium, and then drying the same under the action of heat at about 80° Fahrenheit, substantially as described.

4. The herein-described method of treating cork, which consists in subjecting it to the action of a solution composed of gelatin, water and bichromate of ammonium, until saturated with such solution and then drying the same under the action of heat, substantially as described.

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

SAMUEL W. HARVEY.

Witnesses:

GORDON F. MITCHELL,
W. W. FUTRELL.