F. W. STOCKTON.

METHOD FOR PRESERVING TENNIS BALLS OR OTHER OBJECTS CONTAINING FLUID UNDER PRESSURE.

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1,207,814. Patented Dec. 12, 1916.

Fig. 1.

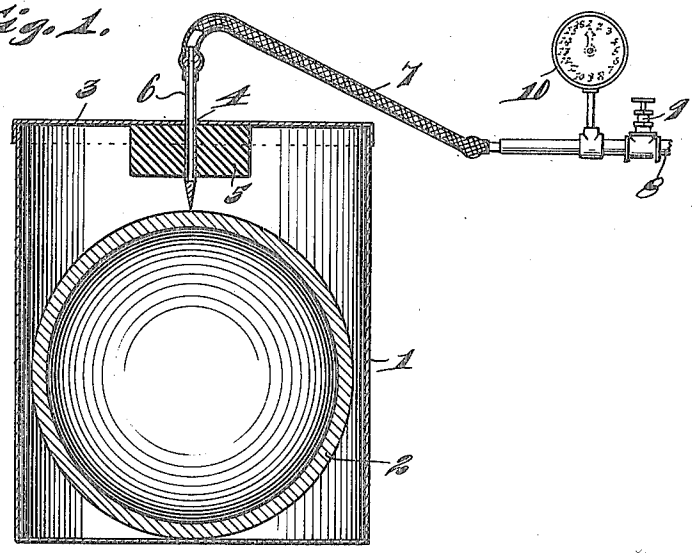
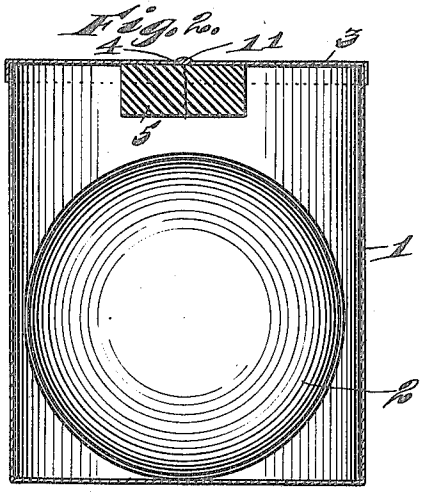


Fig. 2.



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UNITED STATES PATENT OFFICE.

FRANK W. STOCKTON, OF CHICAGO, ILLINOIS.

METHOD FOR PRESERVING TENNIS-BALLS OR OTHER OBJECTS CONTAINING FLUID UNDER PRESSURE.

1,207,814. Specification of Letters Patent. Patented Dec. 12, 1916.

Original application filed March 6, 1915, Serial No. 12,653. Divided and this application filed August 14, 1915. Serial No. 45,582.

To all whom it may concern:

Be it known that I, FRANK W. STOCKTON, a citizen of the United States, and a resident of the city of Chicago, county of Cook, and State of Illinois, have invented a certain new and useful Method for Preserving Tennis-Balls or other Objects Containing Fluid Under Pressure, of which the following is a specification.

This invention relates to a new and useful method of preserving a state of fluid pressure in tennis balls or other objects containing fluid under pressure, the present application being a division of my pending application, Serial No. 12,653, filed March 6, 1915, for method and apparatus for preserving tennis balls or other balls.

The object of my invention is the production of a method of the character and for the purpose mentioned whereby the pressure in a tennis ball or other object may be preserved notwithstanding that the object may be unused or stored away for a great length of time.

A further object is the production of a method as mentioned through the medium of which the internal pressure in a tennis ball or other object may be preserved at a low cost.

Other objects will appear hereinafter.

With these objects in view, the invention consists in the method hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawing forming a part of this specification, and in which,

Figure 1 is a partially sectional view illustrating the application of the method embodying the invention, and Fig. 2 is a central section through a receptacle containing a ball, the same having been sealed through the method constituting the subject matter of this application.

One form of the apparatus used in the working of my method comprises a receptacle 1 in the form of a sheet metal can which is adapted to accommodate the tennis ball or other object 2 containing fluid under pressure which it is desired to preserve in the receptacle 1. The upper end of receptacle 1 is open so as to permit of insertion or removal of the ball 2. In the preserving process, the cover 3 is placed over the upper end of the receptacle after the ball has been placed therein and the edges of said cover hermetically sealed to prevent any leakage.

The cover 3 is provided centrally with a small opening 4. Secured to the under side of the cover, below the opening 4 is a block 5 of rubber or other suitable resilient material.

The method contemplates the introduction of fluid into receptacle 1 under the same pressure as that of the fluid contained in the ball 2, and to this end a tubular needle 6 is employed which is connected at its rearward end by means of a flexible tube 7 with the supply pipe 8 which leads to any suitable form of compressor or compressed air supply employed in connection with the apparatus. In the pipe 8 is provided a controlling valve 9 and also a pressure gage 10.

In injecting the compressed fluid into the receptacle, the needle 6 is thrust through the opening 4 and the block 5, in the manner shown in Fig. 1, so that the inner end of the passage through said needle communicates with the interior of the receptacle. The needle is permitted to remain in this position until the pressure gage indicates a pressure corresponding with that of the interior of the ball (the latter being of course known beforehand) whereupon the needle is withdrawn. The member 5, upon withdrawal of the needle, serves as a valve, the same being adapted, because of the resiliency thereof, to automatically close the incision made by the needle and thus prevent leakage therethrough. In order to insure against any possible leakage, a drop of cement, solder or other suitable sealing material 11 may be fused over the opening 4, as clearly shown in Fig. 2.

It will be seen that with the pressure in the receptacle surrounding the ball 2 the same as that of the interior of the ball, the possibility of leakage from the ball is prevented and thus reduction of pressure of the ball prevented. The possibility of leakage from the ball being precluded, the same may be kept indefinitely without deterioration through softening such as results at the present time where a ball, such as a tennis ball, is kept from one season to another or for a considerable period of time.

If desired the fluid injected into the re-

ceptacle may be of the same composition as the gas or fluid in the ball. Where this is done, the pressure in the ball will be maintained notwithstanding diffusion of the fluid through the walls of the ball.

While I have illustrated and described the preferred method and one form of apparatus used in connection therewith, it is understood that I do not wish to be limited specifically to this disclosure as variations and modifications may be made without departing from the spirit of the invention as defined by the appended claims.

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

1. The method of preserving an object containing fluid under pressure during storage and prior to use of the object, consisting in inclosing the object in a container under pressure.

2. The method of preserving an object containing fluid under pressure during storage and prior to use of the object, consisting in inclosing the object in a container under pressure substantially the same as that of the fluid contained in the object.

3. The method of preserving an object containing fluid under pressure during storage and prior to use of the object, consisting in inclosing the object under pressure in a hermetically sealed container.

4. The method of preserving an object containing fluid under pressure during storage and prior to use of the object, consisting in inclosing the object in a hermetically sealed container containing fluid of the same composition as that contained in the object and under the same pressure as that of the fluid contained in the object.

5. The method of preserving an object containing fluid under pressure during storage and prior to use of the object, consisting in inclosing the object in a container, in introducing fluid into said container under substantially the same pressure as that of the fluid contained in the object, and then hermetically sealing said container.

6. The method of preserving an object containing fluid under pressure during storage and prior to use of the object, consisting in inclosing the object in a container provided with a comparatively minute opening, in introducing fluid into said container through said opening, the fluid introduced being under substantially the same pressure as that of the fluid contained in the object, and then hermetically sealing the opening of said container.

7. The method of preserving a state of fluid pressure in an object during storage and prior to use of the object, which consists in surrounding the object with fluid under pressure.

8. The method of preserving a state of fluid pressure in an object during storage and prior to use of the object which consists in inclosing the object in a hermetically sealed container under pressure.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANK W. STOCKTON.

Witnesses:

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