

No. 659,505.

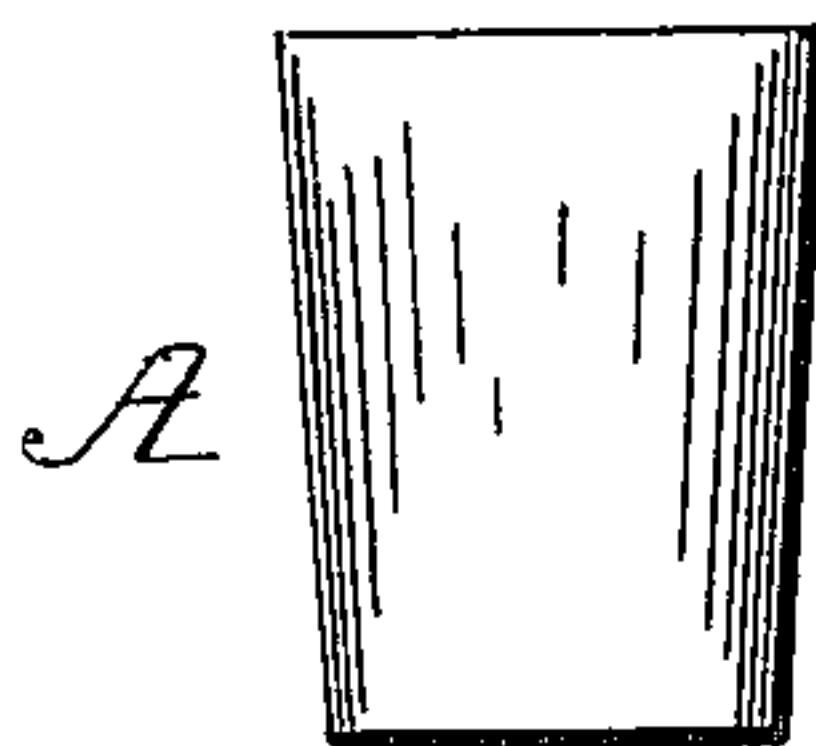
Patented Oct. 9, 1900.

A. BLUMER.  
PROCESS OF MANUFACTURING STOPPERS.

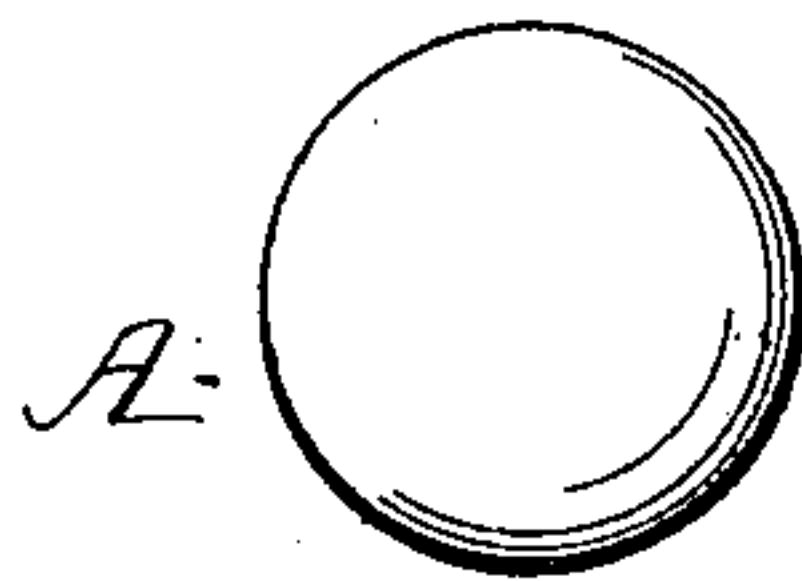
(Application filed Feb. 27, 1899.)

(No Model.)

*Fig. 1.*



*Fig. 2.*



Witnesses:  
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# UNITED STATES PATENT OFFICE.

ARTHUR BLUMER, OF LA VARENNE, FRANCE.

## PROCESS OF MANUFACTURING STOPPERS.

SPECIFICATION forming part of Letters Patent No. 659,505, dated October 9, 1900.

Application filed February 27, 1899. Serial No. 707,102. (No specimens.)

*To all whom it may concern:*

Be it known that I, ARTHUR BLUMER, a citizen of the Swiss Confederation, residing at La Varenne, St. Hilaire, Seine, France, have  
5 invented certain new and useful Improvements in Processes of Manufacturing Stoppers, of which the following is a specification.

This invention relates to stoppers for bottles and the like, and has for its object to construct a stopper which may be both gas and  
10 water proof and as such will be particularly adapted for use in bottling wines, spirits, and the like.

In the drawings, Figure 1 is a side view of  
15 a stopper constructed of my composition. Fig. 2 is a plan view thereof.

According to this invention I construct a stopper A of finely-divided cork and nitrocellulose made into a homogeneous mass and  
20 saturated with a fatty mineral oil, such as paraffin or paraffin and vaseline. I take cork reduced to a powder and mix it with collodion and press the compound into molds. The proportions preferably employed are as follows: Five and a half parts of cork, ten parts  
25 of solution of collodion containing one part of nitrocellulose, (containing the usual quantity of water—viz., forty to fifty per cent.) and ten parts of acetone. The mass after  
30 being pressed in the molds and dried is cut into pieces of the form of stoppers, but having somewhat larger dimensions than these stoppers are to have finally. The pieces are now treated with a five-per-cent. solution of  
35 nitrocellulose in pure acetone under an atmospheric pressure which varies according to the thickness of the stoppers and the hardness which it is required to give them. When  
40 this operation is completed, the stoppers are dried and then reduced to their final dimen-

sions by turning and polishing. The stoppers are now impregnated with refined paraffin or a mixture of paraffin and vaseline. This last process may be accomplished in various ways according to the extent to which  
45 it is desired to impregnate the stoppers. They may, for example, be simply immersed in the melted compound for a few minutes and then heated to drive the fatty substance into the interior of the material. The articles are  
50 finally finished by polishing with talc powder with or without the aid of vaseline.

It is to be understood that the above-mentioned proportions may be varied as found  
55 necessary.

I claim—

1. The herein-described method in the manufacture of stoppers, which consists in mixing powdered cork with a collodion solution as described, then compressing the mixture  
60 and allowing it to dry, then treating the mixture with a solution of nitrocellulose and acetone, and then saturating the mixture with a fatty mineral oil.

2. The herein-described method in the manufacture of stoppers, which consists in mixing powdered cork with collodion solution as described, then compressing the mixture and allowing it to dry, then treating the mixture  
65 with a solution of nitrocellulose and acetone under pressure, and then saturating the mixture with a fatty mineral oil.  
70

In witness whereof I have hereto set my hand in the presence of two subscribing witnesses.

ARTHUR BLUMER.

Witnesses:

EDWARD P. MACLEAN,  
GEORGE E. LIGHT.