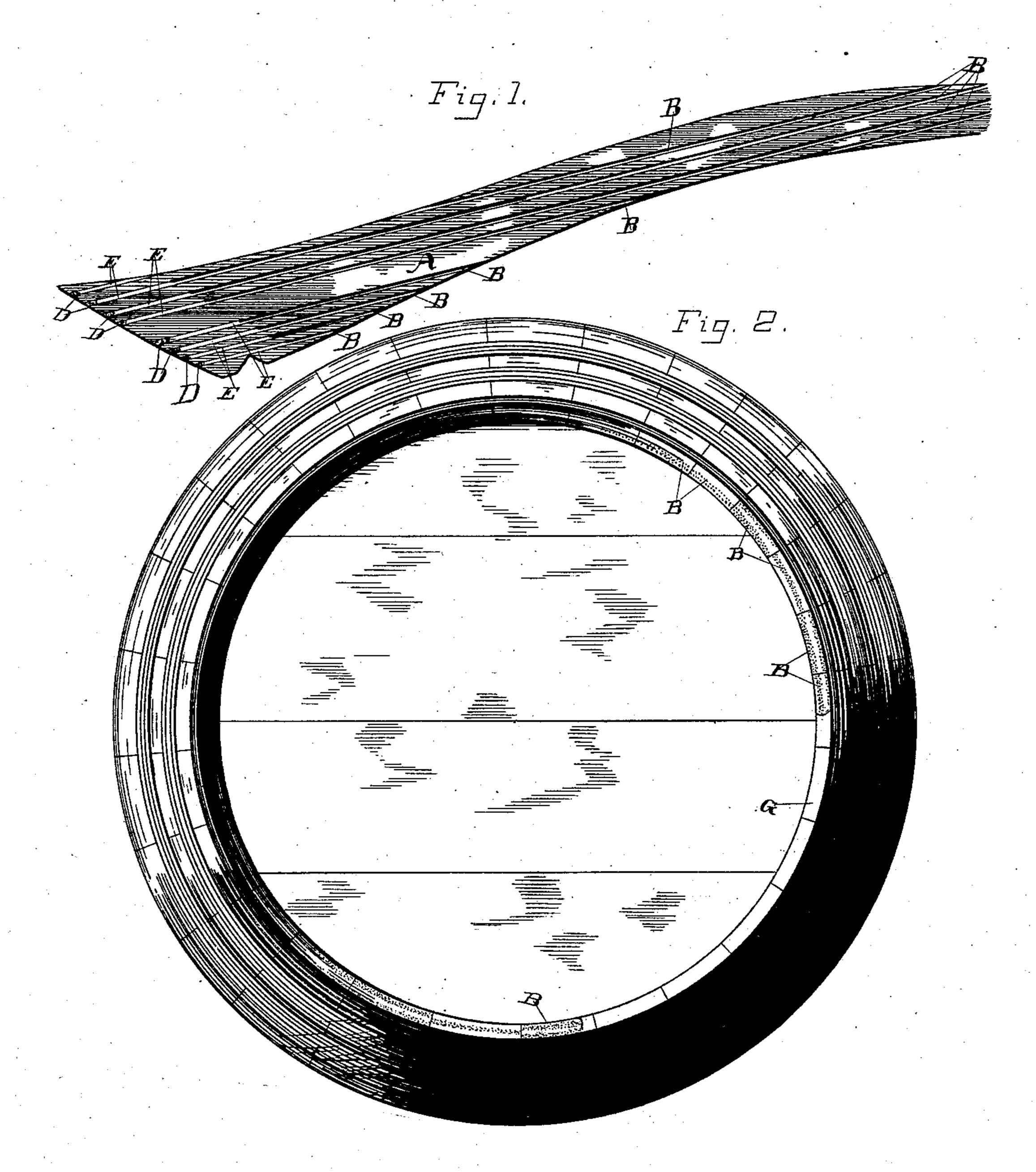
(No Model.)

## E. SCHAKAT.

CASK AND METHOD OF PREVENTING THE SAME FROM LEAKING.

No. 364,676.

Patented June 14, 1887.



Wittesses. Whamanis, V. L. Landy Edward Ochakat.
by Hazard & Townsend
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## United States Patent Office.

EDUARD SCHAKAT, OF LOS ANGELES, CALIFORNIA.

## CASK AND METHOD OF PREVENTING THE SAME FROM LEAKING.

SPECIFICATION forming part of Letters Patent No. 364,676, dated June 14, 1887.

· Application filed September 28, 1886. Serial No. 214,797. (No model.)

To all whom it may concern:

Be it known that I, EDUARD SCHAKAT, a subject of the Emperor of Russia, residing at Los Angeles, in the county of Los Angeles 5 and State of California, have invented a new and useful Improvement in Casks and Method of Preventing Casks from Leaking, of which

the following is a specification.

My invention relates to casks made of wood ic having large and open pores. Heretofore the only kinds of wood which have been considered valuable for use in the manufacture of staves for casks were those having a close fiber and small pores, for the reason that casks made 15 of wood having large and free pores are liable to leak. This objection has caused the rejection of all kinds of wood having large and free pores.

The object of my invention is to devise 20 means whereby this difficulty can be avoided and whereby a cask made of such wood can be made perfectly tight without coating the in-

side of the cask.

I have discovered that the cause of the leak-25 age is that illustrated in Figure 1 of the ac-- companying drawings—that is to say, when the stave is shaved into proper shape the pores of the wood opening at the end of the stave are cut into upon the inner side of the 30 stave, thus leaving openings extending from the inner side to the end of the stave, which causes leakage when the cask is put together. I remedy this difficulty by the means herein described.

Fig. 1 is a section of a stave treated by my method and cut parallel with the pores, so as to expose them throughout their entire length. Fig. 2 represents the end of a cask made of porous wood, a portion only, G, of 40 which has been treated by my process.

A is the stave. B B are the open pores. D D and E E represent the filling in the pores.

My method of treating the cask to prevent leakage is as follows: After the cask has been 45 put together, as shown in Fig. 2, I smear the ends of the staves with a liquid made by boil-

ing one part of rosin in two parts of boiled linseed-oil until they are thoroughly mixed, applying the mixture while hot. I then rub the surface of the chines of the cask with a 50 piece of soft sandstone, so as to force the gritty particles of the stone into the pores. The oil and rosin are absorbed by the pores to quite a depth, and, together with the particles of the sandstone, form a cement which perfectly 55

closes the pores and prevents leakage.

It is obvious that other substances besides oil and rosin mixed and applied as set forth may be employed with beneficial results, as the principle of my discovery is that fill- 60 ing the pores at the end of the staves with a non-soluble and non-absorbent material will prevent the leakage consequent upon the use of wood having large and open pores.

In the drawings, D D represent the parti- 65

cles of sand in the ends of the pores.

E E represent the oil and rosin in the

pores.

My invention is especially adapted to prepare for use casks made of the common live 70 oak of California, which is suitable for casks in every respect except that the size of the pores causes leakage at the end of the staves, as above set forth.

Now, having described my invention, what 75 I claim as new, and desire to secure by Letters

Patent, is—

1. A cask having the pores in the ends of the staves filled with rosin, linseed-oil, and sandstone grit, substantially as and for the 80 purpose set forth.

2. The method of preparing casks for use and preventing leaking, consisting of the following steps: first, painting the ends of the staves with a hot mixture of rosin and linseed- 85 oil; second, rubbing the ends of the staves so treated with soft sandstone.

EDUARD SCHAKAT.

Witnesses: JAS. R. TOWNSEND, MAY G. HAMMOND.