

UNITED STATES PATENT OFFICE.

PETER LUTZ, OF BAMBERG, GERMANY.

PROCESS OF MAKING PRESERVATIVES FOR VIOLIN-STRINGS.

SPECIFICATION forming part of Letters Patent No. 699,541, dated May 6, 1902.

Application filed September 9, 1901. Serial No. 74,852. (No specimens.)

To all whom it may concern:

Be it known that I, PETER LUTZ, a subject of the Emperor of Germany, and a resident of Bamberg, Germany, have invented certain
5 new and useful Improvements in Processes of Making a Preservative for Violin-Strings, of which the following is a specification.

The present invention refers to improvements in the manufacture of a preservative
10 for gut-strings.

The new process consists, essentially, in dissolving paraffin-oil in a mixture of benzene and camphor-spirit. Hitherto olive-oil was used for the manufacture of preservatives
15 for gut strings. Olive-oil, however, has great defaults, because in variations of temperature it is subject to disagreeable alterations. At low temperature it becomes a crumbling mass, and at high temperature it becomes rancid.
20 For this reason olive-oil cannot be used for preserving gut strings. If one would smear the strings frequently with olive-oil, the strings will become soft, and they will lose their elasticity. According to the present in-
25 vention all these defaults arising from the use of olive-oil will be prevented if paraffin-oil is used instead of olive-oil and dissolved in a mixture of benzene and camphor-spirit. Paraffin-oil undergoes no changes in the air, and
30 therefore retains always its preserving quality. By the admixture of camphor-spirit the preservative will better adhere to the strings, especially to spun strings, and therefore a better preservation of the strings is attained.

35 The paraffin-oil must be clear and colorless. The benzene is a clear colorless thinly-liquid oil of a specific gravity 0.89. Spirit of cam-

phor consists of one part camphor in seven parts spirit and two parts water.

The manufacture of the preservative is as
40 follows: Forty-five parts paraffin-oil are added to a mixture of forty-five parts benzene and seven parts camphor-spirit. To perfume this mixture, three parts oil of cloves and two drops of cologne-water are admixed. This
45 mixture is brought into a closed receptacle, where it remains for three or four hours. From time to time it is thoroughly agitated. A yellowish liquid then deposits on the bottom of the receptacle. As soon as the liquid
50 which is above the yellowish deposit has become colorless it is poured off the deposit, and then it is ready for use.

The strings which are smeared with the preservative have a great capability of re-
55 sisting each variation of temperature. The strings are no more influenced by dry and humid air nor by oily palms. They become very elastic, flexible, full-sounding, and durable. Strings which are damaged by lying get
60 back their original quality when they are smeared with the preservative.

What I claim is—

A process for manufacturing a preservative for gut strings consisting in dissolving paraf-
65 fin-oil in a mixture of benzene and camphor-spirit.

In witness whereof I have hereunto set my hand in presence of two witnesses.

PETER LUTZ.

Witnesses:

ADAM SCHMIDT,
MATHIAS WEHNER.