

H. MESSMER.  
Tobacco Washer.

No. 202,568.

Patented April 16, 1878.

FIG. 1.

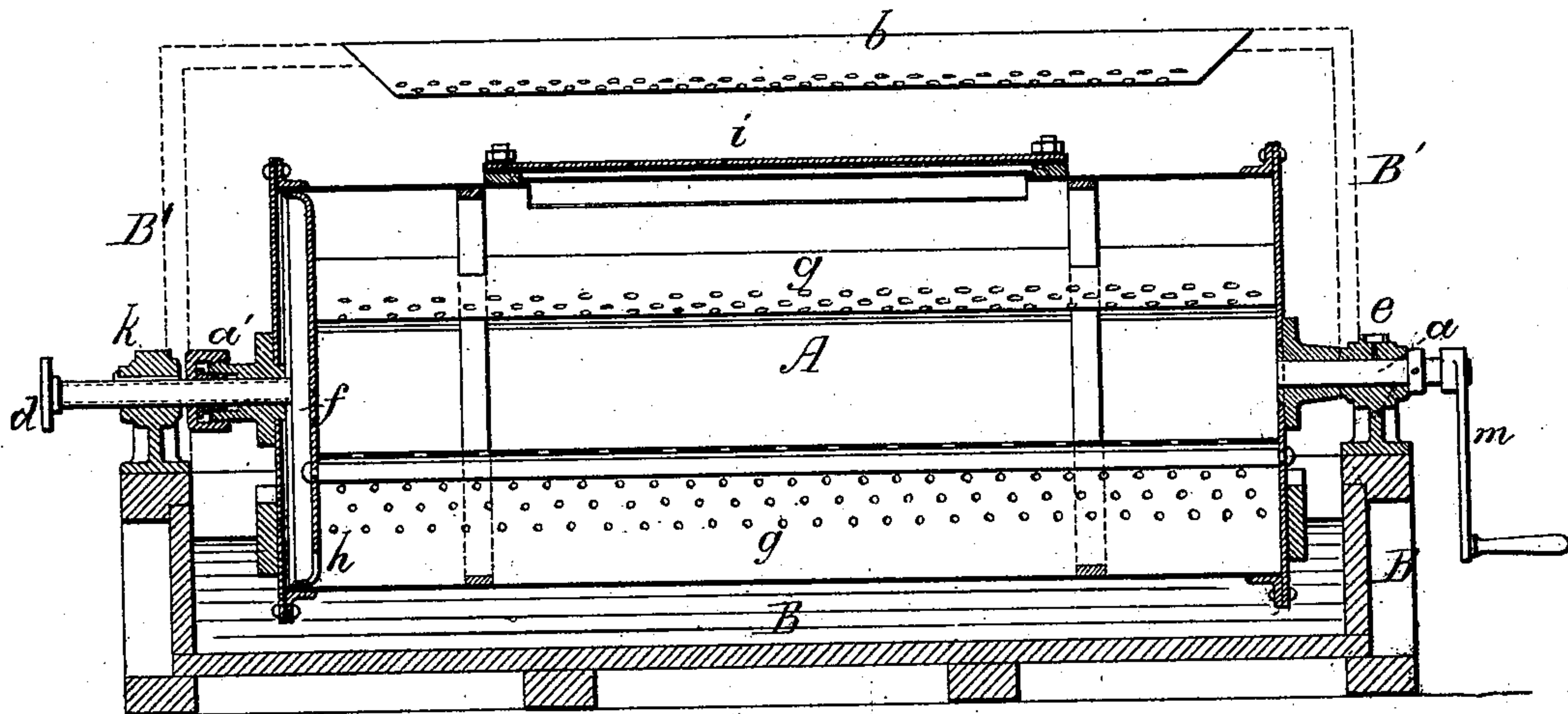
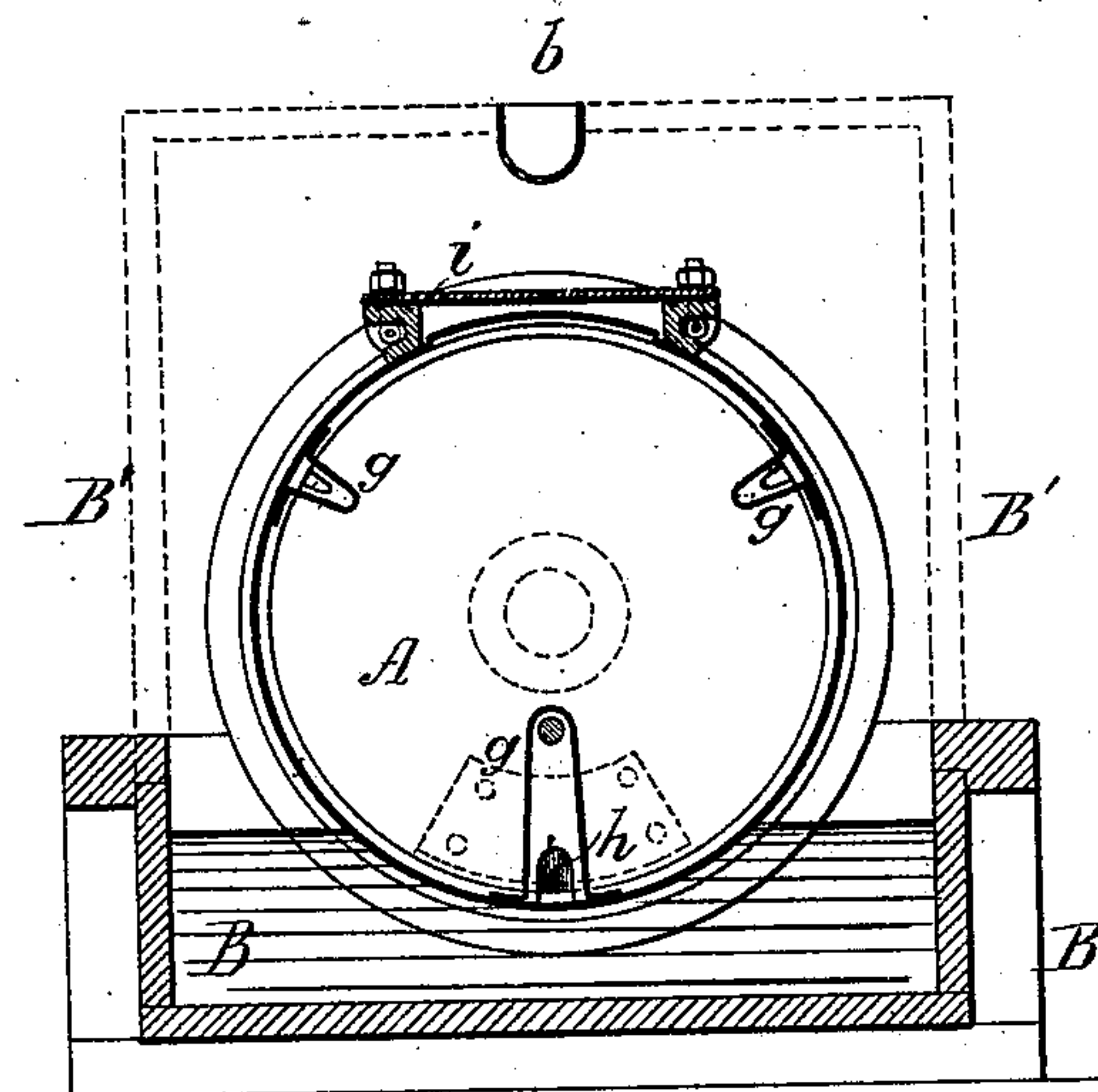


FIG. 2.



Witnesses.

Thomas M. Hoan  
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# UNITED STATES PATENT OFFICE.

HERMANN MESSMER, OF MAGDEBURG, PRUSSIA.

## IMPROVEMENT IN TOBACCO-WASHERS.

Specification forming part of Letters Patent No. 202,568, dated April 16, 1878; application filed February 6, 1878.

*To all whom it may concern:*

Be it known that I, HERMANN MESSMER, of Magdeburg, Prussia, have invented a new and useful Improvement in Tobacco-Soaking Machines, of which the following is a specification:

The object of my invention is to quickly and thoroughly loosen lumps of pressed tobacco, and at the same time to impart to the tobacco the required degree of moisture; and this object I attain in the manner which I will now proceed to describe, reference being had to the accompanying drawings, in which—

Figure 1 is a longitudinal section of my machine for loosening and moistening tobacco, and Fig. 2 a transverse vertical section of the same.

A is a closed cylindrical casing, having at one end a journal, *a*, adapted to a bearing, *e*, on the box or frame B, and provided with an operating-handle, *m*, or with a pulley, if the machine is to be driven by motive power. To the opposite end of the cylinder A is secured a stuffing-box, *a'*, adapted to turn on a cylindrical tube, *d*, which is keyed or otherwise secured to a post, *k*, on the box or frame B. At the end of the cylinder, through which the tube *d* passes, is a chamber, *f*, formed by a sheet-iron partition, having at its outer edge openings *h*—three, in the present instance—each communicating with a hollow rib or bridge, *g*, which extends the length of the cylinder, and is provided with a number of perforations, opening into the interior of the cylinder. The latter is provided with an opening for the introduction and withdrawal of the tobacco, and closed by a steam-tight cover, *i*.

When the machine is put in operation, the box B is closed by a removable cover, B', having at the top, immediately above the cylinder, a perforated receptacle, *b*, for a purpose described hereinafter.

The tube *d* communicates, through a suitably-valved pipe, with a steam-generator, for supplying steam to the cylinder.

The usual method of loosening and moistening tobacco is to place the lumps of tobacco in water and leave them there for about twenty-four hours, or until the lumps become completely soaked.

In carrying out my invention, the lumps of tobacco are placed in the cylinder and the

cover *i* secured thereon, so as to make a steam-tight joint, and the whole is inclosed by the cover B'. Dry steam is then turned on from the generator, and the cylinder slowly rotated. As the lumps of tobacco are turned over by the ribs or bridges in the cylinder, the steam, which enters all parts of the cylinder through the numerous perforations in the bridges, and being under pressure, penetrates all the pores and cavities of the tobacco. As soon as the tobacco has become sufficiently loosened, the steam is turned off, and the cylinder being still kept in motion, cold water is allowed to flow through the perforated receptacle *b* over the cylinder, and the latter is thereby cooled.

The object of this cooling operation is, first, to condense the steam, so that the water of condensation may moisten the tobacco, and, secondly, to cool the tobacco before it is exposed to the atmosphere; for if the tobacco were exposed in a heated state, it would become dry and hard.

It may be necessary to allow a small quantity of air to enter the cylinder through a suitable valve in the inlet-pipe, in order to compensate for the vacuum caused by condensation. When the tobacco has become sufficiently cooled it may be removed from the cylinder.

The time occupied by the whole operation does not generally exceed twenty or thirty minutes.

I claim as my invention—

1. The within-described method of loosening and moistening tobacco—that is to say, by first subjecting the lumps to the action of steam and agitation in a closed vessel, and, secondly, quickly cooling the contents of the cylinder as soon as the supply of steam is cut off, all substantially as described.

2. The combination of the cylinder with a box, B, and a cover, B', having a perforated receptacle, *b*, substantially as specified.

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

HERMANN MESSMER.

Witnesses:

THEODOR GERSTNER,  
BERTHOLD ROI.