

No. 720,348.

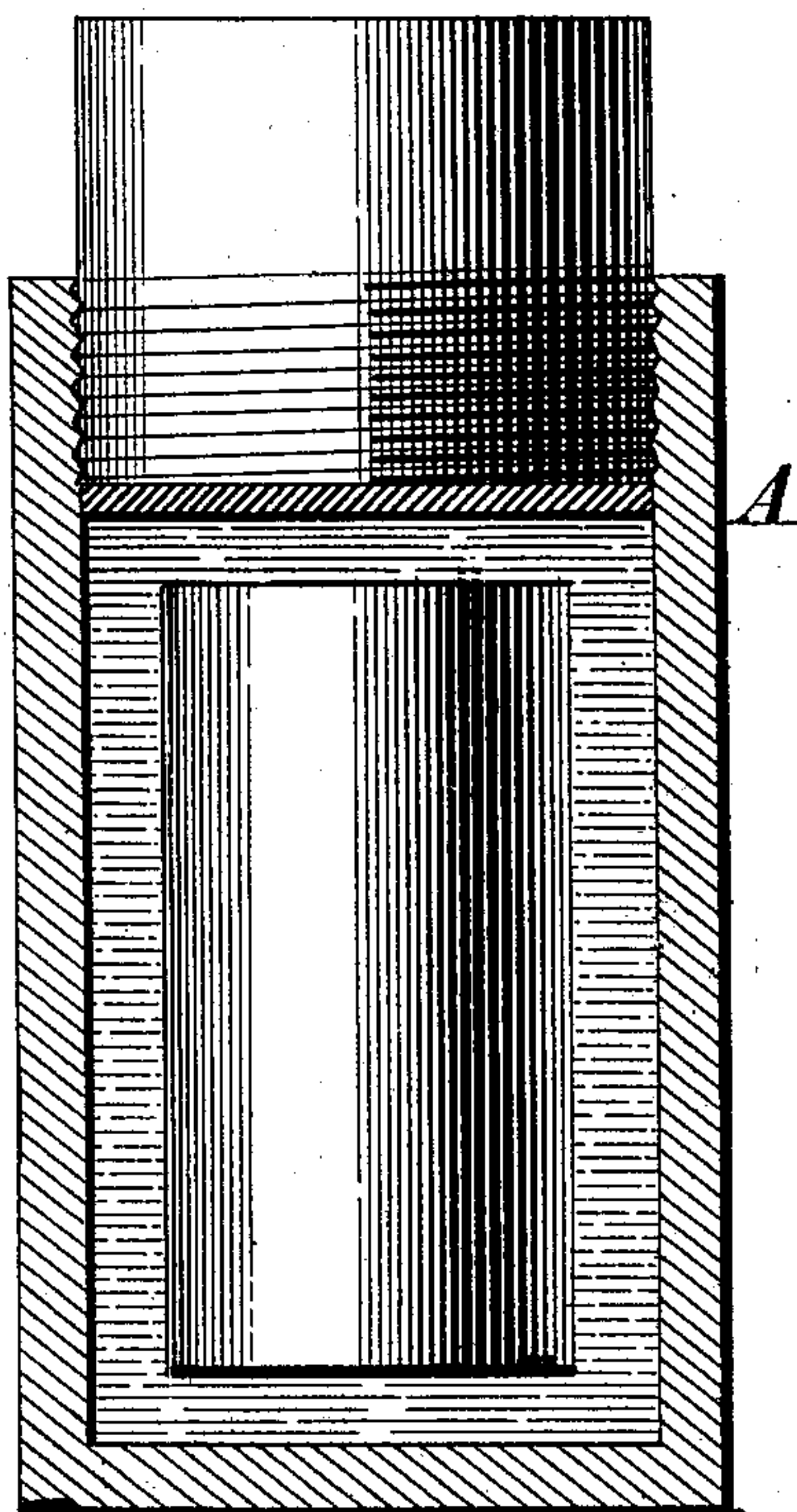
PATENTED FEB. 10, 1903.

W. HOLZER.

PROCESS OF COMPRESSING METALS OR OTHER MATERIALS.

APPLICATION FILED MAR. 15, 1900.

NO MODEL.



Witnesses

P. F. Hagler.
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UNITED STATES PATENT OFFICE.

WILLIAM HOLZER, OF NEW YORK, N. Y., ASSIGNOR TO ALICE HOLZER, OF
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PROCESS OF COMPRESSING METALS OR OTHER MATERIALS.

SPECIFICATION forming part of Letters Patent No. 720,348, dated February 10, 1903.

Application filed March 15, 1900. Serial No. 8,693. (No specimens.)

To all whom it may concern:

Be it known that I, WILLIAM HOLZER, of the city, county, and State of New York, have invented a new and useful Process or Method
5 for Treating Metals or Glass, which improvement is fully set forth in the following specification and accompanying drawing.

My invention consists of a process or method of treating metal or other material for solidi-
10 fying the same, the process embodying the subjection of said material or article to a fluid agent within a closed receptacle and then causing the expansion of said agent by heat, thus greatly compressing said material, and
15 thereby increasing the strength and resistive qualities thereof.

The figure represents a vertical sectional view of an apparatus that may be employed in carrying out my invention, referring to
20 which—

A designates a flask, which is constructed to withstand the high pressure to which it may be subjected, said flask containing hydrargyrum or mercury or any other suitable
25 fluid agent. In said agent I completely immerse metal, glass, or other material to be treated and then tightly close the flask, after which heat is applied to the flask, whereby the fluid greatly expands, creating a high

pressure in the tank, the same being exerted 30
on the material so as to effectively compress the same and render it tough with increased tensile strength.

Having thus described my invention, what I claim, and desire to secure by Letters Pat- 35
ent, is—

1. The process of solidifying metal or other material which consists in introducing an expansive fluid into a suitable receptacle, im-
40 mersing the metal or other material in said fluid, closing the receptacle in such manner that the fluid and immersed material substantially fill it, and then heating said fluid whereby the same expands and effectively
45 subjects the material to pressure.

2. The process of solidifying metal or other material which consists in introducing mer-
cury into a suitable receptacle, immersing the metal or other material in said mercury, closing said receptacle in such a manner that 50
the mercury and immersed material substantially fill it and then heating said mercury whereby the same expands and effectively subjects the material to pressure.

WILLIAM HOLZER.

Witnesses:

JOHN A. WIEDERSHEIM,
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