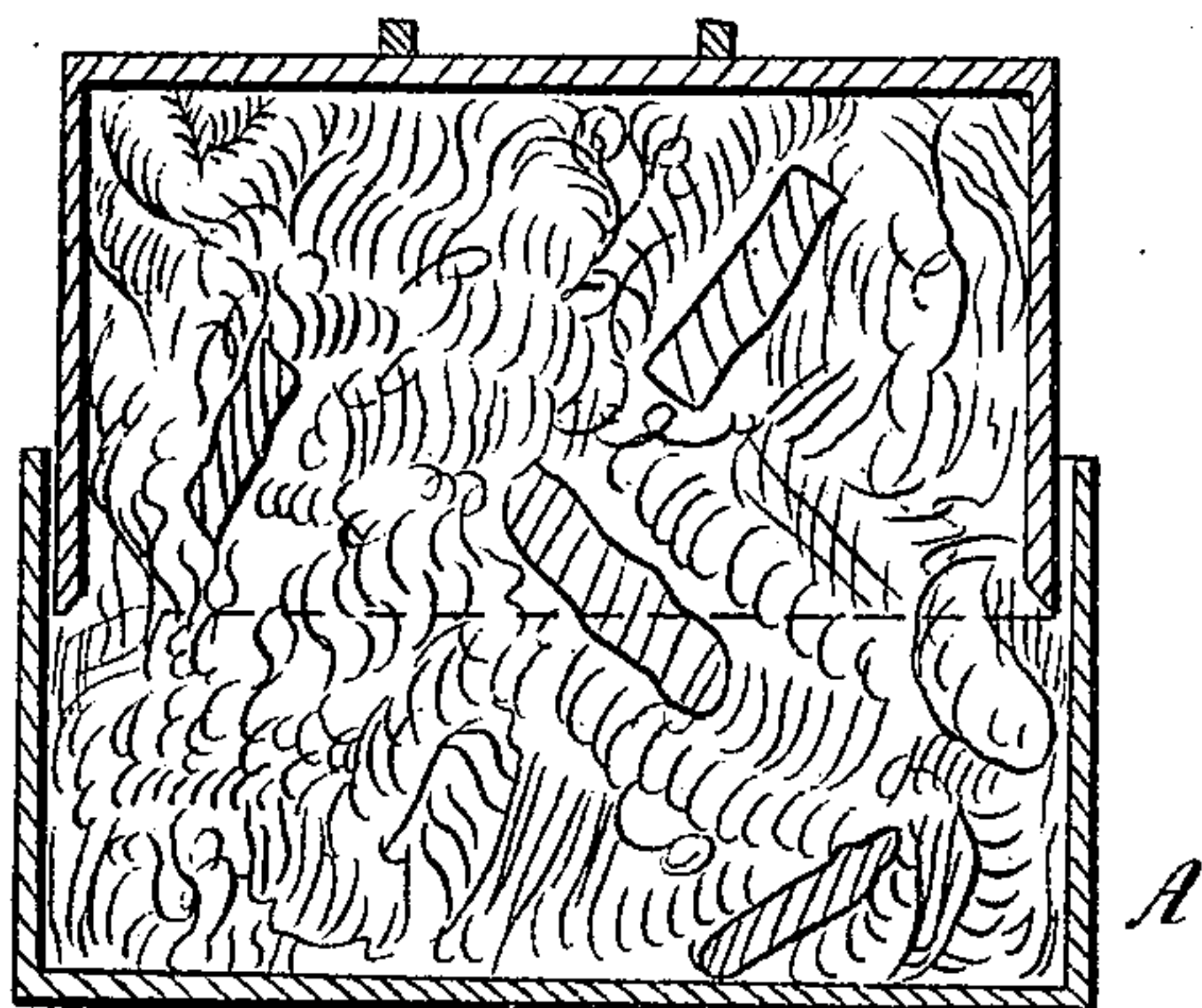
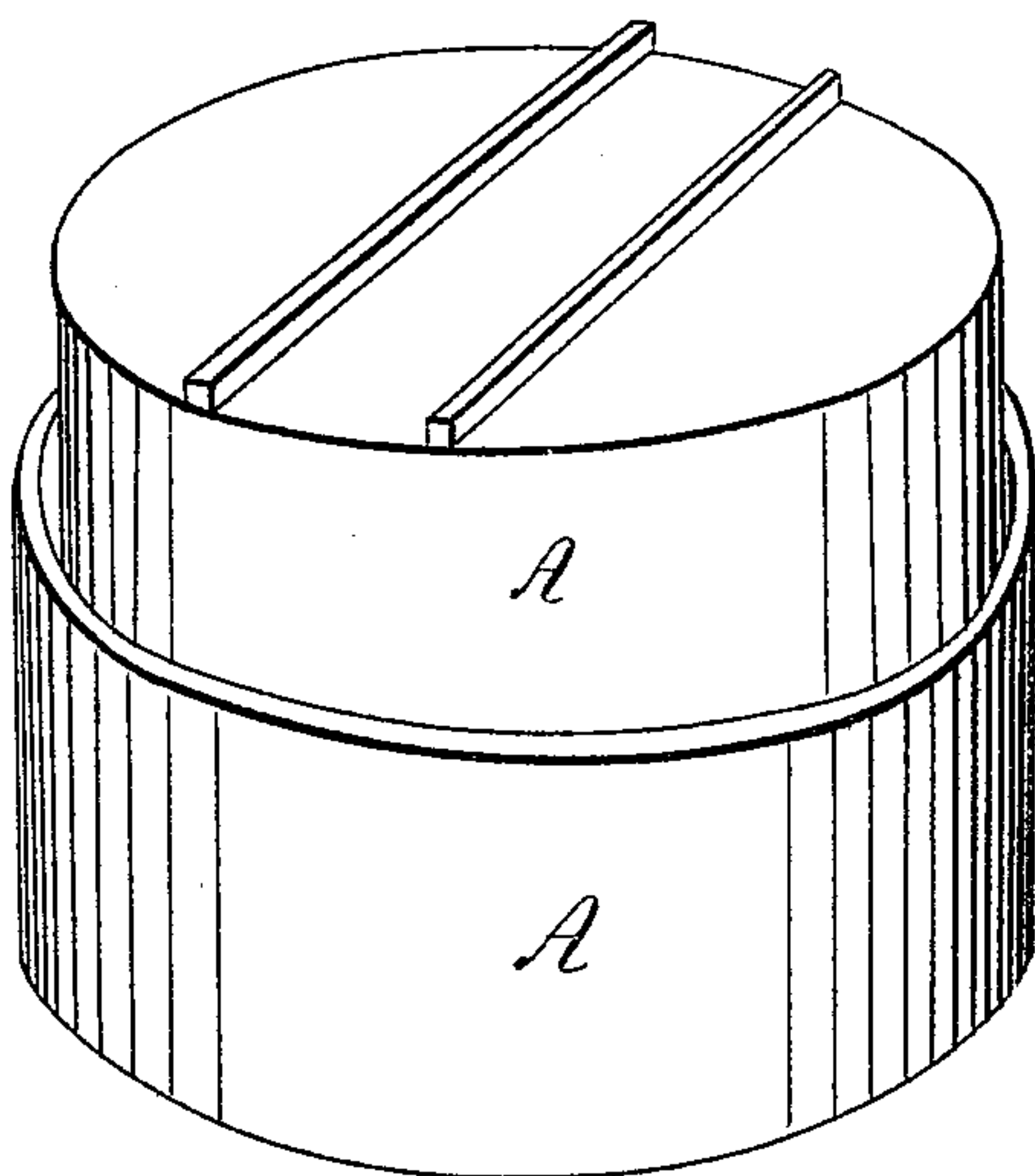
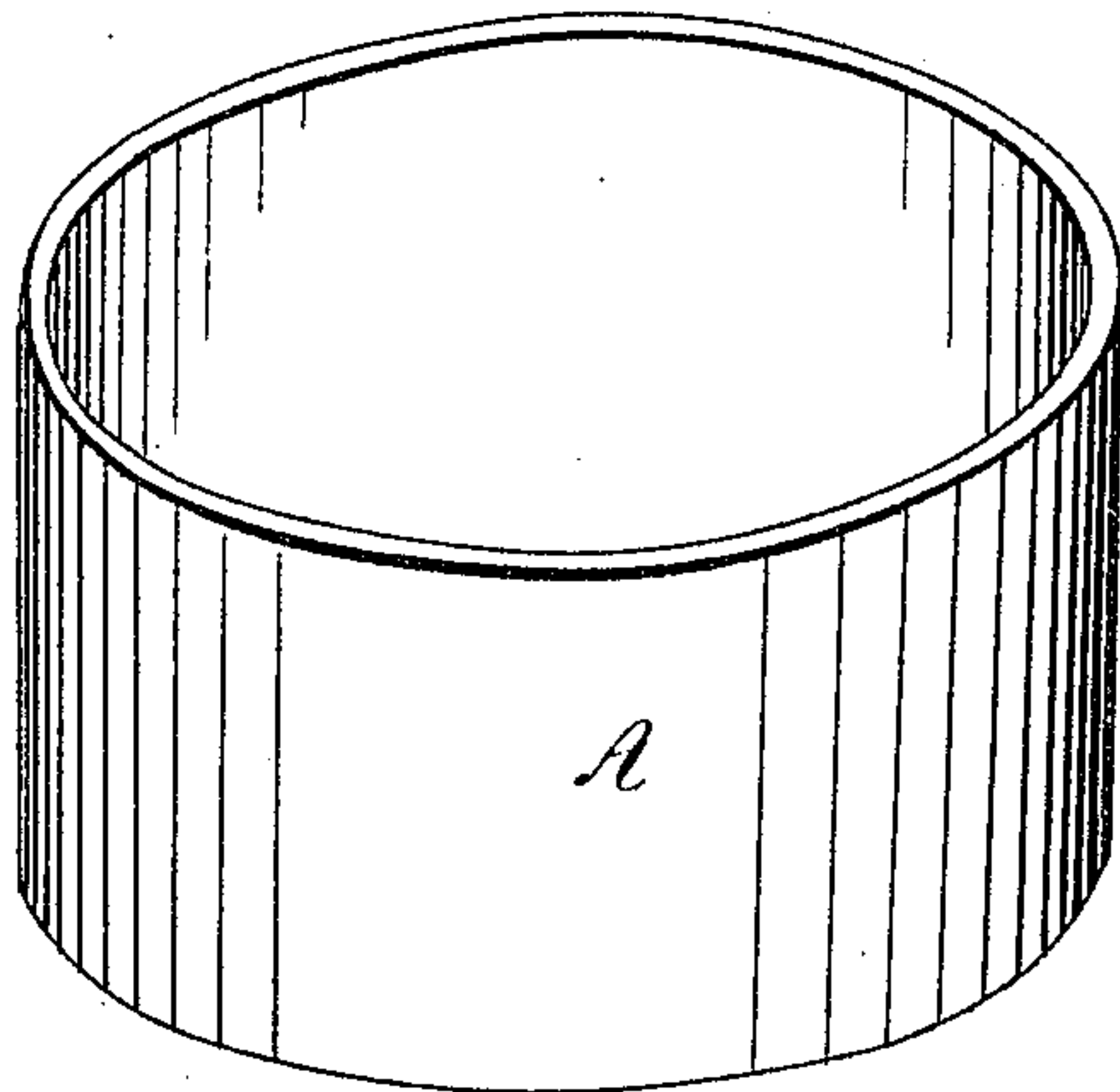
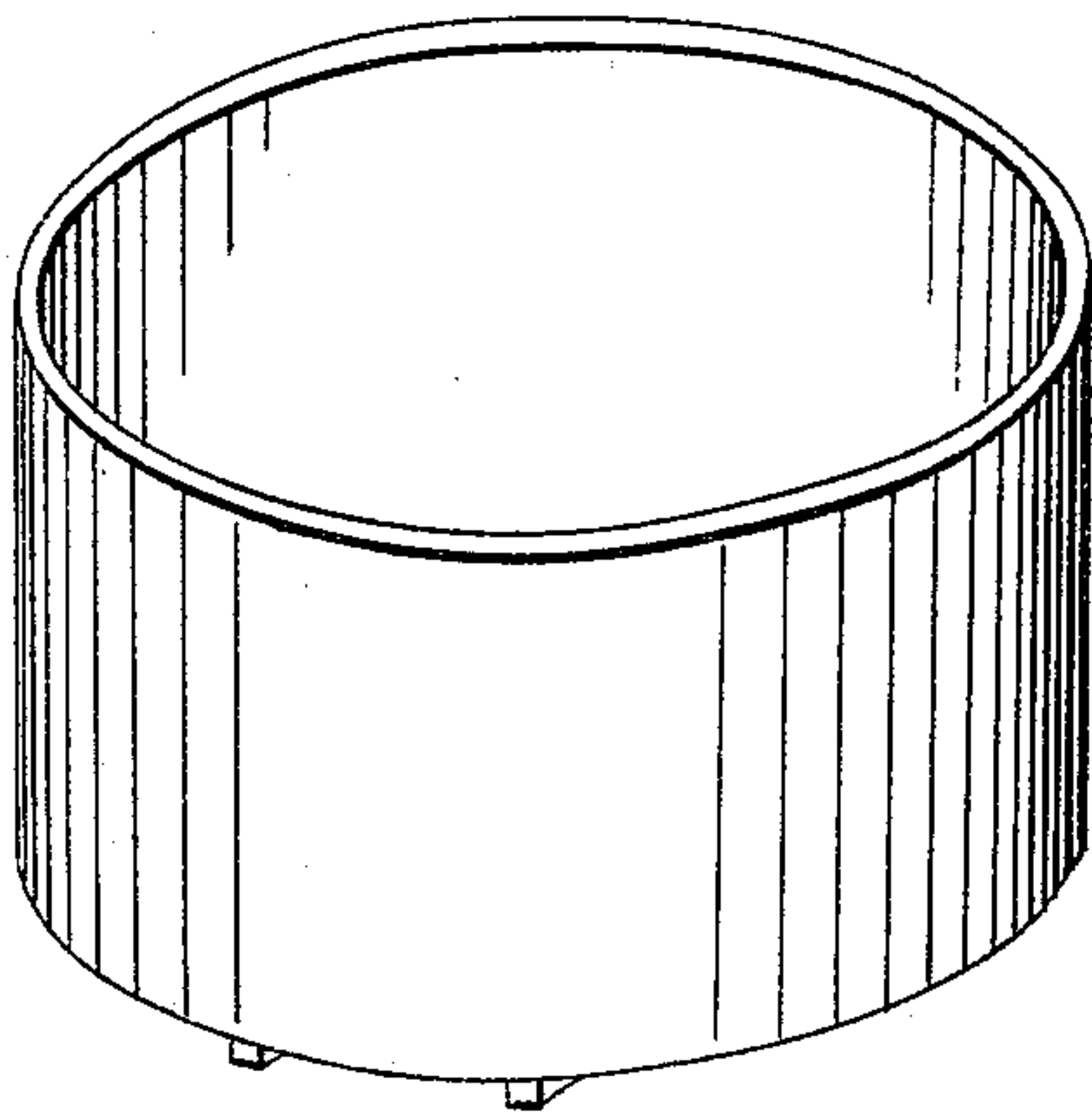


S. MORSE.

Car Spring.

No. 19,435.

Patented Feb. 23, 1858.



UNITED STATES PATENT OFFICE.

STEPHEN MORSE, OF SPRINGFIELD, MASSACHUSETTS.

RAILROAD-CAR SPRING.

Specification of Letters Patent No. 19,435, dated February 23, 1858.

To all whom it may concern:

Be it known that I, STEPHEN MORSE, of Springfield, in the county of Hampden and State of Massachusetts, have invented an
5 Improvement in Railroad-Car Springs, of which the following is a specification.

The nature of my invention consists in the construction of a car-spring from old and disintegrated parts rendered valueless or
10 nearly so by use, by inserting the parts and parcels in metallic cups, cylinders or boxes in such a manner as in pairs. The smaller ones will penetrate or force up within the larger when under pressure as in the usual
15 application of car-springs, thereby producing a sufficient amount of perpendicular elasticity, by preventing lateral expansion which occurs in the usual way of applying rubber springs. I also claim the insertion
20 of cork cotton or sponge among the parcels so inserted to prevent adhesion or solidifying when under pressure.

Having thus fully described my improved arrangement for car or other springs, wherever they may be applied, I claim—

1. The combination of the metallic cups A, A, fitting into each other as described, filled with pieces or parts of india rubber which has been used, and in a measure worn out, when mixed with sponge, cork or cotton or any other substance which under compression will prevent the india rubber from solidifying.

2. I also claim casting one of the cups in the recess of the jaw, in order to strengthen it, while at the same time the cup thus cast forms a part of the spring.

STEPHEN MORSE.

Signed in presence of—

J. M. STEBBINS,
WM. WHITE.