

No. 667,599.

Patented Feb. 5, 1901.

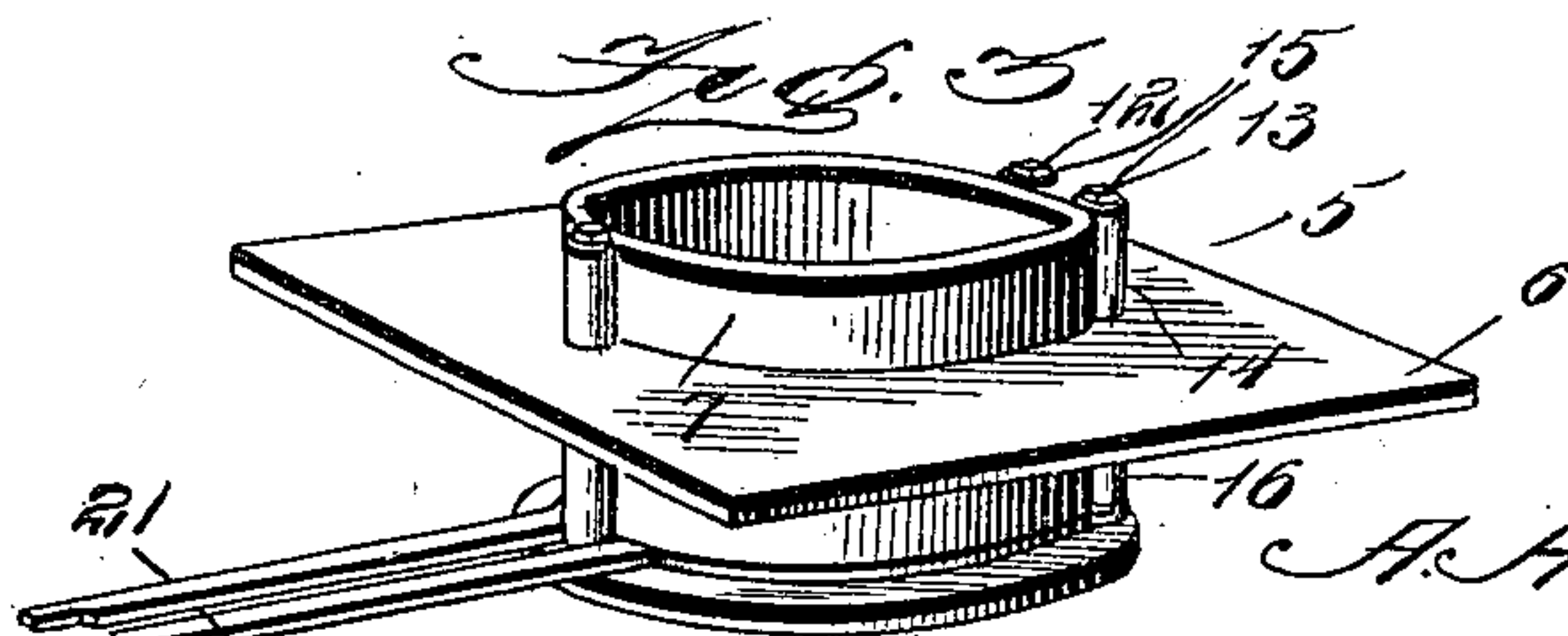
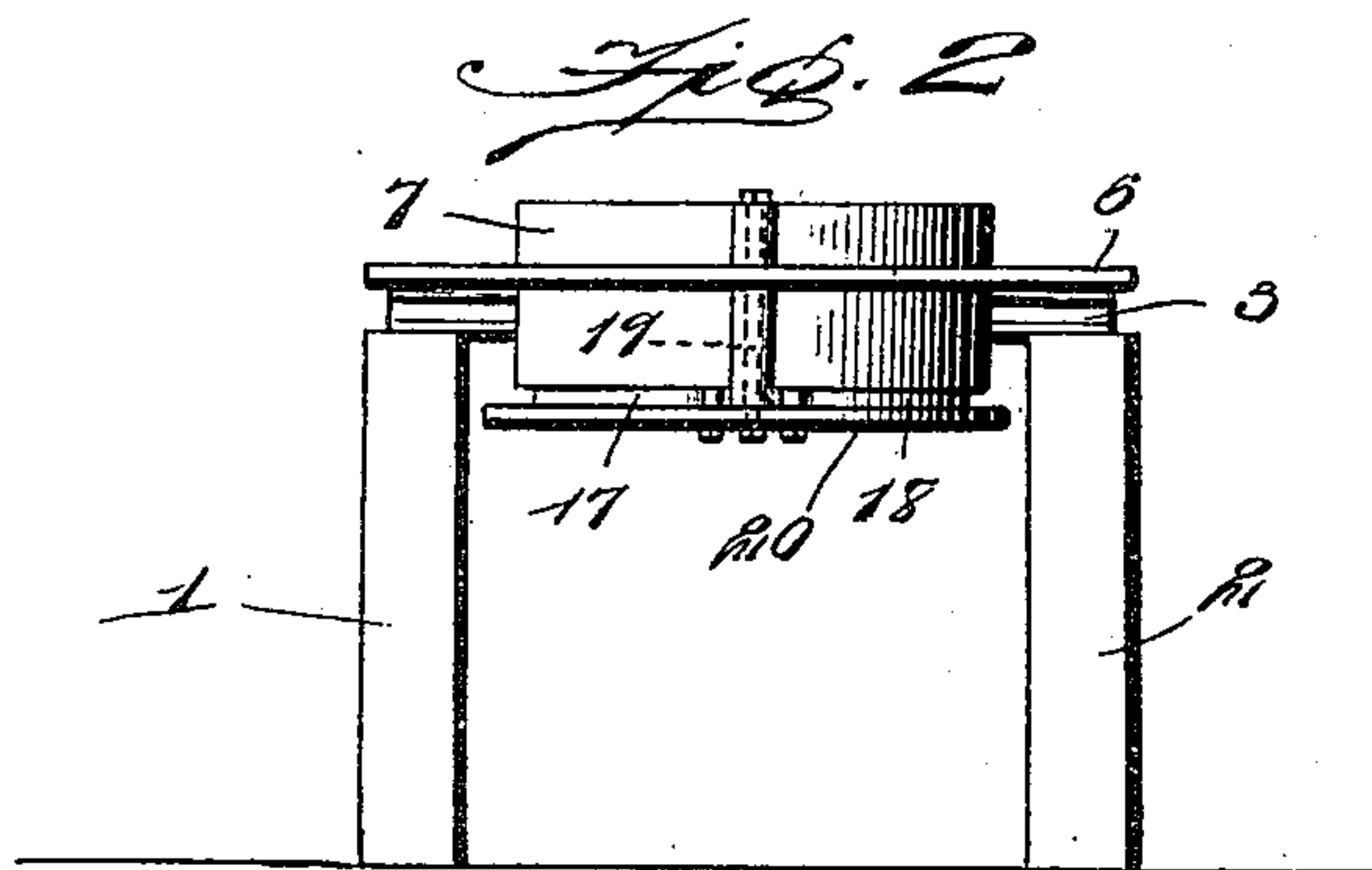
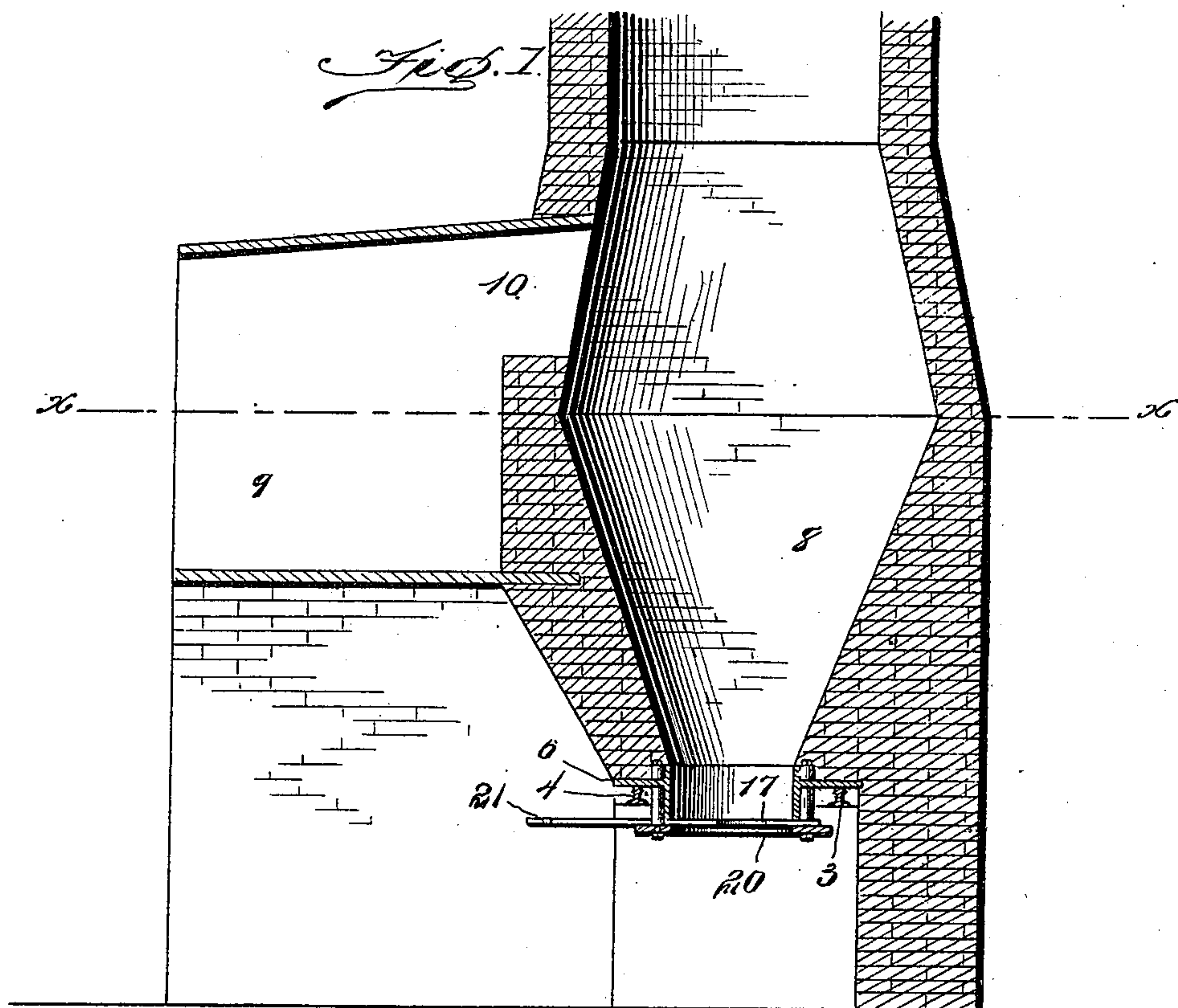
A. A. STEVENS.

LIMEKILN.

(Application filed Aug. 8, 1900.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses

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2 Sheets—Sheet 2.

Fig. 4.

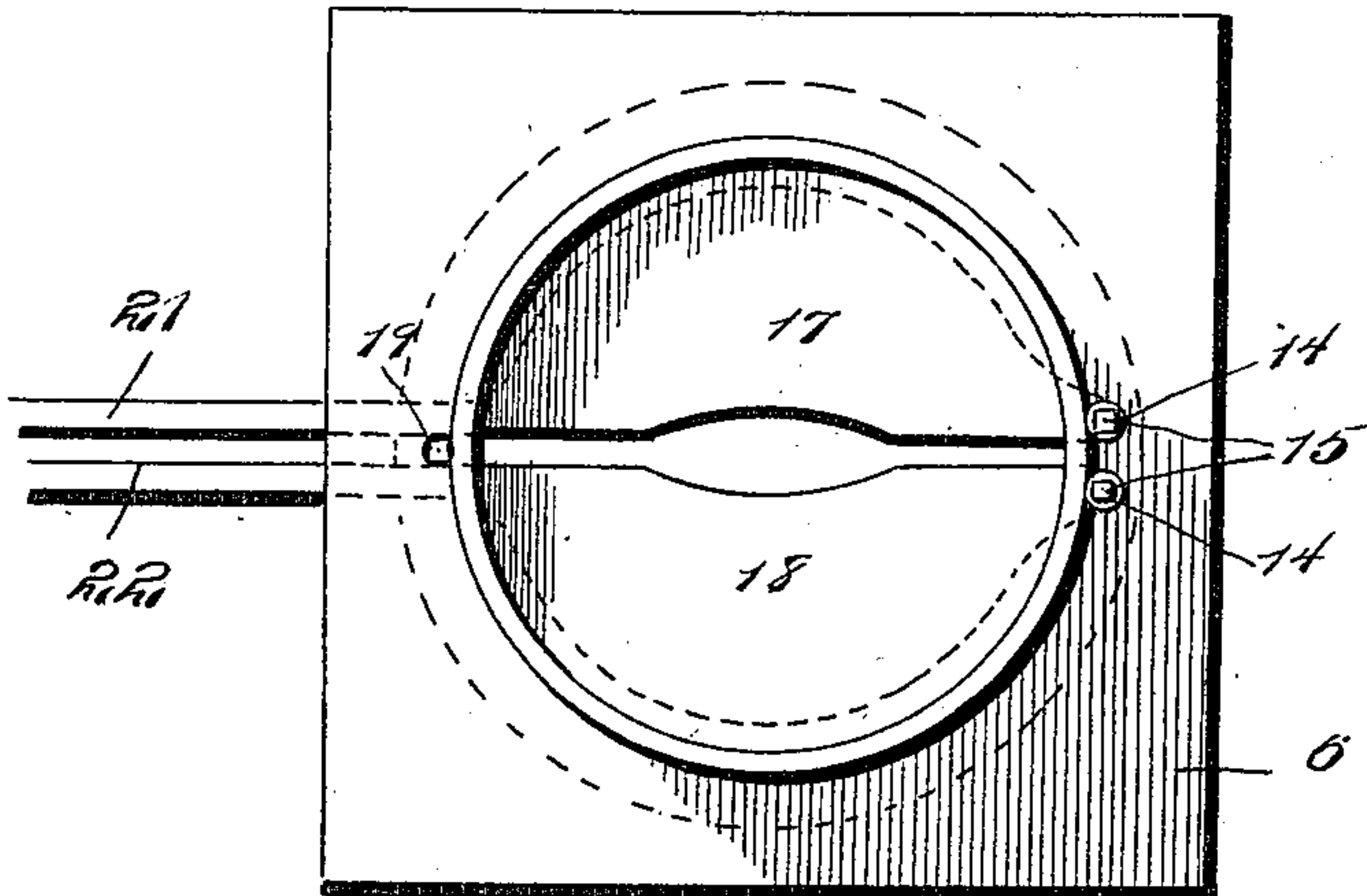


Fig. 5.

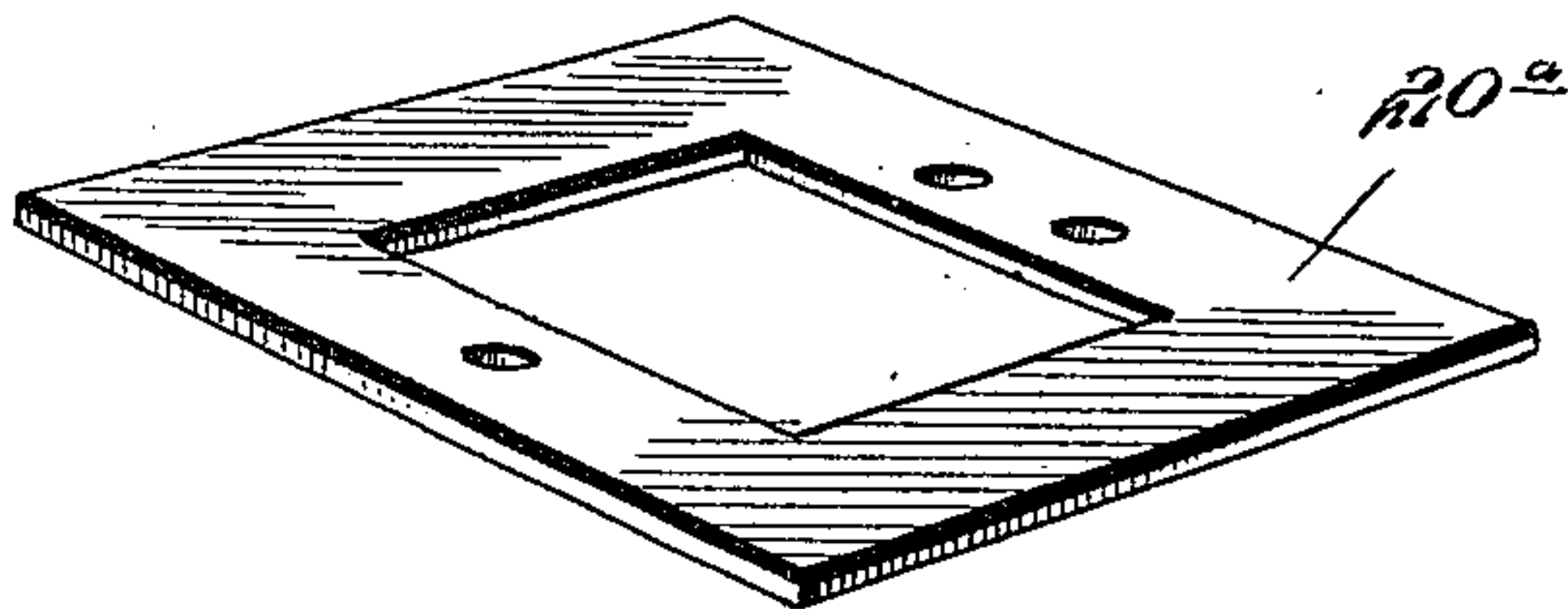
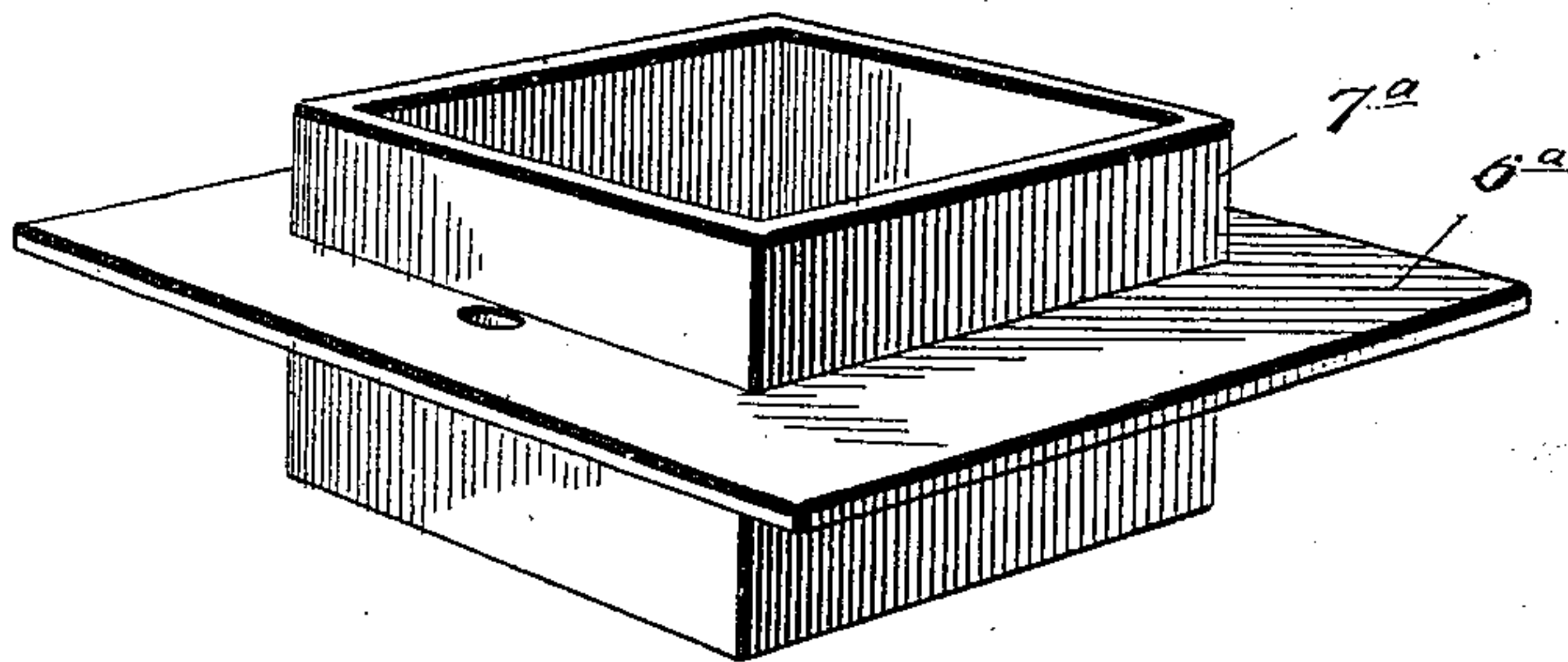


Fig. 6.

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UNITED STATES PATENT OFFICE.

ADIE A. STEVENS, OF TYRONE, PENNSYLVANIA.

LIMEKILN.

SPECIFICATION forming part of Letters Patent No. 667,599, dated February 5, 1901.

Application filed August 8, 1900. Serial No. 26,304. (No model.)

To all whom it may concern:

Be it known that I, ADIE A. STEVENS, a citizen of the United States, residing at Tyrone, in the county of Blair and State of Pennsylvania, have invented certain new and useful Improvements in Limekilns, of which the following is a specification.

This invention relates generally to kilns for the burning of lime, cement, or other like materials, and more particularly to a supporting-bottom and discharge-plate, from which the cooling-chamber and the combustion-chamber may be shaped and operated and through which lime or other like material may be drawn quickly and without the objectionable features and inconveniences sustained by employees in and about the operation of kilns or ovens for the burning of lime or other like material as now used.

A further object is to provide an efficient and desirable means for attaching the shears which form the bottom of the cooling-chamber and to furnish a support where a steel or iron hopper or cooling and discharge chamber is used.

The manner of carrying out the above objects will be clearly brought out in the following description and illustrated in the accompanying drawings, in which—

Figure 1 is a vertical longitudinal sectional view of a kiln constructed in accordance with my invention. Fig. 2 is a front elevation of the base, supporting-ring, and shears. Fig. 3 is a perspective view of the supporting-plate and pivoted shears. Fig. 4 is a bottom plan view of the supporting-plate and shears detached. Fig. 5 is a detail perspective view of a modified form of supporting-plate. Fig. 6 is a detail perspective view of a modified form of supporting-ring.

In carrying out the invention I construct the foundation of two parallel walls of solid masonry, designated by the reference-numerals 1 and 2. These walls are carried to a suitable height, and after the last course is laid a plurality of cross-rails 3 and 4 are placed upon their top edge to form a base, whereby the bottom or supporting plate may be suspended. This plate 5 comprises a cylindrical body, at the upper edge of which is an outwardly-extending annular flange 6, which lies upon the cross-rails, supporting the shears,

while the upwardly-extending flange 7 serves as a form, from which the cooling-chamber 8 may be properly shaped. The courses of masonry are then carried up to a point indicated by the dotted line *xx*, which is the top thereof. The fire-pot 9 having been properly constructed and provided with the necessary adjuncts it is connected with the kiln proper by a duct or flue 10, which leads into the combustion-chamber 11, which begins at the top of the cooling-chamber and extends up a suitable distance above the same.

The general construction of the kiln proper forms no part of my invention, and for that reason its construction is but briefly referred to.

The reference-numerals 12 and 13 designate two downwardly-extending parallel bolt-irons which pass through the flange 6 of the plate 5. Each bolt-iron is provided with a sleeve 14, resting upon the upper face of the flange 6 and abutting against the head 15 thereof, whereby the bolt is supported. Similar sleeves 16 are arranged upon the lower ends of the bolts to form a bearing for the upper faces of the shears 17 and 18, which are carried by said bolts at their lower ends and at the rear ends of the shears.

19 designates a bolt-iron similar to those indicated by the reference-numerals 12 and 13 and diametrically opposite thereto, which, in conjunction with those just referred to, carries the ring or shear supporting plate 20, comprising a circular disk engaging the free ends thereof, so that any tendency of the shears to sag from the excessive weight in the cooling-chamber will be obviated.

It will be noticed that the shears, which may be of any common construction, are pivotally connected to the bolts 12 and 13 and are held snugly against the lower edge of the supporting-plate 5 by the ring 20. When they are operated by their handles 21 and 22, they will not become displaced.

In the modified form shown in Figs. 5 and 6 the plate 20^a and the flange 6^a are rectangular, as is also the flange 7^a. This form might be desirable in some instances, although the preferred form is illustrated in Figs. 1 to 4, inclusive.

From the foregoing description it will be seen that by the use of my invention a kiln will be provided with a safe and convenient

base, so that lime or other material may be drawn from the cooling-chamber quickly and without danger and that the many inconveniences resulting from the employment of the iron or steel hopper now generally used will not result.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

10 1. A base or discharge-bottom for kilns or ovens for the burning of lime or other like material comprising a base-plate having a central opening and an annular flange engaging a suitable support, two downwardly-
15 extending bolt-irons projecting from said plate, shears pivotally carried thereby, a third bolt-iron also carried by the plate, and a

shear-supporting ring connected to the lower ends of all the bolt-irons and designed to prevent sagging of the shears.

20 2. The combination with two parallel walls to form a foundation, of transverse rails positioned across their top edges, a plate 5 positioned on the rails and supported by the flange 6, two oppositely-operated shears pivotally connected to the flange 6 and a supporting-ring 20 also carried by the flange for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ADIE A. STEVENS.

Witnesses:

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