

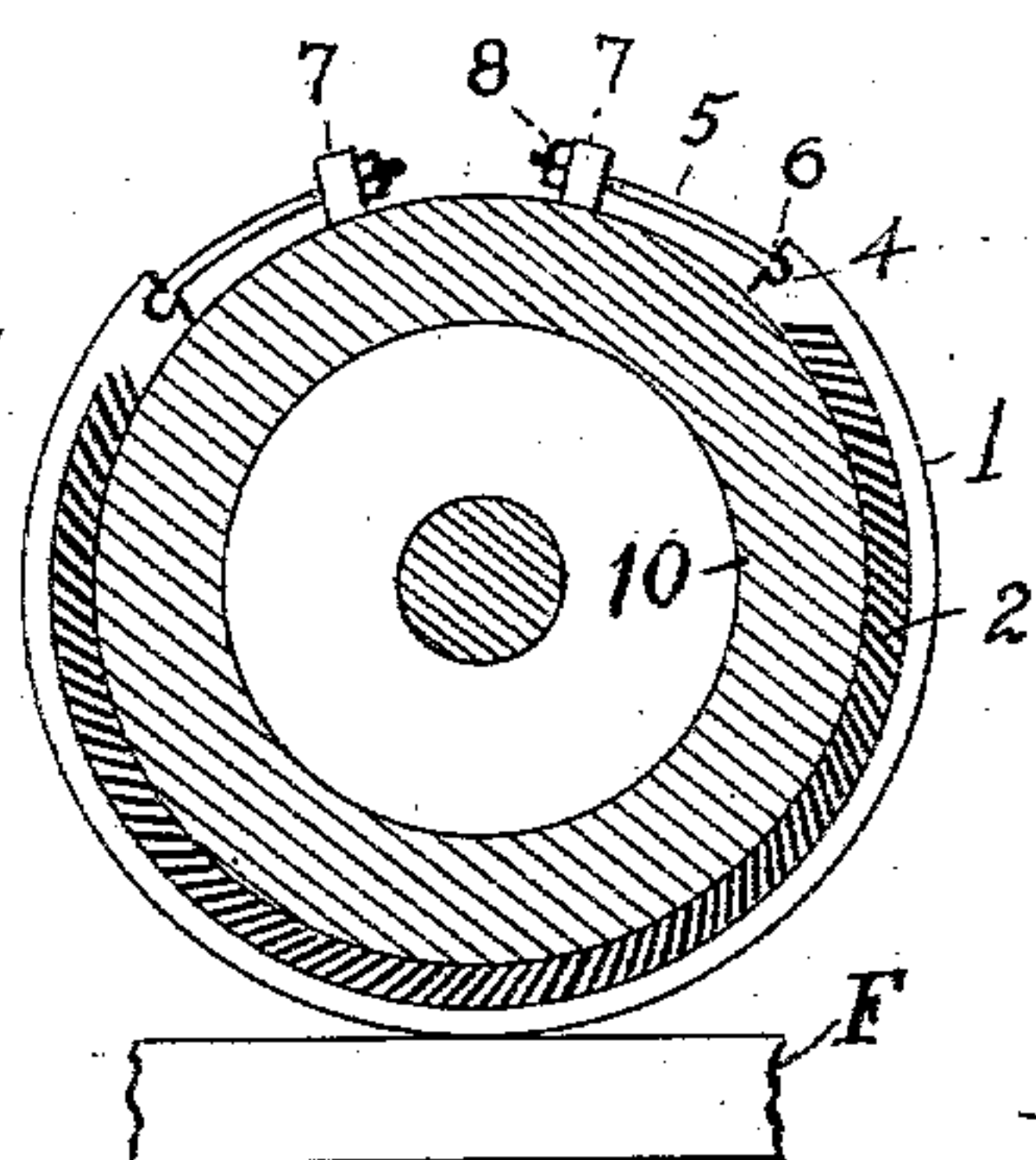
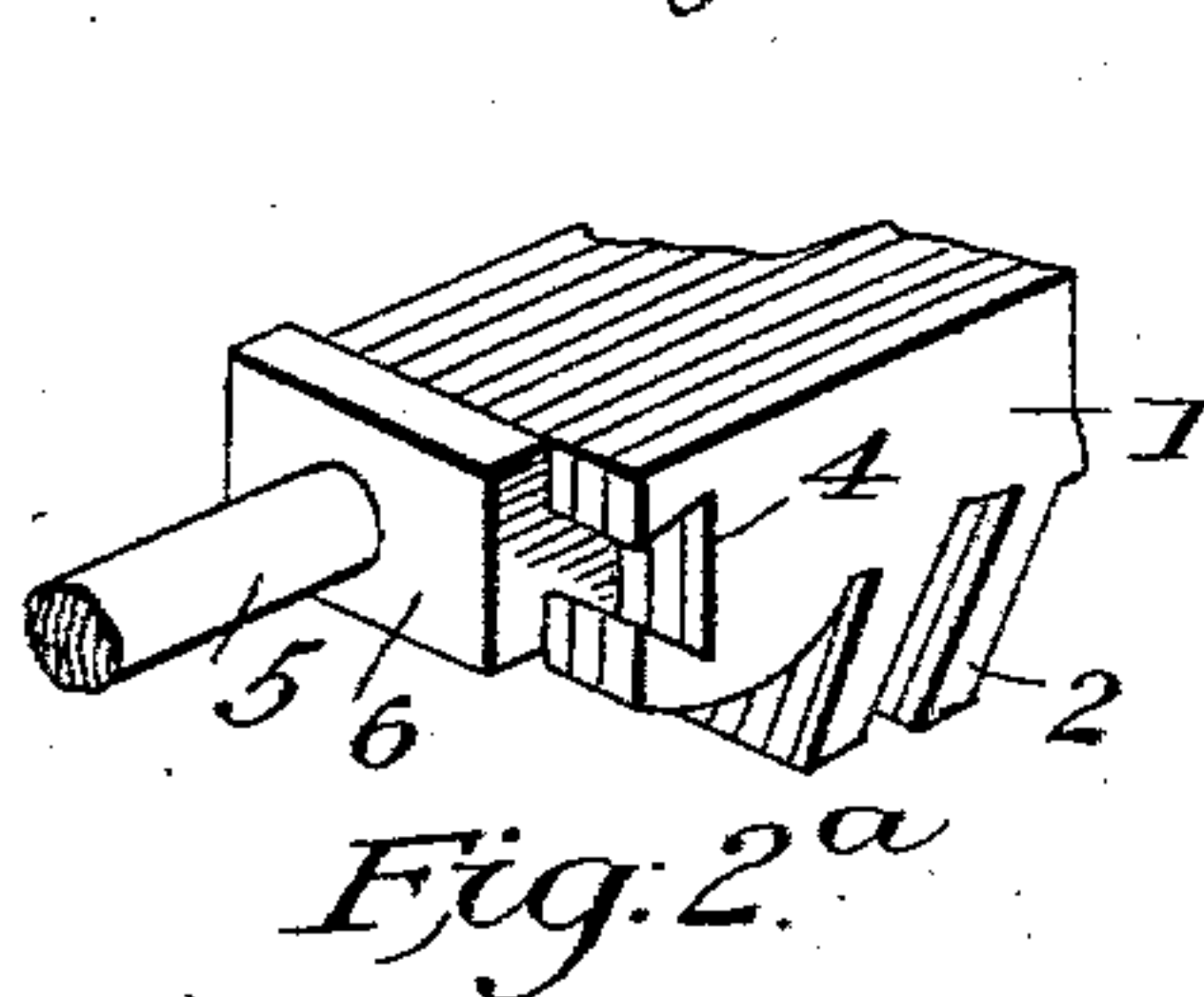
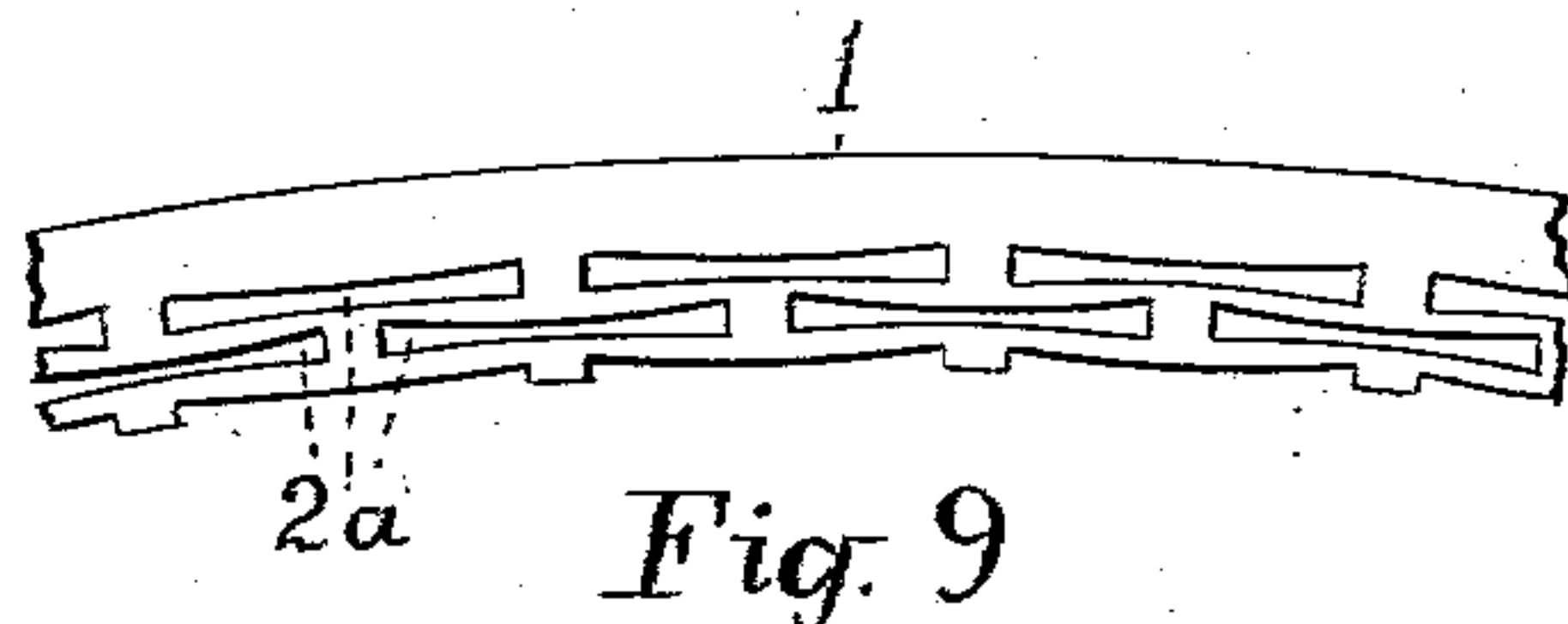
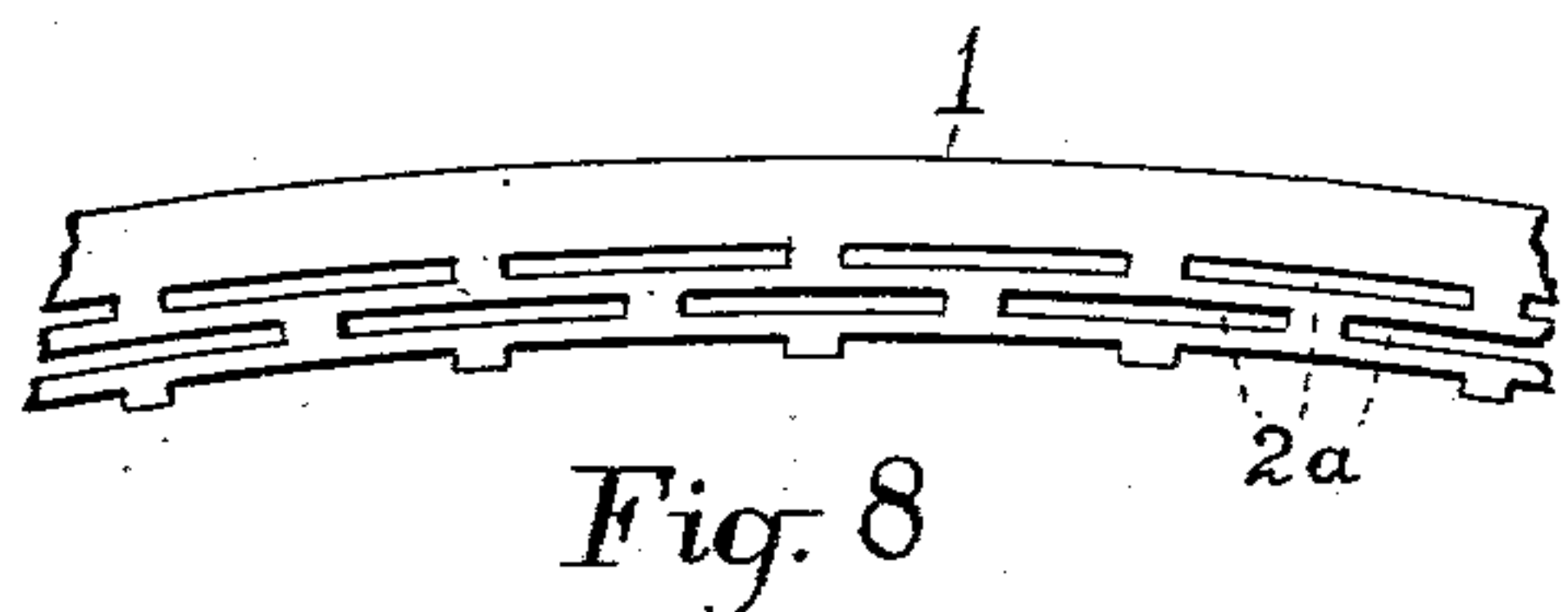
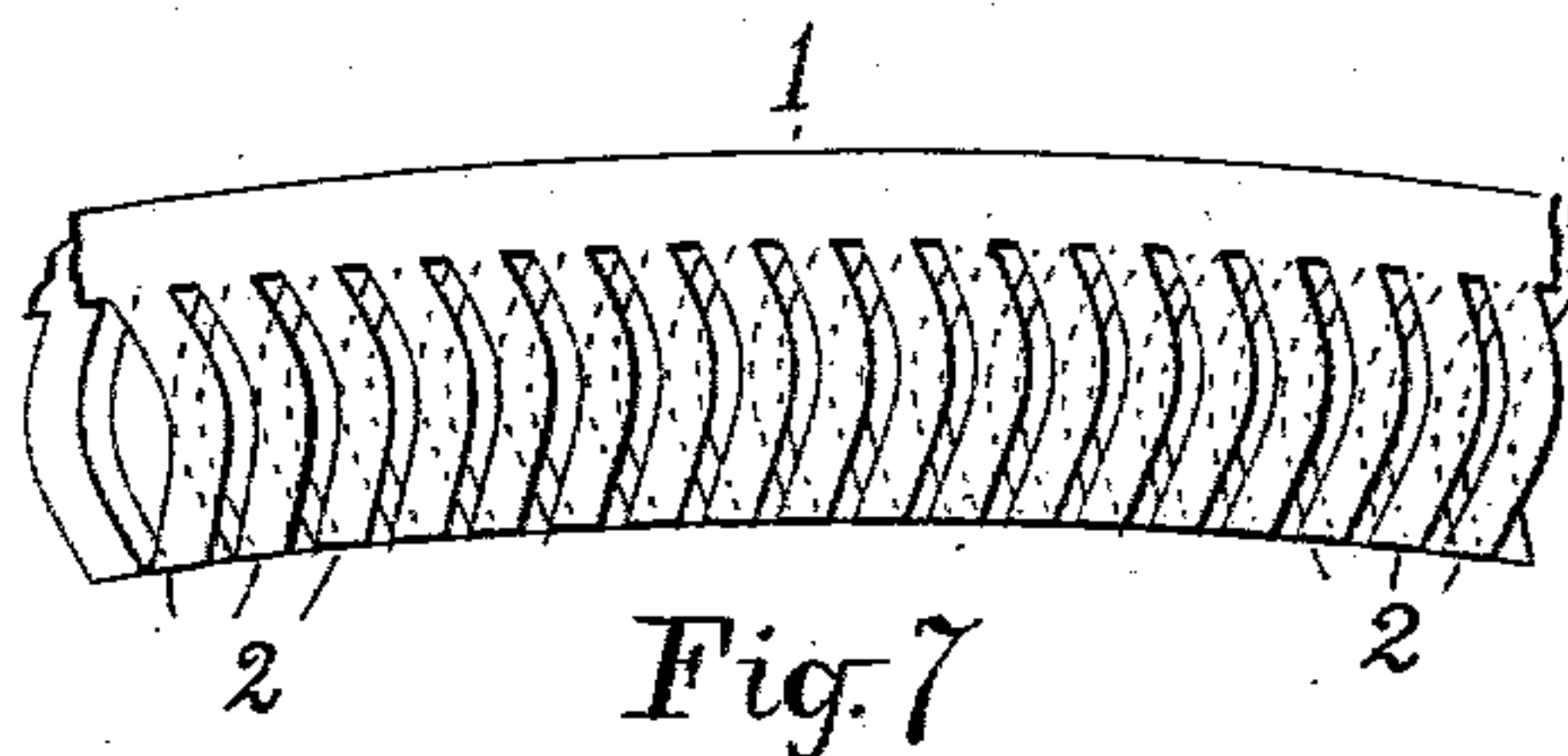
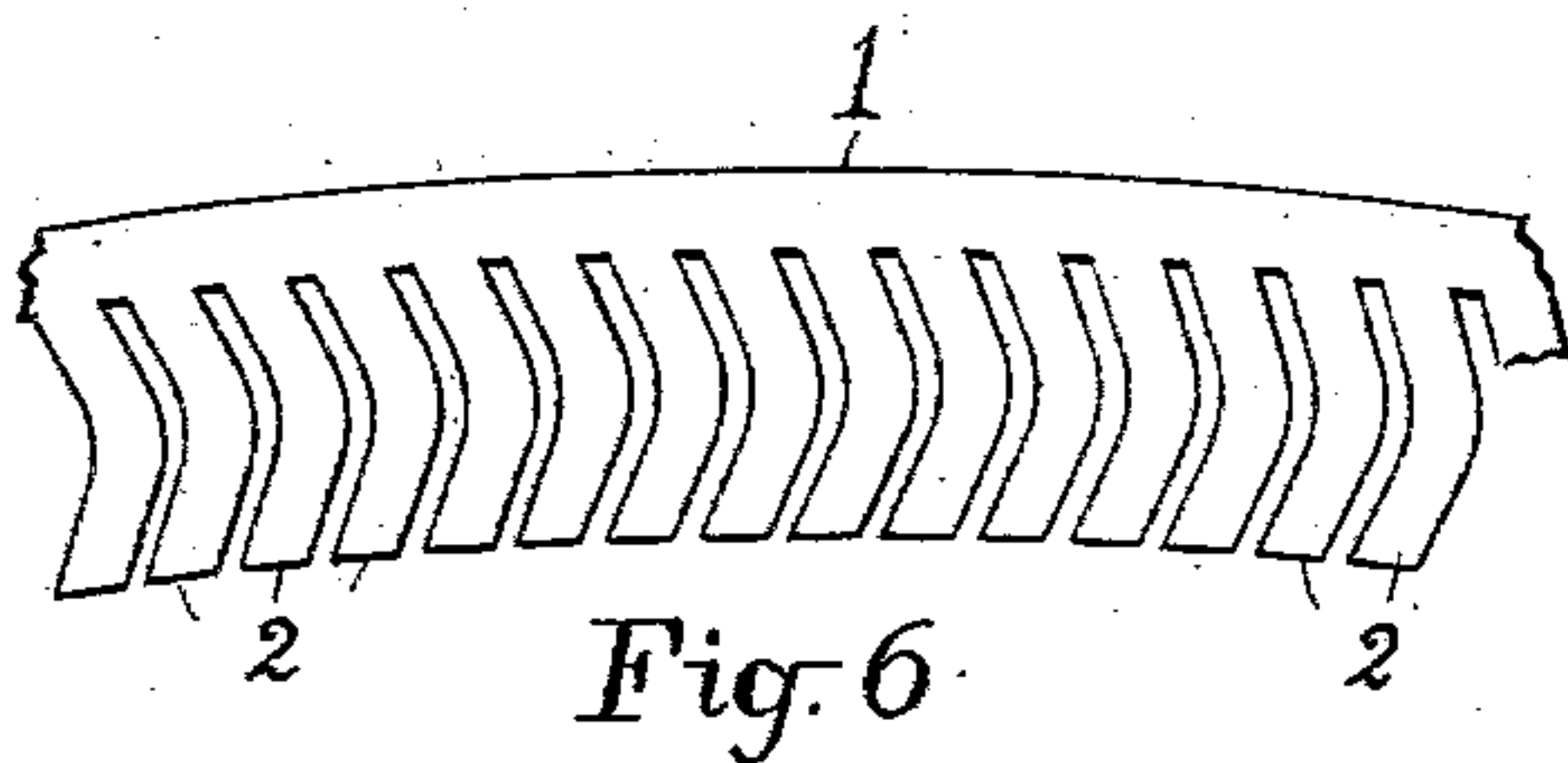
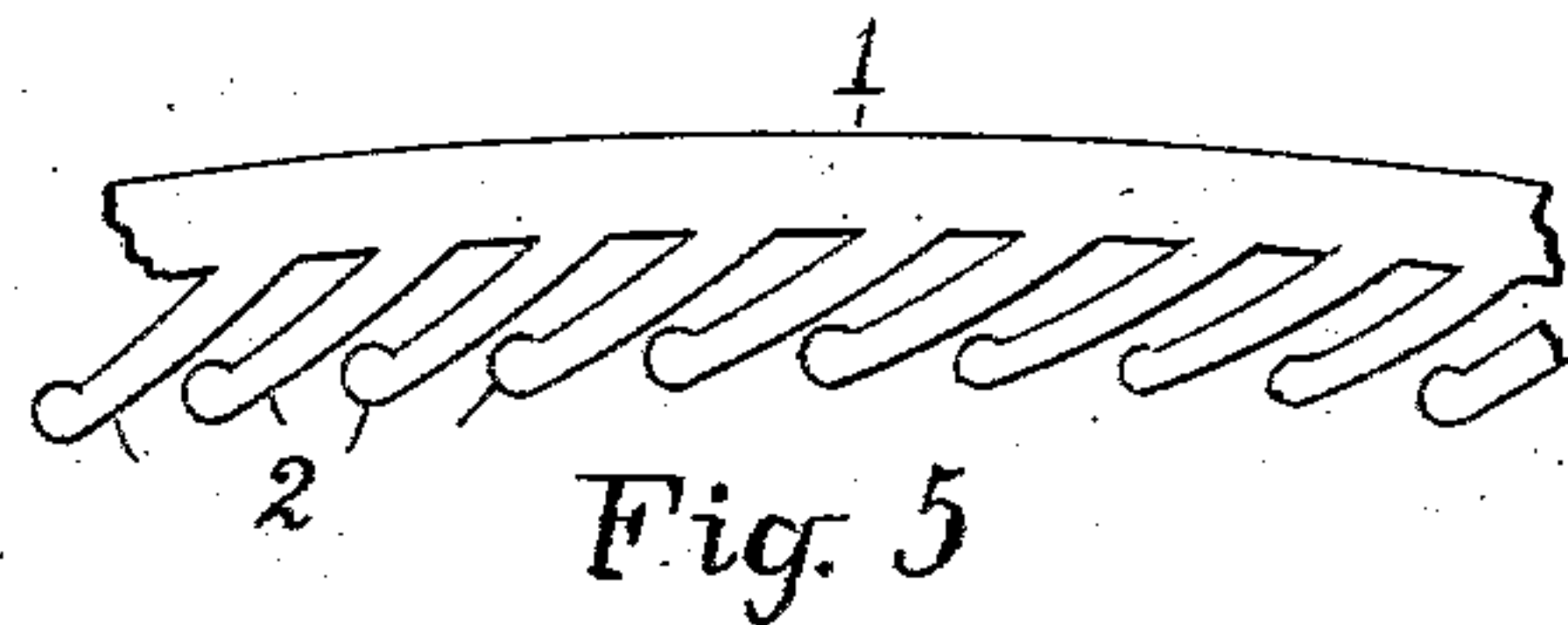
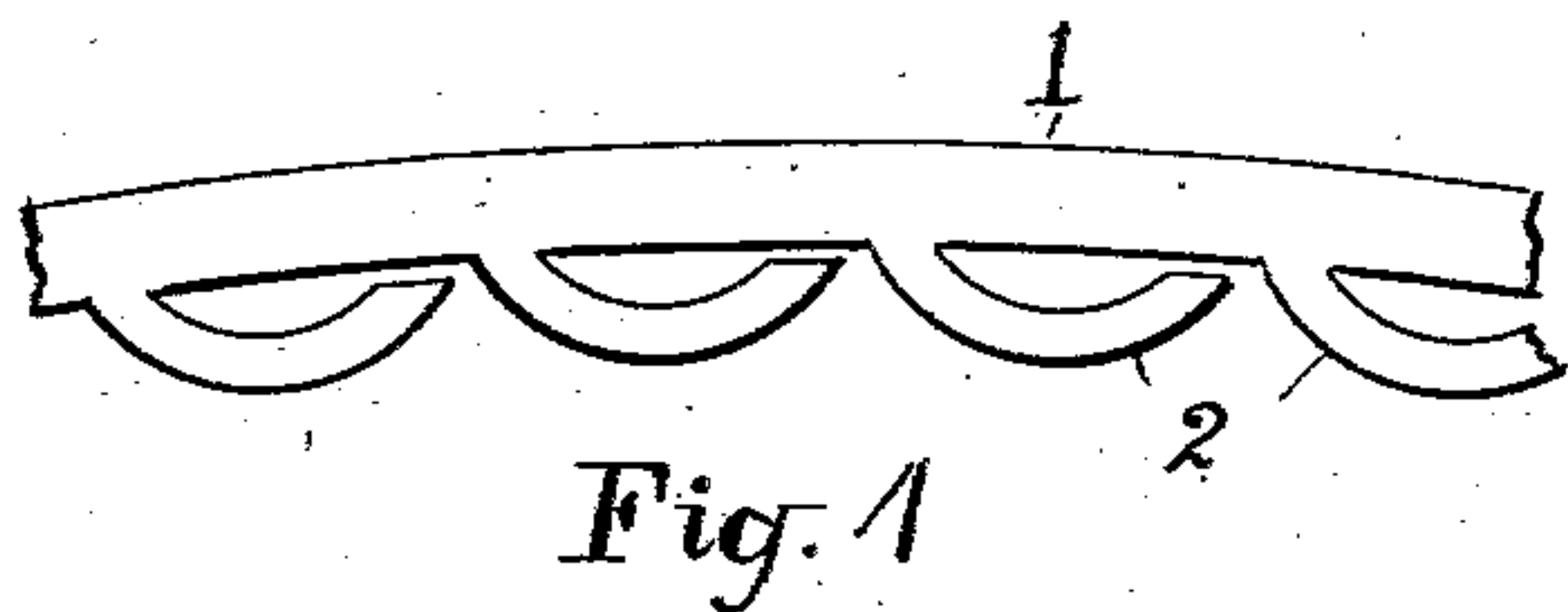
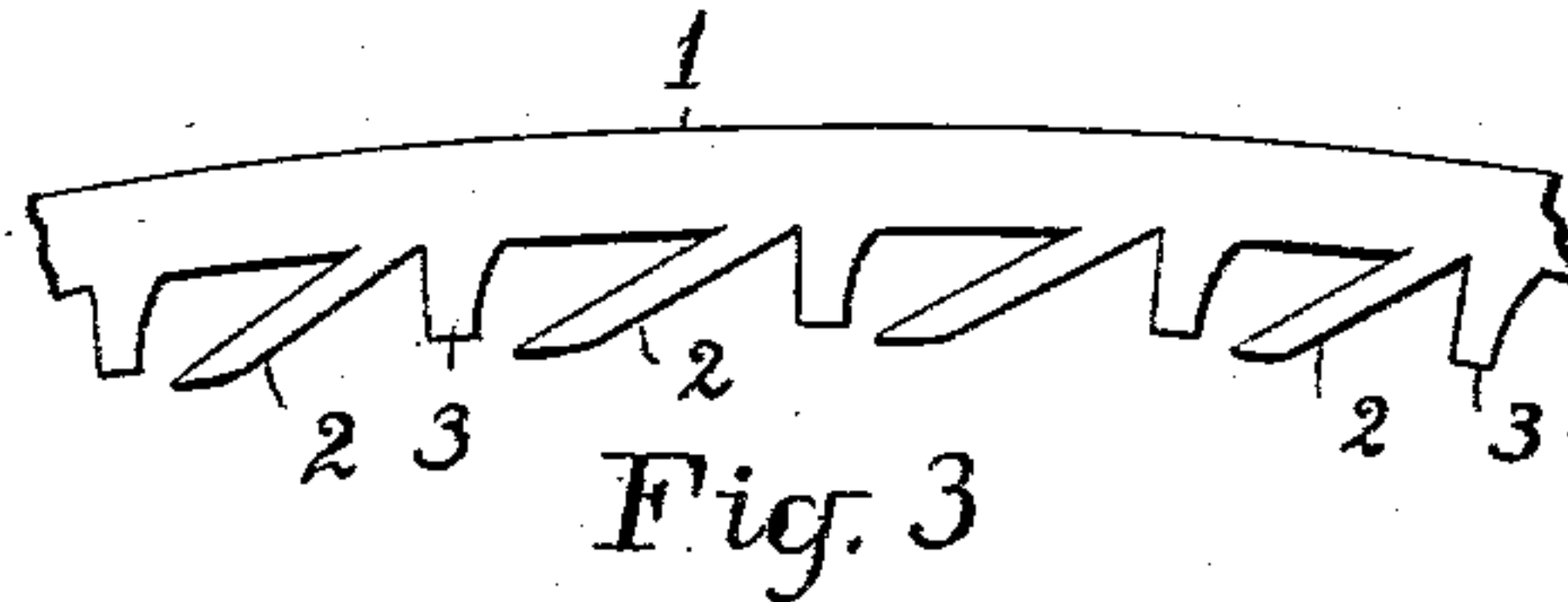
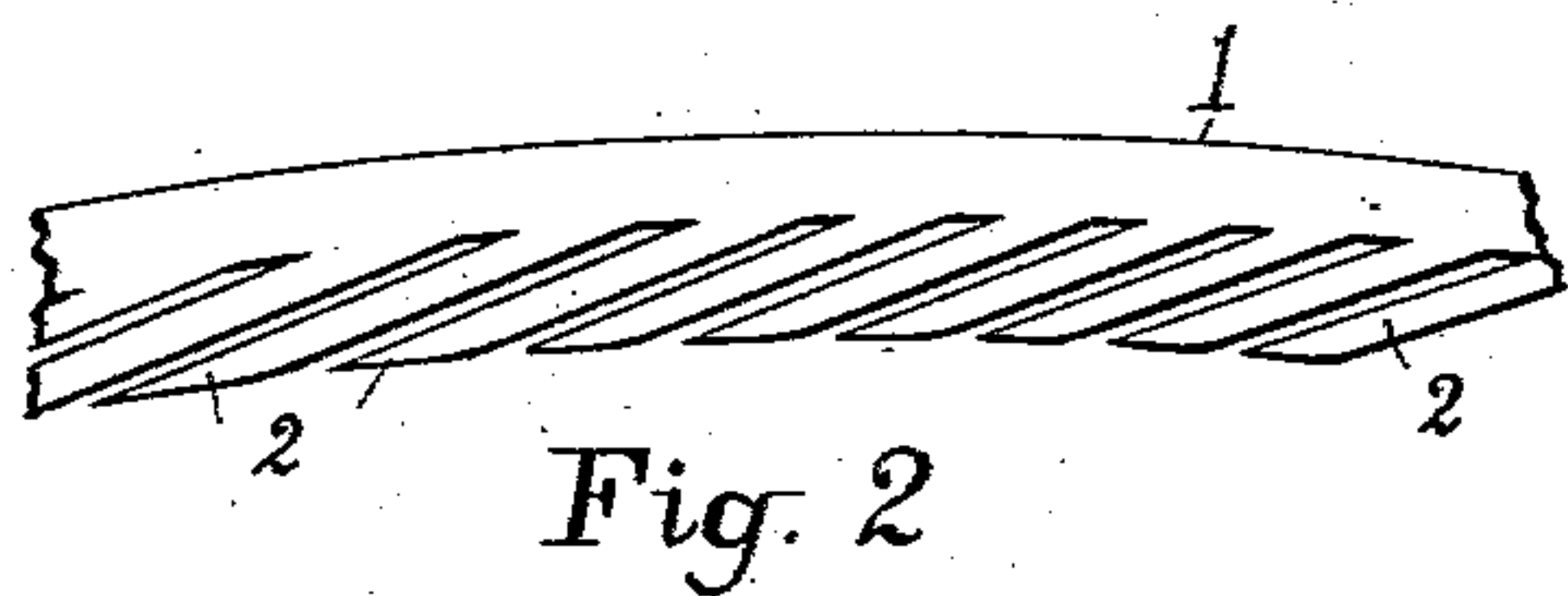
No. 743,760.

PATENTED NOV. 10, 1903.

M. L. SEVERY.
PRINTING PRESS.

APPLICATION FILED APR. 30, 1900.

NO MODEL.



Witnesses;

Sam M. Abbott

John O. Temple

Inventor,

Melvin L. Severy;

Fig. 1

By

A. B. Pham.

Kennedy & Kennedy
His Attorneys

UNITED STATES PATENT OFFICE.

MELVIN L. SEVERY, OF ARLINGTON HEIGHTS, MASSACHUSETTS, ASSIGNOR
TO AUTOMATIC TYMPAN COMPANY, A CORPORATION OF NEW YORK.

PRINTING-PRESS.

SPECIFICATION forming part of Letters Patent No. 743,760, dated November 10, 1903.

Application filed April 30, 1900. Serial No. 14,924. (No model.)

To all whom it may concern:

Be it known that I, MELVIN L. SEVERY, a citizen of the United States, residing at Arlington Heights, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Printing-Presses, of which the following is a full, clear, and exact description.

In a companion application (designated as Case B) I have set forth an impression-surface consisting of narrow ribbon-like elements or trusses set closely together on edge and supported upon an elastic cushion.

The object of this invention is the construction of means whereby a separate cushion may be dispensed with for the support of these trusses and the latter be made to carry within themselves the means for elastically yielding to pressure, and thereby to conform to the unevenness of the printing-surface of the printing-press.

Referring to the drawings forming part of this specification, Figure 1 is a transverse section of a cylindrical impression-surface made in conformity with my invention. Fig. 2 is a side view of a section of my preferred form of truss. Fig. 2^a is a perspective view illustrating my means for terminally fastening said trusses. Fig. 3 is a similar view of a truss having stops for limiting the extent of its yield. Figs. 4 and 5 are similar views of other modifications of the truss. Figs. 6 and 7 are similar views of trusses having their integral spring-fingers made with both extremities of each in the same vertical line. Figs. 8 and 9 illustrate trusses made integrally resilient by means of closed slots.

In the construction of the integrally resilient truss or element shown in Fig. 2 I take a thin ribbon of spring metal and either saw or stamp it into what may be roughly described as a comb with oblique teeth. The teeth or spring-fingers 2 make quite an acute angle with the body of the truss 1 and are made wide or narrow, according to the degree of resilience required for the truss.

Fig. 1 shows the method of applying the trusses to an impression member, the method being practically identical for either a flat or

cylindrical impression member, although the latter is the form here illustrated. The impression cylinder or support 10 has its surface hard and smooth, with the ends of the spring-fingers contacting therewith, and consequently the outer edges of the trusses constitute the impression-surface. These trusses are stretched upon the cylinder 10 by having their extremities formed with a dovetail notch 5 engaged by members 6, which are held by the screw-rods 5, the latter being adjustably secured to the anchorages 7 by nuts 8. Inasmuch as the elements or trusses 1 are quite thin I prefer to engage several upon a single dovetail member 6, which is adjustably held by a screw-rod 3.

In the construction of truss shown in Fig. 3 the spring-fingers 2 are much less numerous, and stop-fingers 3 are adapted for limiting the extent of the trusses' yield, said stop-fingers contacting with the impression member after a certain degree of yield on the part of the trusses, and thereby preventing the trusses from being depressed so far as to give the fingers 2 a permanent set.

As shown in Fig. 4, the spring-fingers 2 may be curved until their ends almost contact with the under edge of the truss 1, thereby limiting the yield of the fingers. As in Fig. 5, each spring-finger 2 may be terminally broadened nearly into contact with its neighbor, thus in another manner limiting the yield of the truss.

In the construction illustrated in Figs. 6 and 7 the spring-fingers are made centrally bent with the extremity of each finger in the same vertical line with its juncture with the truss. This causes each finger to bend centrally instead of at its juncture with the truss alone. As indicated in Fig. 7, the trusses should be reversed in order to prevent their fingers from creeping. This is preferably done with all the forms of truss having integral resilience excepting those shown in Figs. 8 and 9.

In the last-named figures the trusses 1 are given the required resilience or yield by means of the slots 2^a formed therein, the unslotted parts or necks coming above the centers of

the slots below. The construction illustrated in Fig. 9 is substantially the same, the only difference being in the shape of each slot, by means of which the extent of the yield of the trusses is given a positive limit.

The advantage of these integrally-resilient trusses consists mainly in their enabling me to provide an impression-surface of independent lineal areas every part of which is wholly metallic, thereby dispensing with all rapidly-deteriorating rubber cushions, the metallic springs being so arranged that they cannot be bent beyond their limit of set and are therefore practically good for any amount of use.

What I claim as my invention, and for which I desire Letters Patent, is as follows, to wit:

1. An impression member constituted by a multiplicity of deep, narrow, slightly-resilient elements having the backing therefor formed by the longitudinally-oblique fingers integral therewith and located in the same plane, substantially as described.

2. The combination with a suitable printing-surface, of an impression member constituted by a multiplicity of slightly-resilient elements formed with the resilient fingers and

the stop-fingers; and a non-yielding support therefor, substantially as described.

3. The combination with a suitable support, of an impression-surface constituted by a multiplicity of elongated, slightly-resilient elements having the dovetail notches in their ends, tightening devices engaging said notches, and a yielding backing between said elements and support, substantially as described.

4. The combination with a suitable support, of an impression-surface constituted by a multiplicity of deep, narrow, elongated, slightly-resilient elements each having its own integral resilient backing, and formed with the terminal dovetail notches, and tightening devices engaging said notches, substantially as described.

In testimony that I claim the foregoing invention I have hereunto set my hand this 24th day of April, 1900.

MELVIN L. SEVERY.

Witnesses:

LEON M. ABBOTT,
A. B. UPHAM.