

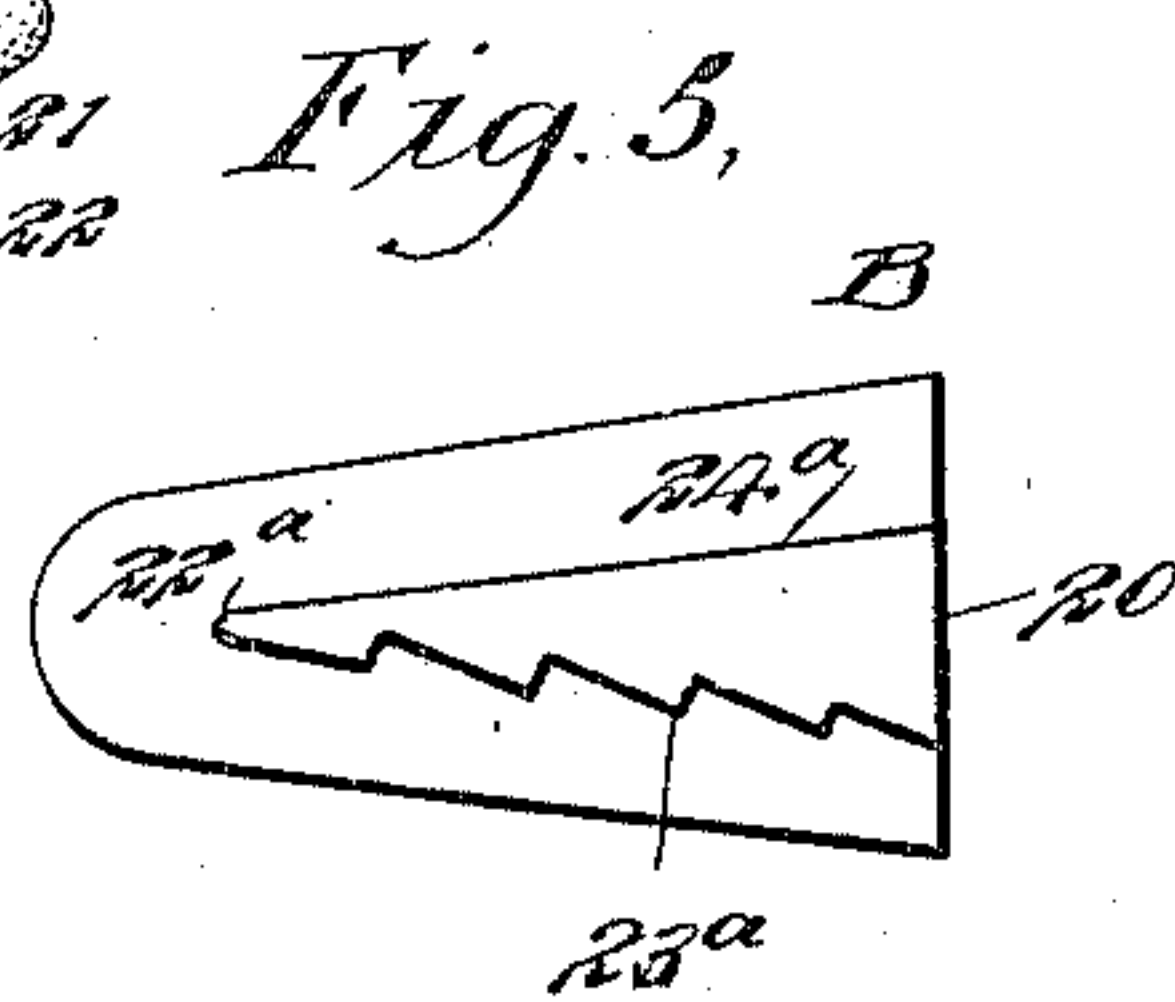
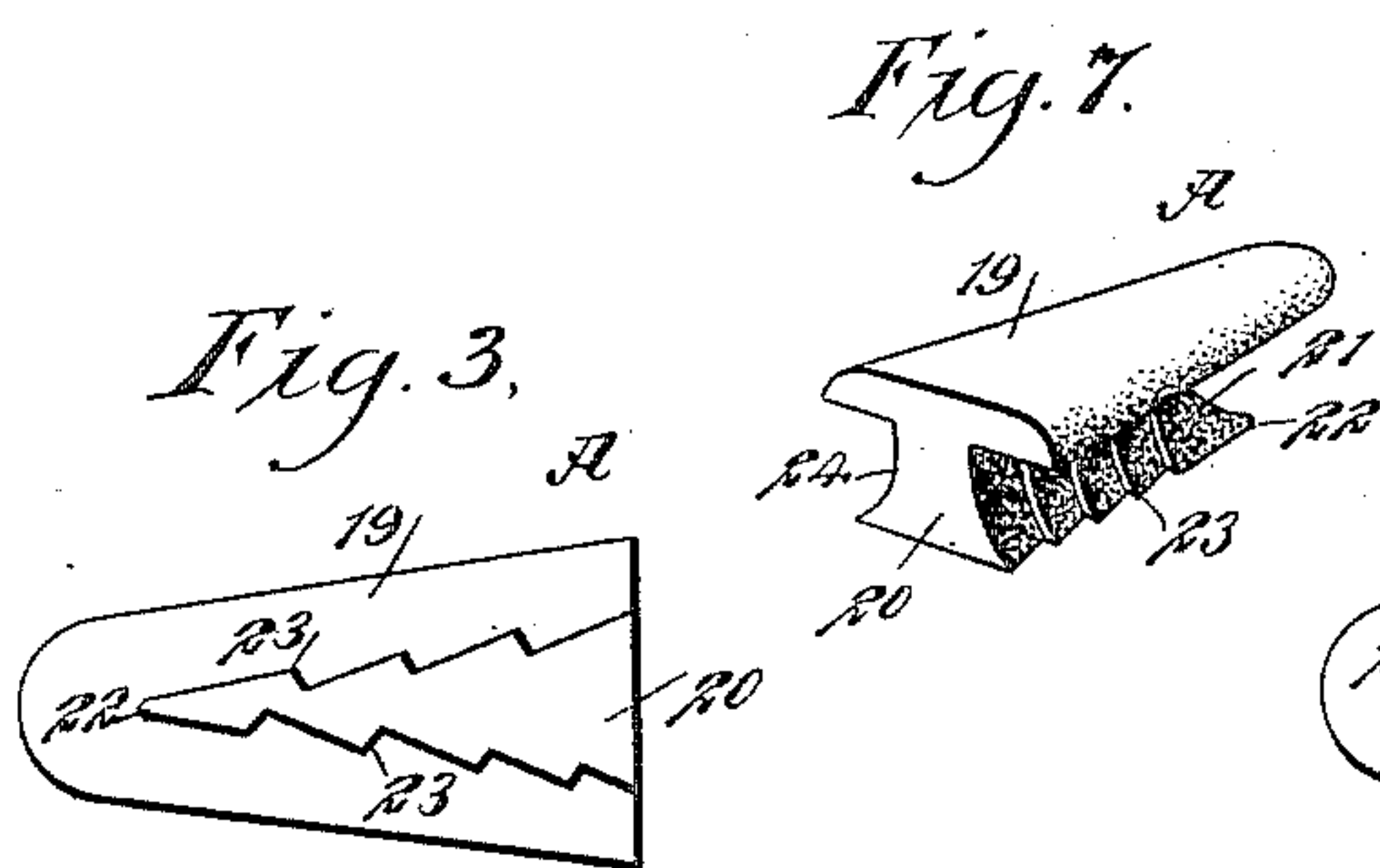
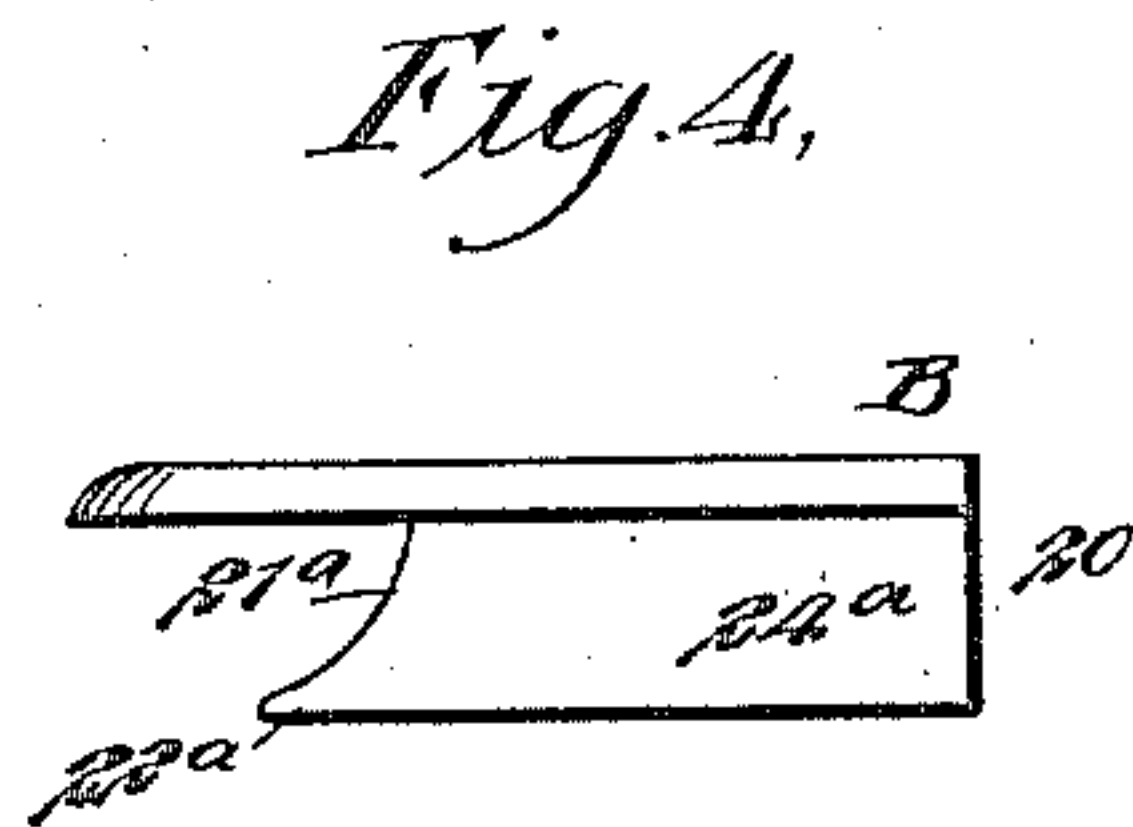
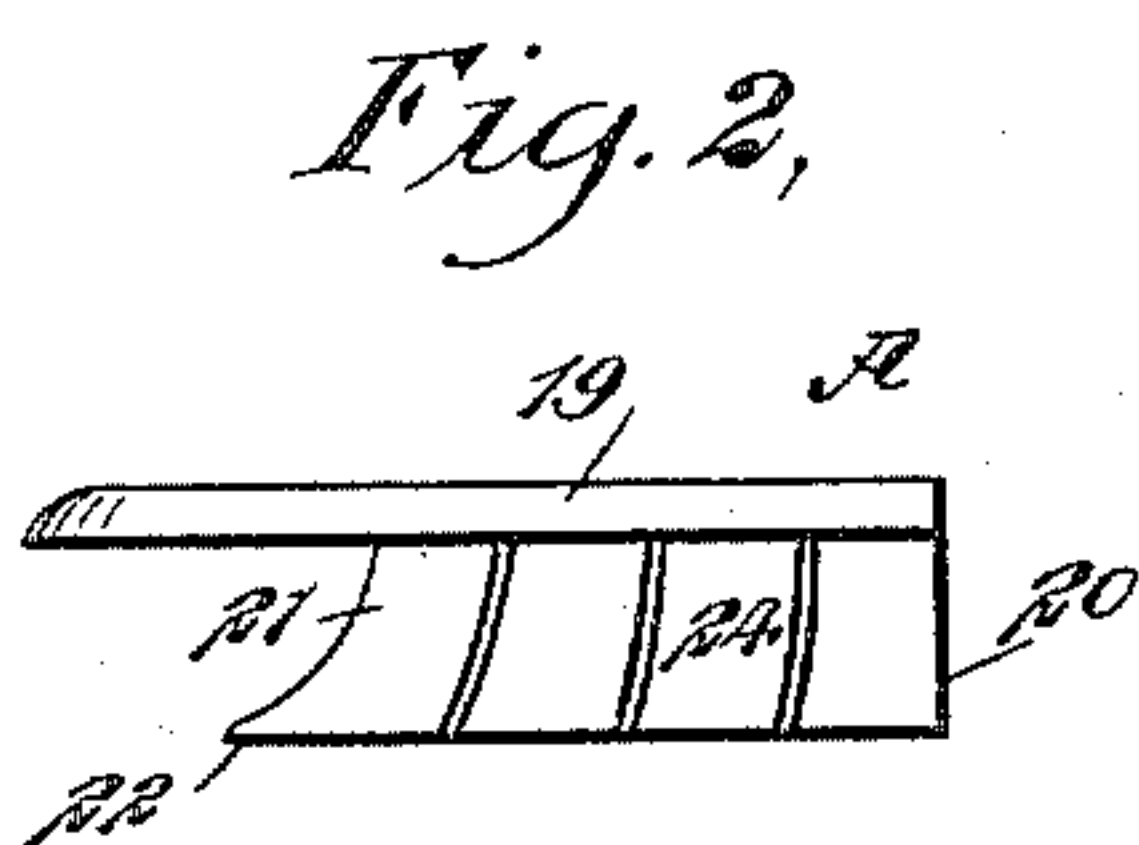
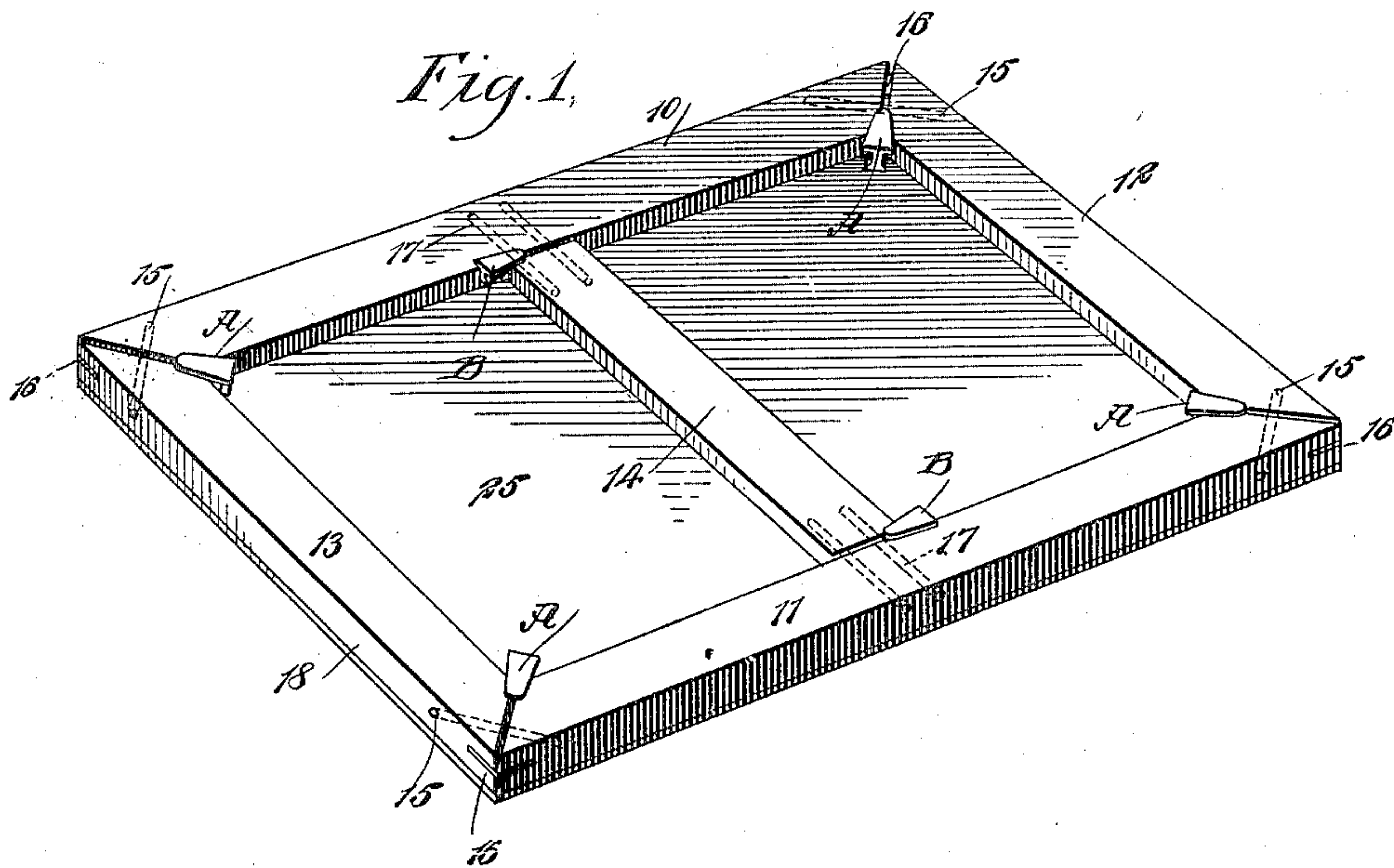
No. 659,994.

A. F. TAIT.
CANVAS STRETCHER.

Patented Oct. 16, 1900.

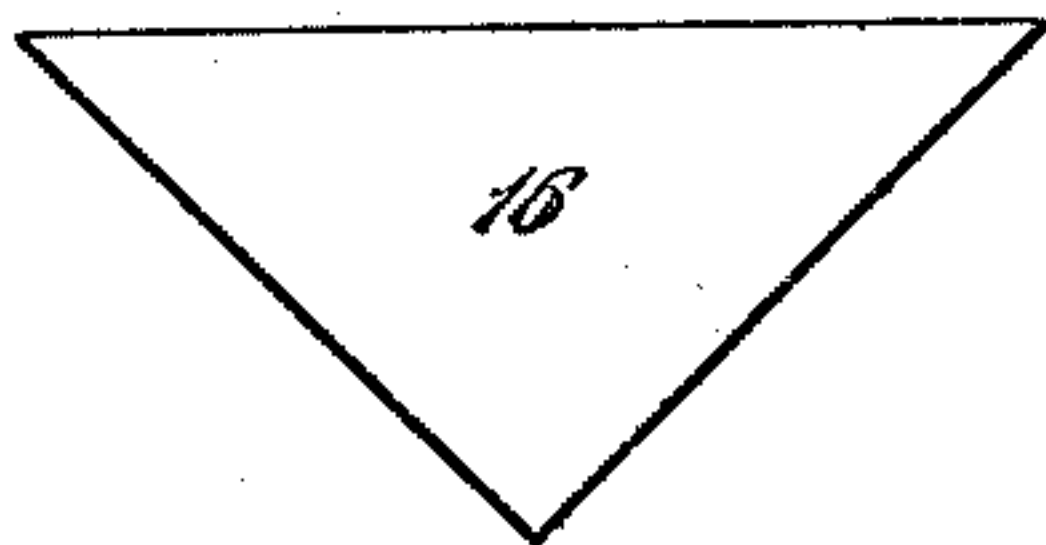
(Application filed Mar. 17, 1900.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

ARTHUR F. TAIT, OF YONKERS, NEW YORK.

CANVAS-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 659,994, dated October 16, 1900.

Application filed March 17, 1900. Serial No. 9,064. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR F. TAIT, a citizen of the United States, and a resident of Yonkers, in the county of Westchester and State of New York, have invented a new and Improved Canvas-Stretcher, of which the following is a full, clear, and exact description.

One purpose of the invention is to so construct a stretcher for artists' canvases that the members of the frame may be uniformly, quickly, and conveniently extended or expanded and positively held in adjusted position through the medium of properly-applied keys.

A further purpose of the invention is to provide a means for strengthening the corners of the stretcher and maintaining them in proper shape, and also to provide means for bracing the central portion of the stretcher and expanding the outer members of said stretcher at such point in about the same ratio as the expansion at the corners of the stretcher.

Another purpose of the invention is to place a cardboard, strawboard, or other board upon the front face of the stretcher, which will afford an extended bearing for the canvas and a firm working surface for the artist.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of the improved device viewed from the rear. Fig. 2 is a side elevation of one of the corner-keys for the stretcher. Fig. 3 is a bottom plan view of the said key. Fig. 4 is a side elevation of the key adapted to be used in connection with the central or brace member of the structure. Fig. 5 is a bottom plan view of the key illustrated in Fig. 4. Fig. 6 is a plan view of the corner-plate used in connection with the outer members of the stretcher, and Fig. 7 is a perspective view of one of the corner-keys.

The body of the stretcher consists of two side bars or members 10 and 11 and end members 12 and 13, the ends of the members being mitered, so that they may closely fit together at their extremities. Preferably the construction of the body of the stretcher is completed by the addition of a transverse bar 14, which extends from one side member to the other, as illustrated in Fig. 1. At the corners of the stretcher, formed as stated, rods 15, preferably metal rods, are passed through the outer edge of one member into the opposing member, where the extremities of said members abut or approach each other. Thus it will be observed that these rods 15 are corner-rods, and the rods are so placed in the stretcher that the members of the frame may be forced apart without interfering with the position of the corner-rods.

The corners of the stretcher are further more strengthened and prevented from warping to any appreciable extent by the addition of corner-plates 16, one of which is shown in detail in Fig. 6. These corner-plates are of triangular form and are made to enter slots produced in the end portions of the outer members of the stretcher, between the front and back surfaces of said members, and when these outer members of the stretcher are properly brought together the slots in opposing members will be in registry, so that the corner-plates 16 may be readily introduced therein. These corner-plates do not interfere with the expansion of the members of the stretcher and, in conjunction with the corner-rods 15, lend considerable rigidity to the stretcher.

The cross-bar 14, as stated, is preferably placed at the central portion of the frame of the stretcher, and rods 17 are loosely passed through the side members 10 and 11 into the cross-bar 14 and may be secured in said cross-bar in any desired way. These rods 17 serve to connect the cross-bar with the outer members of the stretcher and yet will not prevent the cross-bar from interfering with the spreading of the main portion of the stretcher. The canvas is attached to the stretcher in any suitable or approved manner.

The members of the stretcher are forced apart through the medium of keys, keys A

being employed to enter the spaces between the abutting ends of the outer members of the stretcher, while other keys B are adapted to enter the spaces between the ends of the brace-bar 14 and the inner edges of the members 10 and 11 of the stretcher, as is illustrated in Fig. 1.

The keys A are illustrated in detail in Figs. 2, 3, and 7 and are preferably made of metal. Each key consists of a body 19, which usually approximates a triangle in shape, and a wedge-shank 20, which is made integral with the body 19 and extends from the heel or wider portion of the key to a point near the narrow or toe portion of the same. The wedge-shank 20 is concaved at its forward end, as at 21 in Figs. 2 and 7, and in bottom plan view the said wedge-shank 20 is more or less triangular. The shank 20 is provided at opposite sides with teeth 23, said teeth being in staggered arrangement, as shown in Fig. 3, and these teeth incline or spread outward in direction of the heel portion of the key, as is also shown in Fig. 3. The outer or narrow end of the wedge-shank 20 is provided with a point 22, and the side faces 24 of the wedge-shank are more or less concaved, so that the lower edges of the teeth 23 are sharp and extend beyond the horizontal plane of the upper portion of the shank, thus giving to the shank a wedge-shape form in cross-section. The narrow ends of the shanks of these keys are introduced into the spaces between the opposing ends of the outer members of the frame of the stretcher, and the keys are then driven outward, so that they will enter these spaces to a greater or less extent or until the frame of the stretcher has been sufficiently expanded to render perfectly taut the canvas connected therewith.

By making the shank of the key wedge shape in cross-section when it is driven to position there will be a wedging action between the lower toothed edge of the shank and the body of the key, thus producing a binding action and at the same time causing the key to take a straight course, so that the body of the key will always lie flat and be in engagement with the frame throughout its length.

It is obvious that after the keys A have been driven into the spaces between the ends of the members of the frame the teeth 23 will have such purchase upon the end surfaces of the members of the stretcher as to prevent the keys backing out or becoming loosened.

The keys B resemble the keys A, differing therefrom only in that one side 24^a of the wedge-shank 20 is straight, the opposite side being provided with teeth 23^a, which correspond to the teeth 23 of the keys A. The contracted or outer ends of the shanks 20 of the keys B are also provided with a concaved surface 21^a, corresponding to the surface 21 of the keys A, and the outer ends of the shanks of the keys B are provided at their

bottom portions with a point 22^a. The keys B are driven between the ends of the central brace-bar 14 and contiguous surfaces of the members 10 and 11 of the stretcher, and the flat surfaces or faces 24^a of the keys B engage with the inner longitudinal edges of the members 10 and 11 of the stretcher, while the teeth 23^a of the keys B engage with the end portions of the brace-bar 14. Under this arrangement it is obvious that an equal tension or expansion may be produced or brought about not only at the corners of the stretcher, but also at its central part, and that the brace-bar 14 tends to materially strengthen the stretcher and lend rigidity thereto.

Before attaching the canvas to the stretcher a board 25, which may be made of paper or other material, is placed loosely upon the front face of the stretcher, and this board serves to protect the canvas, giving an extended bearing thereto, and likewise provides the artist with a firm surface upon which to work.

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

1. In a stretcher for artists' canvas, a key, comprising a body and a wedge-shank the body being at the top of the shank and wider than the same, the outer or contracted end of which shank is concaved, terminating in a point, and teeth formed upon a side surface of the shank, which teeth incline in direction of the heel portion of the key, the said teeth at the lower portion of the shank extending beyond the plane of their upper portion, for the purpose set forth.

2. In a stretcher for artists' canvas, a key comprising a body, and a wedge-shaped shank narrower than the body and projecting from the lower face of the same, the shank being provided with teeth upon one side face, said teeth being inclined in direction of the heel of the shank, and extending at the lower portion of the shank beyond the plane of the upper portion, substantially as described.

3. In a stretcher for artists' canvas, a key comprising a body, and a wedge-shaped shank narrower than the body and projecting from the lower face of the same, the shank having its lower portion enlarged and provided with teeth on the side faces thereof, said teeth being inclined in direction of the heel of the shank, substantially as described.

4. In a stretcher for artists' canvas, a key consisting of a body, and a wedge-shaped shank narrower than the body and projecting from the lower face thereof, the shank having its lower portion enlarged and its front end at the lower portion pointed and provided with teeth on its side faces, the teeth being staggered and inclined in direction of the heel of the shank, substantially as described.

5. A stretcher for artists' canvas, comprising side and end members having mitered ends separably connected together, and keys,

each comprising a body, and a wedge-shaped shank having its lower portion enlarged narrower than the body and projecting from the lower face thereof, the shank being provided
5 with teeth on its side faces, said teeth being inclined in direction of the heel of the shank, substantially as described.

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

ARTHUR F. TAIT.

Witnesses:

J. FRED. ACKER,
ARTHUR J. B. TAIT.