

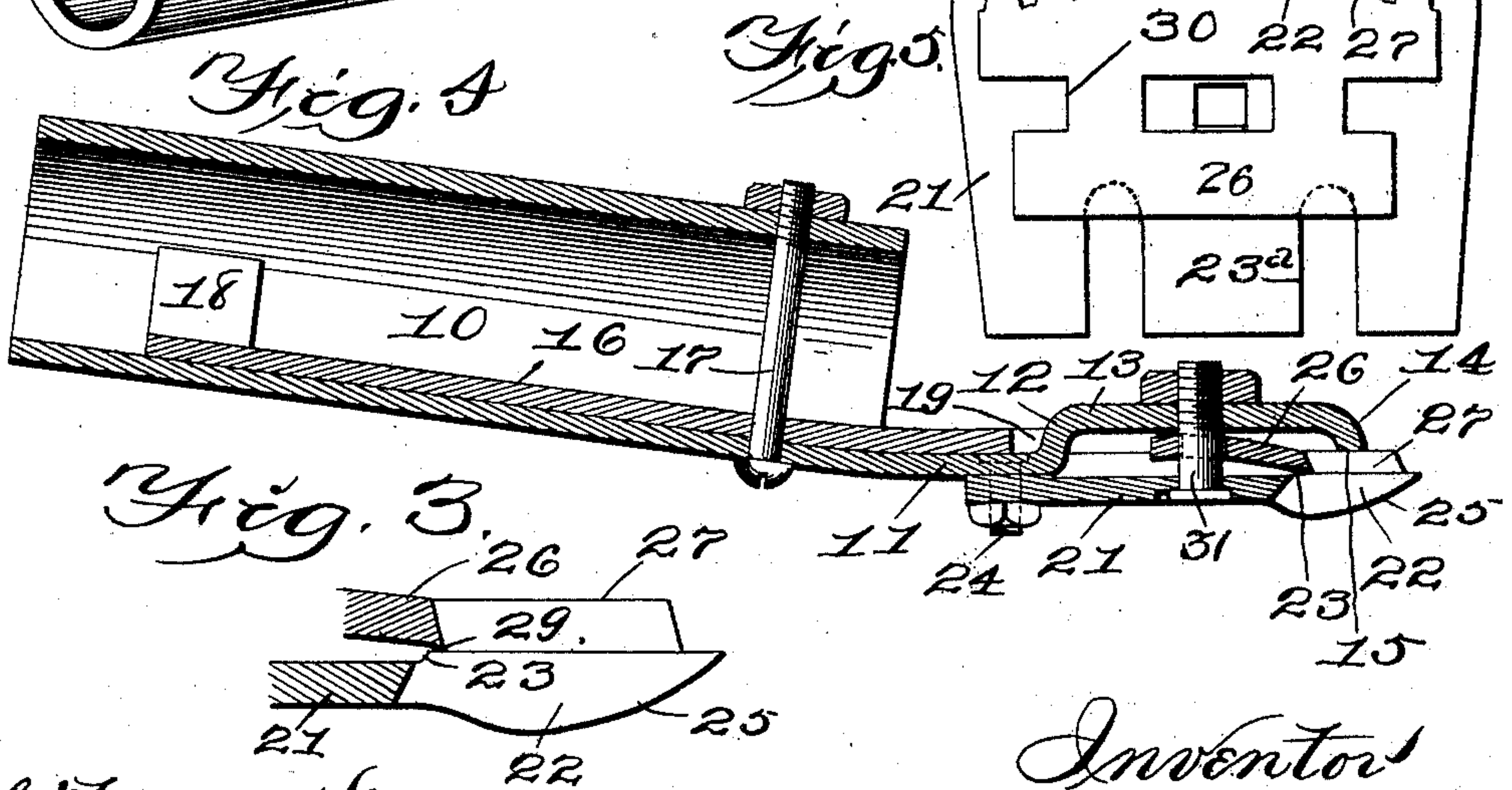
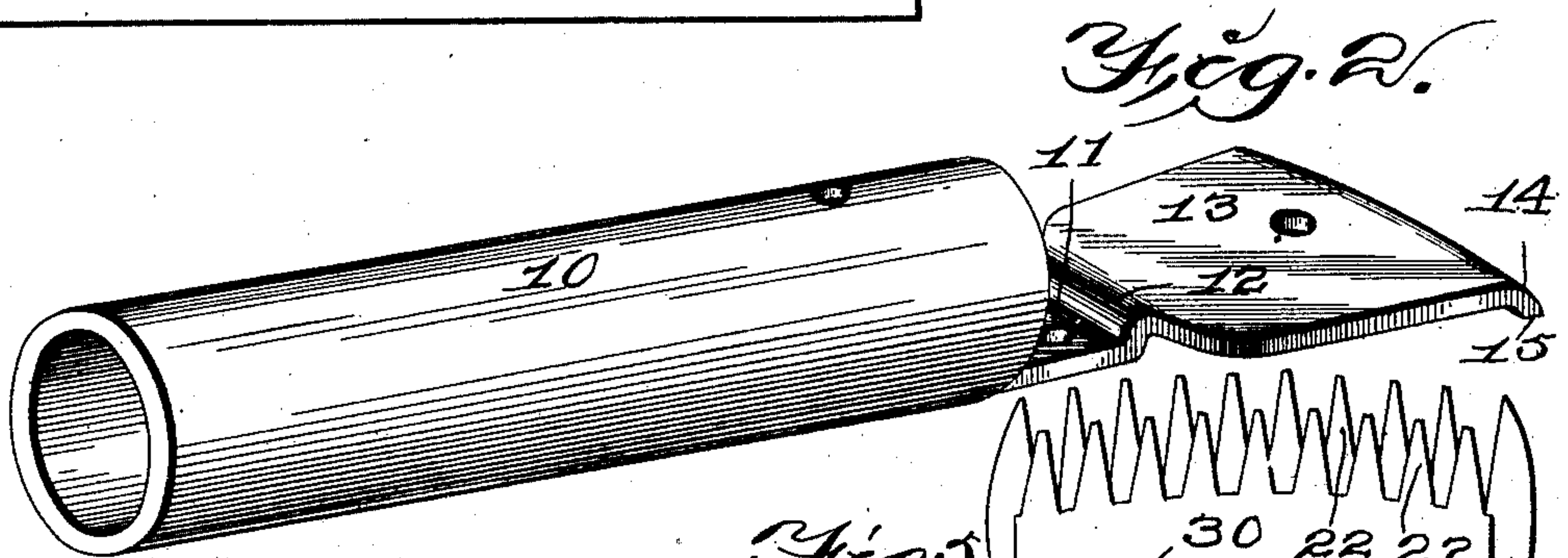
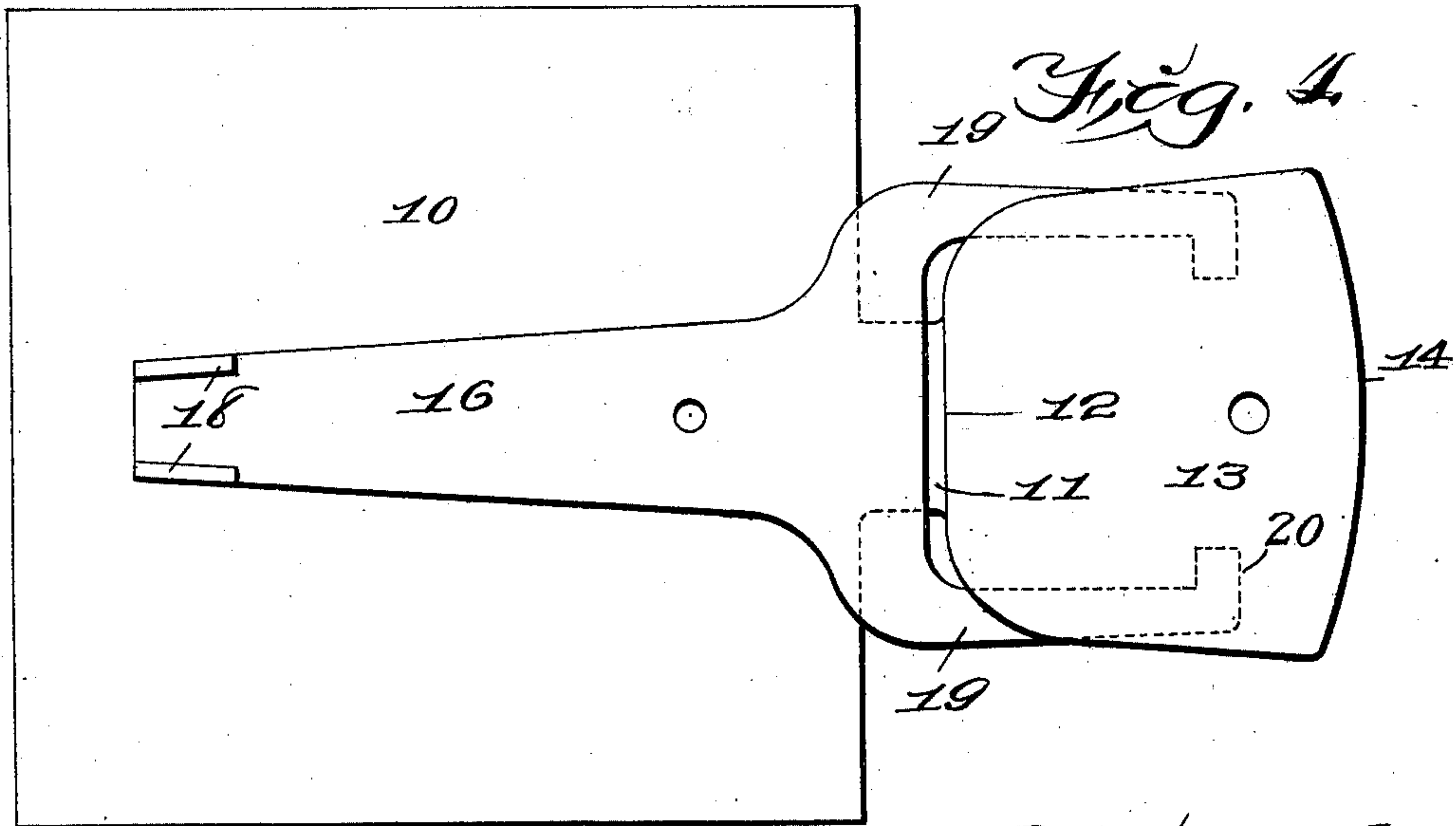
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R. SHEDENHELM.
ANIMAL SHEARS.

(Application filed Nov. 18, 1901.)

(No Model.)



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UNITED STATES PATENT OFFICE.

ROBERT SHEDENHELM, OF DES MOINES, IOWA.

ANIMAL-SHEARS.

SPECIFICATION forming part of Letters Patent No. 711,129, dated October 14, 1902.

Application filed November 18, 1901. Serial No. 82,640. (No model.)

To all whom it may concern:

Be it known that I, ROBERT SHEDENHELM, a citizen of the United States, residing at Des Moines, in the county of Polk and State of Iowa, have invented certain new and useful Improvements in Animal-Shears, of which the following is a specification.

The objects of my invention are first to provide a shears of this class that shall be of simple, durable, and inexpensive construction, and more specifically it is my object first to provide a combined handle and shears-frame made complete from a single piece of sheet metal.

A further object is to provide a shears of this class in which the oscillating or reciprocating member has frictional contact only with the stationary shear member at the toothed or cutting surfaces of both the movable and stationary members—that is to say, that only the teeth of the stationary and movable members engage each other. Hence there is a minimum of friction, and the cutting-surfaces are always held firmly and closely together, so that sand, hair, or other foreign substances cannot enter between the cutting-teeth in such manner as to hold them apart and hence render them inoperative, and, further, all wear on the contacting surfaces of the teeth will tend to sharpen the teeth.

A further object is to provide means whereby the stationary shear member may be adjusted longitudinally relative to the movable member, and the under surface of the stationary member is tapered or inclined from a minimum of thickness at the points of the teeth to a maximum thickness at the base of the teeth, so that by a longitudinal adjustment of the stationary shear member the shears may be made to cut at different distances from the body of the animal being operated upon—that is to say, that the hair on the animal may be cut at any desirable distance from the animal's body.

My invention consists in certain details in the construction, arrangement, and combination of the various parts of the device whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 shows a plan view of the machine-

frame with the tubular handle open and the operating-lever in position. Fig. 2 shows in perspective the machine-frame. Fig. 3 shows an enlarged detail vertical sectional view through the shear members. Fig. 4 shows a vertical central sectional view of the complete device, and Fig. 5 shows a plan view of the cutting members.

Referring to the accompanying drawings, I shall first describe the machine-frame. This frame is made from a single piece of sheet metal of substantially the contour shown in Fig. 1. One end of this machine-frame is made of tubular form to provide a handle 10, and adjacent to the handle is a neck 11, which projects forwardly from the handle and which is curved upwardly at 12. Beyond the neck is a broadened and flattened top plate 13, the forward edge of which is of segmental shape and inclined downwardly at 14, and the under surface of its forward end is ground flat at 15. This device comprises the frame of the machine.

The lever for operating the oscillating shear member is indicated by the reference-numeral 16 and is fulcrumed to the bolt 17, passed through the tubular handle. On its rear end within the tubular handle are the upwardly-projecting side pieces 18 to receive the device for oscillating the lever. The body portion of this lever projects forwardly to a point where the neck 12 is inclined upwardly, and on the sides of the lever are the arms 19, projected outwardly and then forwardly on opposite sides of the upturned portion of the neck 12, and the forward ends of these arms are inclined inwardly. Thus the body portion of the lever is above the machine-frame and the arms at the forward end of the lever are beneath the plate 13 of the machine-frame.

The stationary shear member comprises a flat plate 21, having its forward edge of segmental contour and provided with teeth 22, these teeth being tapered from their points rearwardly, and the upper corners of the teeth are sharpened. The top surface of the plate from a point in front of the rear ends of the teeth to the front ends of the teeth is elevated slightly at 23 above the rest of the plate, and the rear end portion of the plate is provided with two longitudinal slots 23^a, through which the bolts 24 are passed into the machine-

frame. By this means the plate may be adjusted longitudinally relative to the machine-frame and may be firmly clamped in any position. The under surfaces of the teeth are tapered from their forward ends rearwardly, being of considerable thickness at their rear ends, this tapered portion being indicated in Fig. 3 by the reference-numeral 25.

The oscillating shear member is composed of a metal plate, the body portion of which is indicated by the reference-numeral 26. The forward end portion of the oscillating shear member is segmental in shape and is provided with teeth 27, which are of the kind ordinarily used in devices of this class. The under corners of these teeth are sharpened, and the essential peculiarity of this part of my invention consists in providing a flat surface 29 at the under portion of the teeth, which surface projects from a point in front of the rear ends of the teeth to the outer ends of the teeth. No other portion of the oscillating shear member touches the stationary shear member. In the rear end portion of the oscillating shear member are the notches 30 to receive the ends 20 of the lever 16.

The reference-numeral 31 indicates a bolt passed through the stationary shear member and through the plate 13 of the machine-frame, and obviously when this bolt is tightened the stationary shear member is forced against the oscillating shear member and they are tightly drawn together. In this connection it is to be noted also that the edge 15 of the top 13 engages the teeth of the oscillating shear member at about the central portion thereof. Hence the teeth of the two shear members cannot be separated at their outer ends, as would be the case if the shear members were held together by devices located some distance in the rear of the teeth and when sand or hair became wedged between the teeth of the upper and lower shear members.

In practical use it is obvious, first, that the entire machine-frame may be made complete from a single piece of sheet metal, and hence is simple, durable, and inexpensive in construction, and the parts may be readily and quickly assembled. Furthermore, by elevating the top surfaces of the tooth of the stationary shear member above the body portions thereof I provide means whereby in sharpening the stationary member the rear end portions of the teeth may easily be cut away to the same degree as the outer end portions. In shears of this class in which the top surfaces of the stationary members are flat it is obviously necessary to grind away a part of the top surface of the shear member in the rear of the teeth before the teeth can be accurately ground as much on the rear ends as at their outer ends.

Having thus described my invention, what

I claim, and desire to secure by Letters Patent of the United States therefor, is—

1. In animal-shears, a one-piece frame comprising a tubular handle, a narrow neck projected forwardly from the handle and then upwardly, a flat plate projected forwardly from the upper end of the neck and having its front edge inclined downwardly and provided with a bearing-surface for the purposes stated.

2. Animal-shears comprising, in combination a one-piece frame having a tubular handle, a narrow neck projecting forwardly from the handle and then upwardly, a flat plate projecting forwardly from the upper end of the neck having its front edge inclined downwardly and provided with a bearing-surface, and a stationary shear member secured to the under surface of the frame, an oscillating shear member between the stationary one and the said plate, and a lever fulcrumed in the tubular handle and provided with arms at its forward end extending along the sides of the upturned portion of the neck and under the said plate and connected with the said oscillating shear member for the purposes stated.

3. An improved animal-shears comprising a body portion having a tubular handle, a neck projecting forwardly and then upwardly, a forward-extended plate at the upper end of the neck having its forward end inclined downwardly, a lever fulcrumed in the tubular handle and having arms at its forward end extended on opposite sides of the upturned portion of the neck and then inwardly under the forward end of the frame, a stationary shear member on the under surface of the frame, an oscillating shear member on top of the stationary member, the teeth only of said shear members being in contact with each other, the arms of said lever engaging the oscillating member, and said downward-inclined end of the frame engaging the oscillating shear member at or near the longitudinal center of their teeth, and a bolt connecting the stationary shear member with the forward end of the frame for the purposes stated.

4. In animal-shears, the combination of a stationary shear member having its top surface from a point at or near the rear ends of the teeth to the front ends of the teeth raised above the body portion, a movable shear member provided with teeth and arranged to engage the stationary shear member only at a point in advance of the rear end of the teeth on the stationary member, and means for engaging the movable member at a point directly over the longitudinal center of its teeth, said plate serving to hold the members together, for the purposes stated.

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Witnesses:

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