

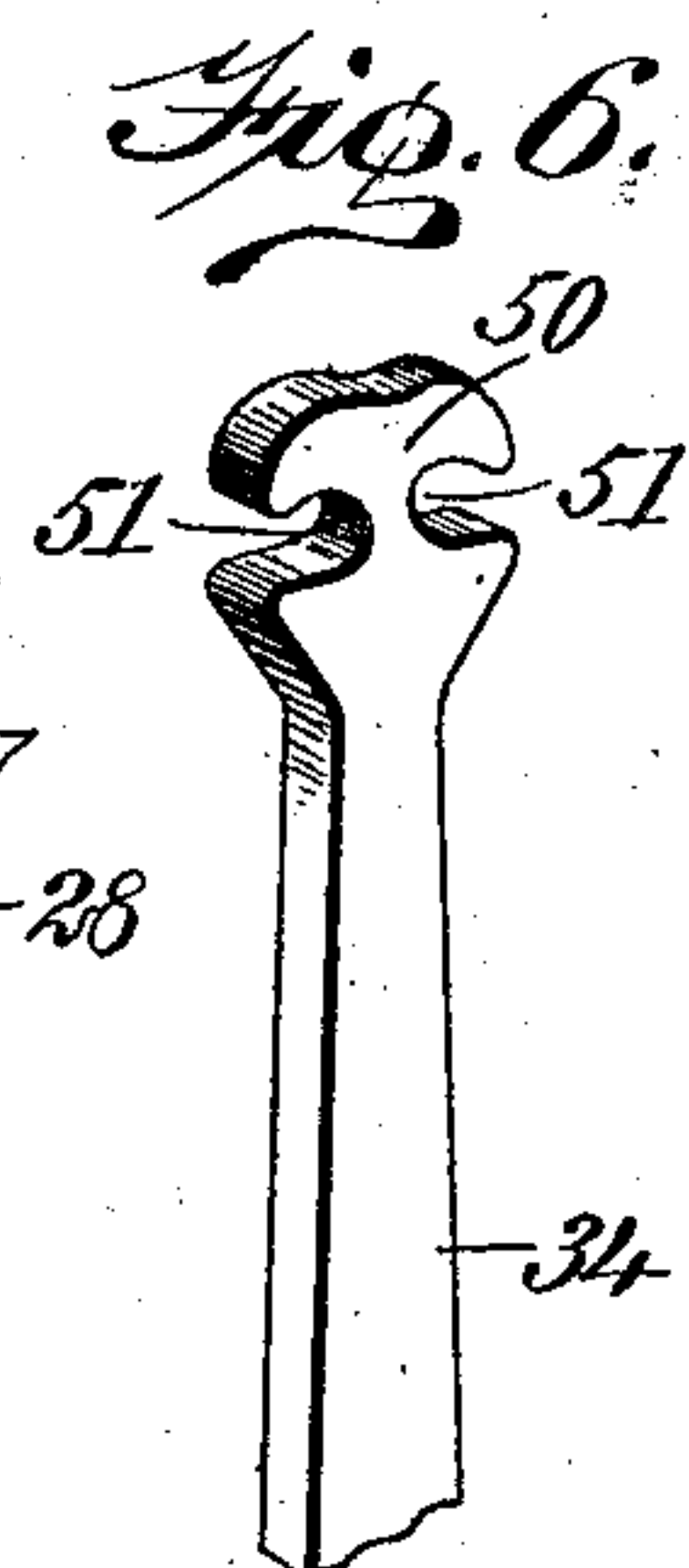
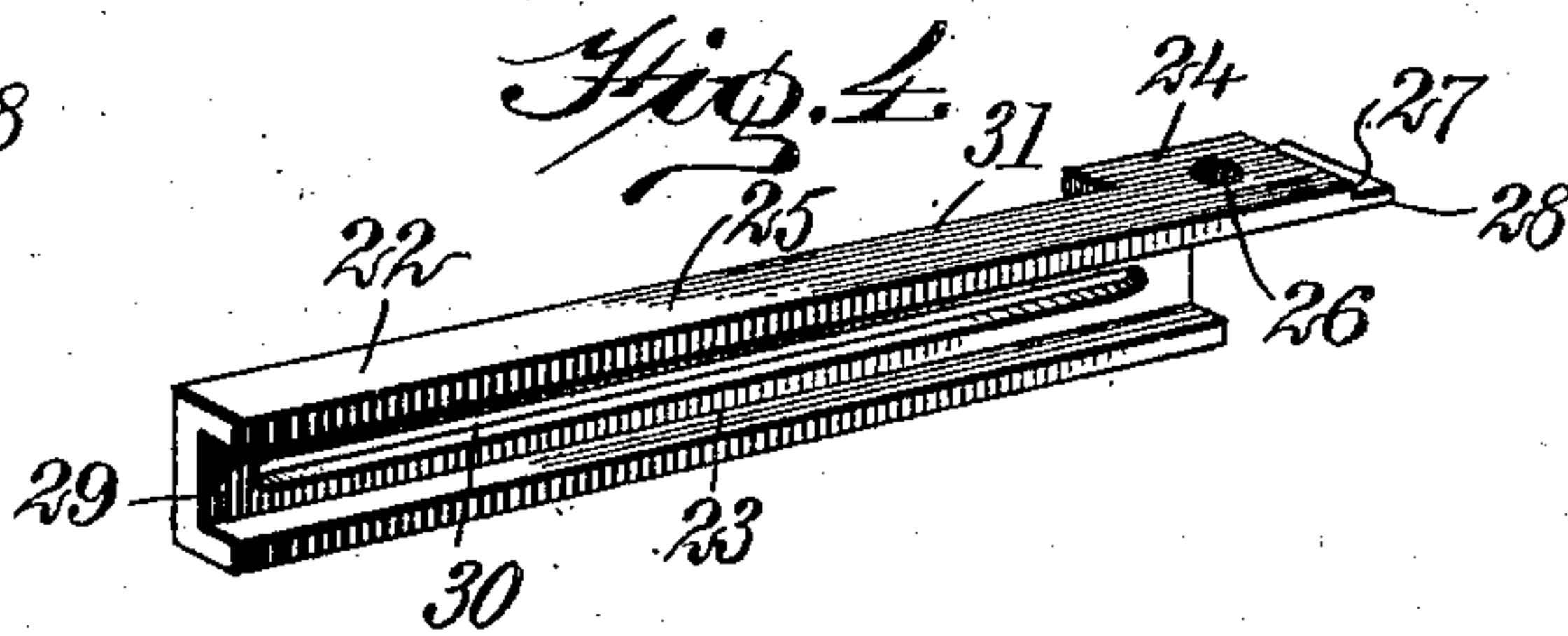
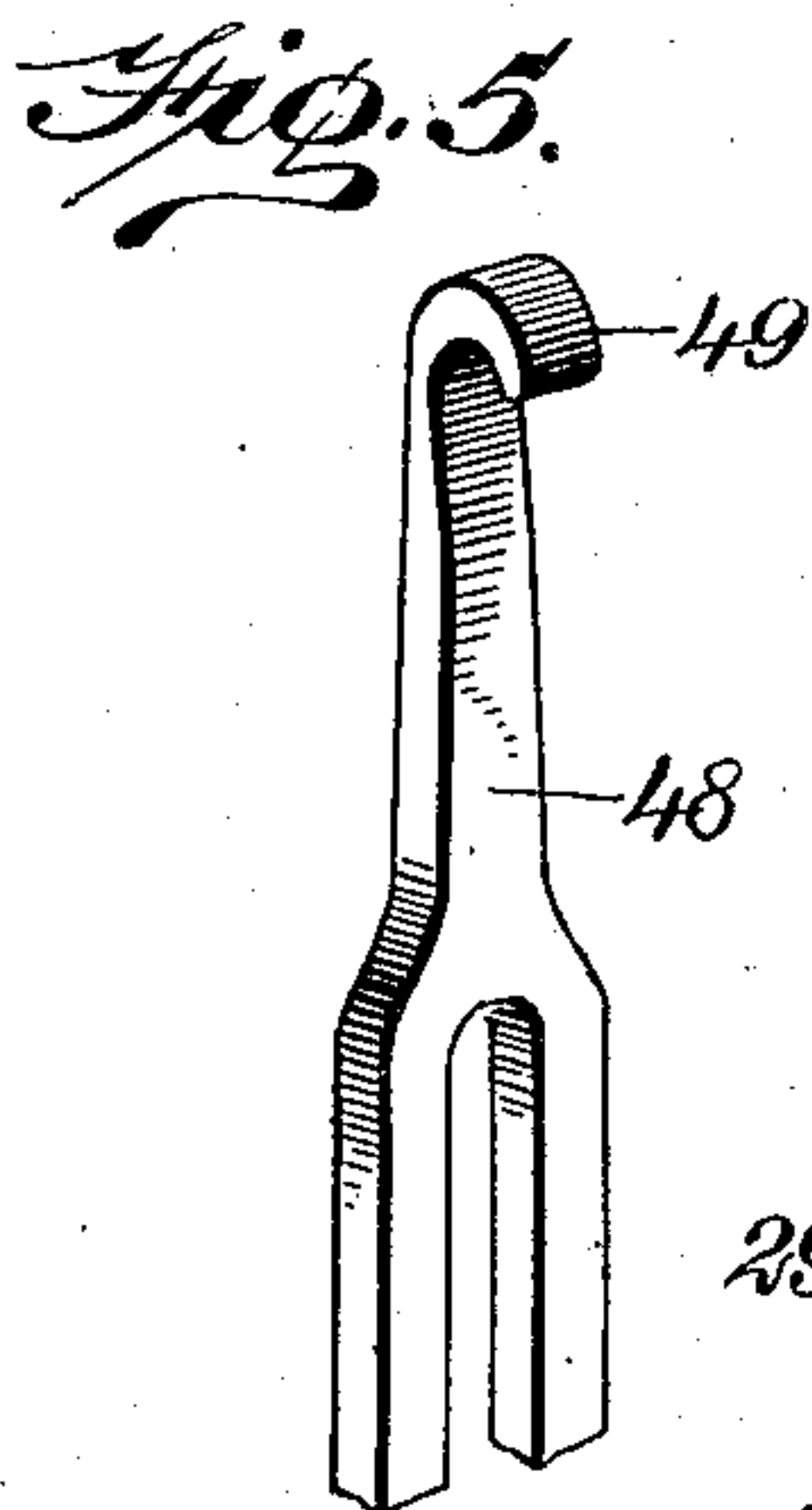
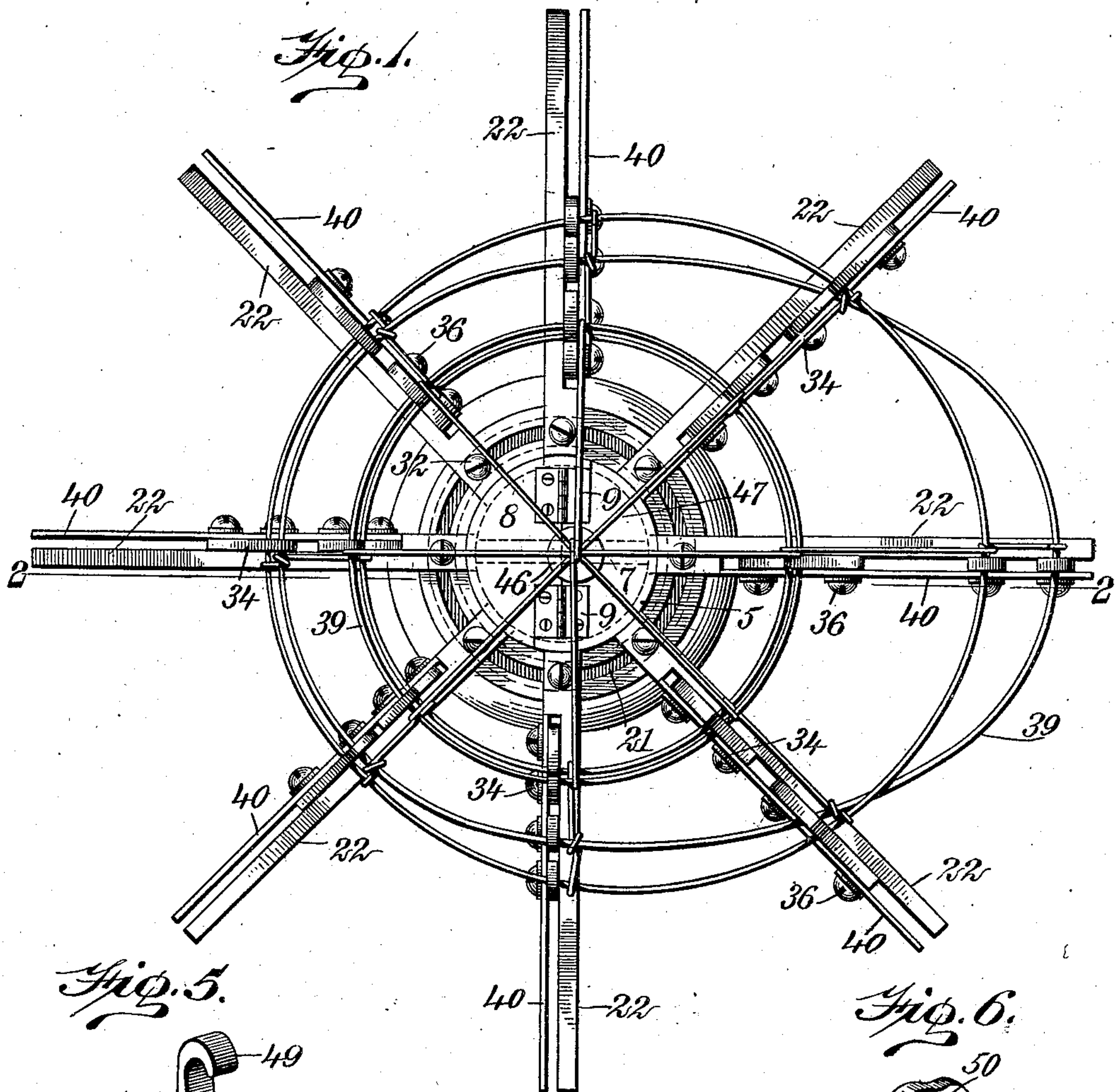
No. 891,227.

PATENTED JUNE 23, 1908.

B. BELLE.
DEVICE FOR MAKING WIRE HAT FRAMES.

APPLICATION FILED DEC. 6, 1905.

2 SHEETS—SHEET 1.



WITNESSES:

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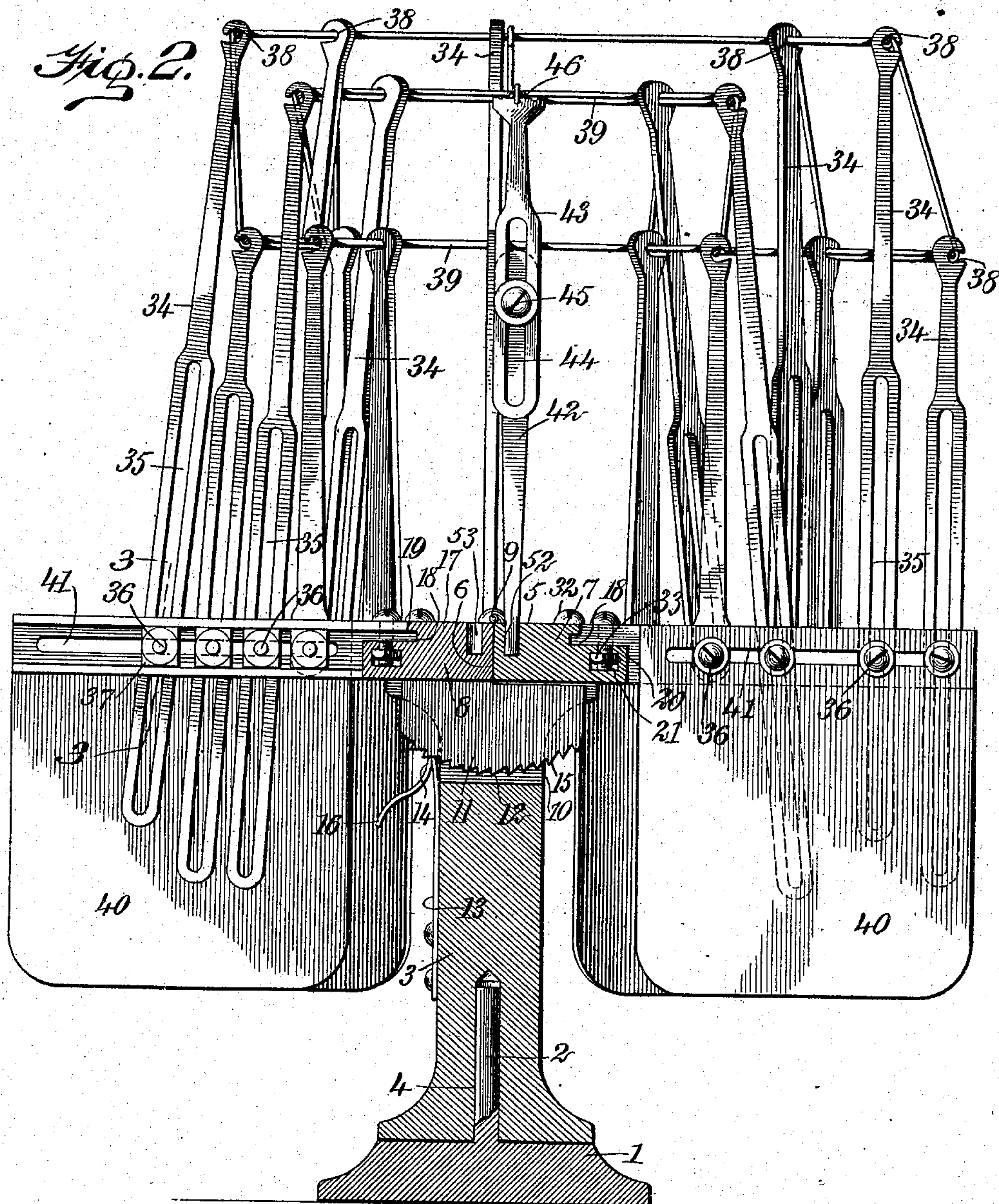
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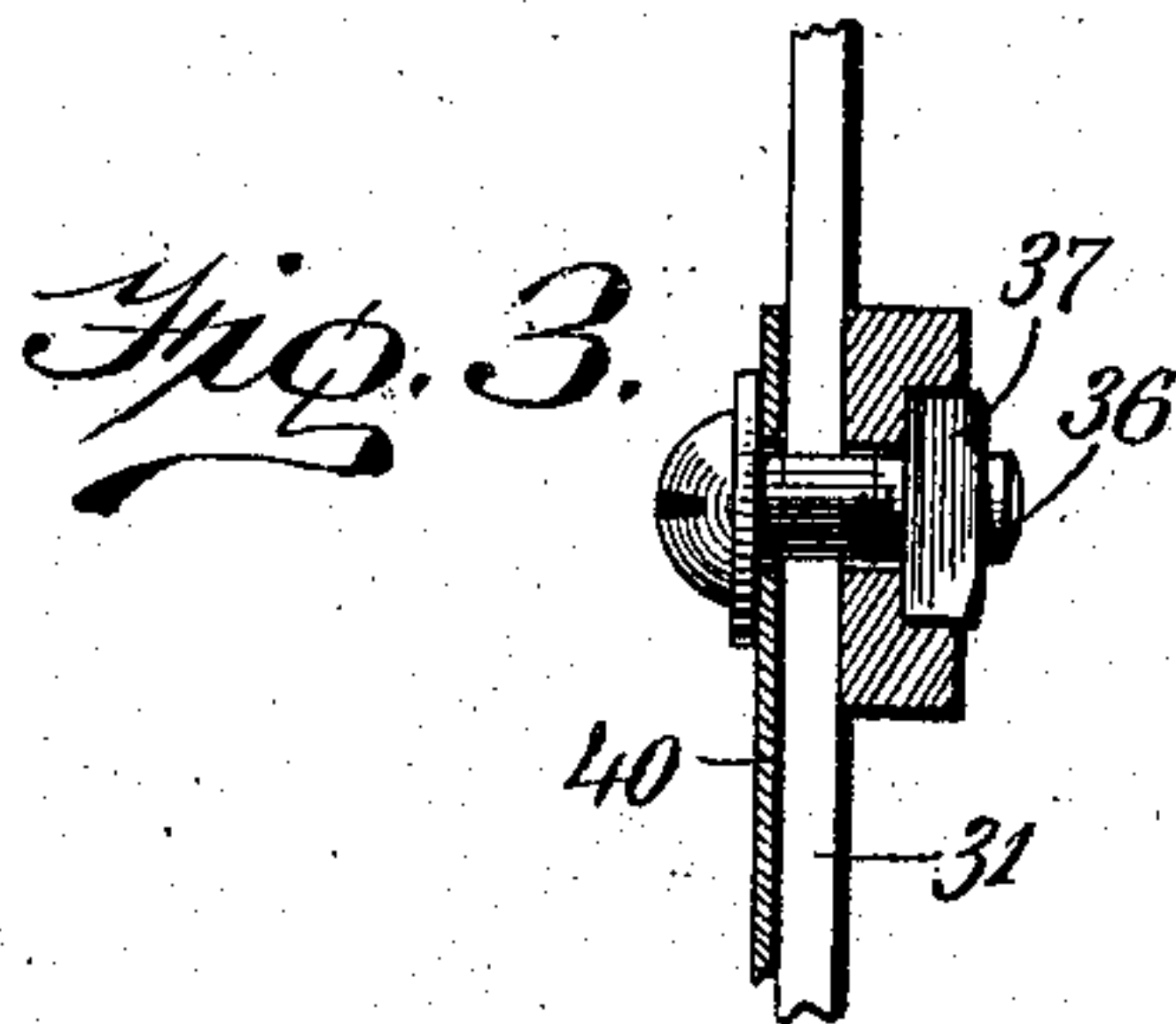
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WITNESSES:
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UNITED STATES PATENT OFFICE.

BELA BELLE, OF NEW YORK, N. Y., ASSIGNOR TO LOWENSTEIN & HELLER, OF NEW YORK, N. Y., A FIRM.

DEVICE FOR MAKING WIRE HAT-FRAMES.

No. 891,227.

Specification of Letters Patent.

Patented June 23, 1908.

Application filed December 6, 1905. Serial No. 290,598.

To all whom it may concern:

Be it known that I, BELA BELLE, a subject of the King of Hungary, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Device for Making Wire Hat-Frames, of which the following is a full, clear, and exact description.

10 This invention relates to devices for forming wire hat frames.

The object of the invention is to produce a device of this class which will enable a wire frame to be formed with facility thereupon, and to construct the device with a view to securing accuracy and symmetry in forming the frame.

15 A further object is to make the device adaptable to changes in style and to arrange the parts so as to enable the wire frame to be readily released.

20 The invention consists in the construction and combination of parts to be more fully described hereinafter and definitely set forth in the claims.

25 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 plan of the device showing a wire frame held thereupon; Fig. 2 is a vertical section taken on the line 2—2 of Fig. 1; Fig. 3 is a cross-section on the line 3—3 of Fig. 2, and illustrating a detail of its construction; Fig. 4 is a perspective, showing one of the arms of the device detached from the body thereof; Fig. 5 is a perspective view of a modified form of a centering arm of the device; and Fig. 6 is also a perspective, showing a modified form for the extremities of the wire holders or hooks.

30 To refer more particularly to the parts, 1 represents a base provided with a centrally disposed stud 2 which projects upwardly, as indicated. Mounted on this base 1 is a rotatable post or pedestal 3 which is provided with a bore 4 at its lower extremity receiving the stud 2, as shown. At its upper extremity the pedestal 3 is expanded so as to form a head 5 which is divided centrally in the vertical plane 6 so as to form a fixed section 7 and a movable section 8. The movable section 8 is attached to the fixed section by means of suitable hinges 9, as indicated most clearly in Fig. 1. Just beneath the head 5

the upper extremity of the post 3 is provided with a transverse slot 10. On its under side the movable section 8 of the head is provided with a downwardly projecting fin or segment 11 which projects under the opposite section in the slot. This fin is provided with a serrated edge 12 disposed circumferentially about the axis of the hinges 9 as a center. To the side of the pedestal 3 at a suitable point, I attach a catch 13 which consists of a leaf spring bent at its upper extremity so as to form a nose 14, which may engage the teeth 15 of the segment. The material of the catch beyond the nose 14 is bent outwardly so as to form a rudimentary handle 16, facilitating the operation of the catch in a manner which will appear more fully hereinafter. The teeth 15 are preferably inclined as shown.

75 The head 5 is substantially circular in section, as shown in Fig. 1. Its upper face is formed with an upwardly projecting boss 17, the side face whereof is under-cut by means of a circumferential groove 18 which passes continuously about the boss, as will be readily understood. In this way an overhanging flange or shoulder 19 is presented. By reason of the upwardly projecting boss an annular face 20 is presented on the head 5, and in this face a circumferential tee-slot 21 is formed, which also passes continuously around the head.

80 I provide a plurality of arms 22 which are adapted to be secured to the head so as to project radially therefrom, as shown. These arms are preferably formed as shown in Fig. 4, presenting channel-shaped bodies 23 opening sidewise, said bodies being integral with offset heads 24. These heads 24 constitute continuations of the upper face or flange of the arms, and each head is formed with a bolt opening 26. In addition to this the inner ends of the heads are formed each with a rabbet groove 27. In this way reduced tongues 28 are formed at the inner extremities of the arms. Furthermore the webs 29 of the channeled arms are formed with longitudinal slots 30 for the purpose which will appear more fully hereinafter. As indicated in Fig. 4, the head 24 of each arm projects beyond the inner extremity of the body thereof. As indicated also in this figure and in Fig. 1, the rear or side face 31 of each arm is in substantial alinement with the center line of the head of the arm. These arms are applied to

the head 5 in the manner indicated in Fig. 2, the tongue 28 of each arm being thrust into the circumferential groove 18, engaging the underside of the flange or shoulder 19. Through the openings 26 bolts 32 pass downwardly, and the lower extremities of these bolts screw into nuts 33 which run in the aforesaid slot 21.

To the faces 31 of the arms 22 I attach wire holders or hooks 34. These consist of elongated bars, the lower extremities whereof are provided with longitudinal slots 35. Through these slots bolts 36 pass respectively, the inner extremities of said bolts being attached to nuts 37, which run freely between the upper and lower flanges of the arms. In this way a plurality of the wire holders may be attached to the same arm, each being independently adjustable of the others. In this connection it should be understood that by loosening the bolts, the holders may be adjusted vertically and their angularity as well as their position upon the arms may be adjusted, the nuts affording means for clamping the holders rigidly in any position desired. In the drawing I have illustrated four of these wire holders on each arm; there may be more or less of them as desired. The upper extremities of these wire holders or hooks are formed into hook heads 38 which preferably open away from the axis of the device. In these hook heads wire 39 may be passed so as to give the same any desired form.

It is found in practice in working with devices of this kind that the free ends of the wire, which project downwardly into the vicinity of the lower portions of the holders 34, manifest a tendency to become caught in the slots 35. In order to prevent this I provide each of the arms 22 with a shield or plate 40, which is provided near its upper edge with a transverse slot 41. Through these slots aforesaid bolts 36 pass. It should be observed that the plates 40 are attached over the outer sides of the holders, but when desired can be attached on the inner sides thereof. This is a matter of convenience depending principally upon the points on which the wire is worked, that is, near to the right or the left sides of the arms.

At or near the central portion of the head 5, the fixed section 7 thereof is provided with an upwardly projecting stem 42, to which an adjustable center 43 is attached, said center having a longitudinal slot 44 through which the clamping bolt 45 passes, as shown. The upper extremity of the center 43 is expanded into a head 46. This center head is substantially the center of the device and affords means for making a symmetrical form thereupon, as the transverse or radial wires 47 of the frame may be passed accurately across the center of the head 46, as will be readily understood. The slot 44 enables the center

head to be adjusted accurately to any desired height, adapting the device for different forms of hats or styles.

Instead of using the expanded center head 46, I may adopt a center 48 of the form shown in Fig. 5, the upper extremity whereof is turned over to form a hook 49. This type of center is especially useful where the center of the hat frame is depressed with respect to the side edges thereof. This center may, of course, be adjusted longitudinally as to height like the center already described.

Where it is necessary to form a frame of certain types it is desirable to make the holders 34 of the frame shown in Fig. 6. In this instance, I provide the holders with double hook heads 50, thus presenting rudimentary eyes 51 opening in opposite directions and enabling a wire to be attached on either side.

When a complete frame has been formed from the wires 39, as indicated in Fig. 2, it may be readily released by rotating the movable section 8 of the head upwardly, carrying with it all of the arms which are attached thereto. As the section 8 is rotated upwardly in this manner the teeth 15 of the segment 11 will pass successively by the nose 14 of the catch 13, and this catch will engage one of the teeth where the movement stops in such a way as to support the section 8 in the position in which it is left. Especial attention is called to this feature of the device as it enables both hands of the operator to be applied in order to remove the frame. In this way the operation of removing the frame is much facilitated. I have preferred to incline the teeth 15, as shown, so that the faces supporting the pressure of the nose 14 lie substantially at right angles to the axis of the nose. It should be understood that the catch 13 is of resilient material and holds itself in position; however, by seizing the handle 16 the nose 14 may be disengaged from the teeth so as to rotate the section 8 which descends to its normal position. Attention is called to the fact also that when the arms 22 are placed in position the inner extremities of the bodies thereof abut against the outer face of the head 5 so as to assist in supporting the strain. The fact that the pedestal 3 is pivotally mounted upon the base in the usual manner enables the device to be rotated as the operator desires so that the framing operation progresses around the same.

I prefer to make the stem 42 removable. For this purpose I step its lower extremity in a suitable opening 52 in the fixed section 7, and I provide a similar opening 53 in the movable section 8 in which the stem may be attached if desired. Evidently by loosening certain of the bolts 32 any of the arms 22 may be removed as desired. The remaining arms may be then symmetrically arranged so that they present equal angles between each

other. In this way I am enabled to form a device having any number of arms desired, and in every case the arms can be symmetrically placed so that a symmetrical hat frame can be readily produced. By reason of the fact that the number of arms may be reduced in this way the construction of hats of certain types is greatly facilitated, as an operator has greater clearance between the arms, and can work with greater rapidity.

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

1. In a device of the class described in combination a head having a plurality of arms projecting therefrom, wire holders attached to said arms, said head having a movable section having a hinged connection therewith, a segment carried by said movable section, and means engaging said segment for supporting said movable section in an elevated position.

2. In a device of the class described in combination a head having a circumferen-

tial groove therein, a plurality of arms adjustably attached in said groove and projecting radially from said head, and a plurality of wire holders attached to said arms.

3. In a device of the class described in combination a head, having a plurality of arms projecting therefrom, a plurality of wire holders attached to said arms and having slots therethrough, and plates attached to said arms and covering said slots.

4. In a device of the class described in combination a head, having a circumferential groove therein, and radially disposed arms adjustably engaging said groove, and means for rigidly securing said arms to said head.

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

BELA BELLE.

Witnesses:

F. D. AMMEN,
JNO. M. RITTER.