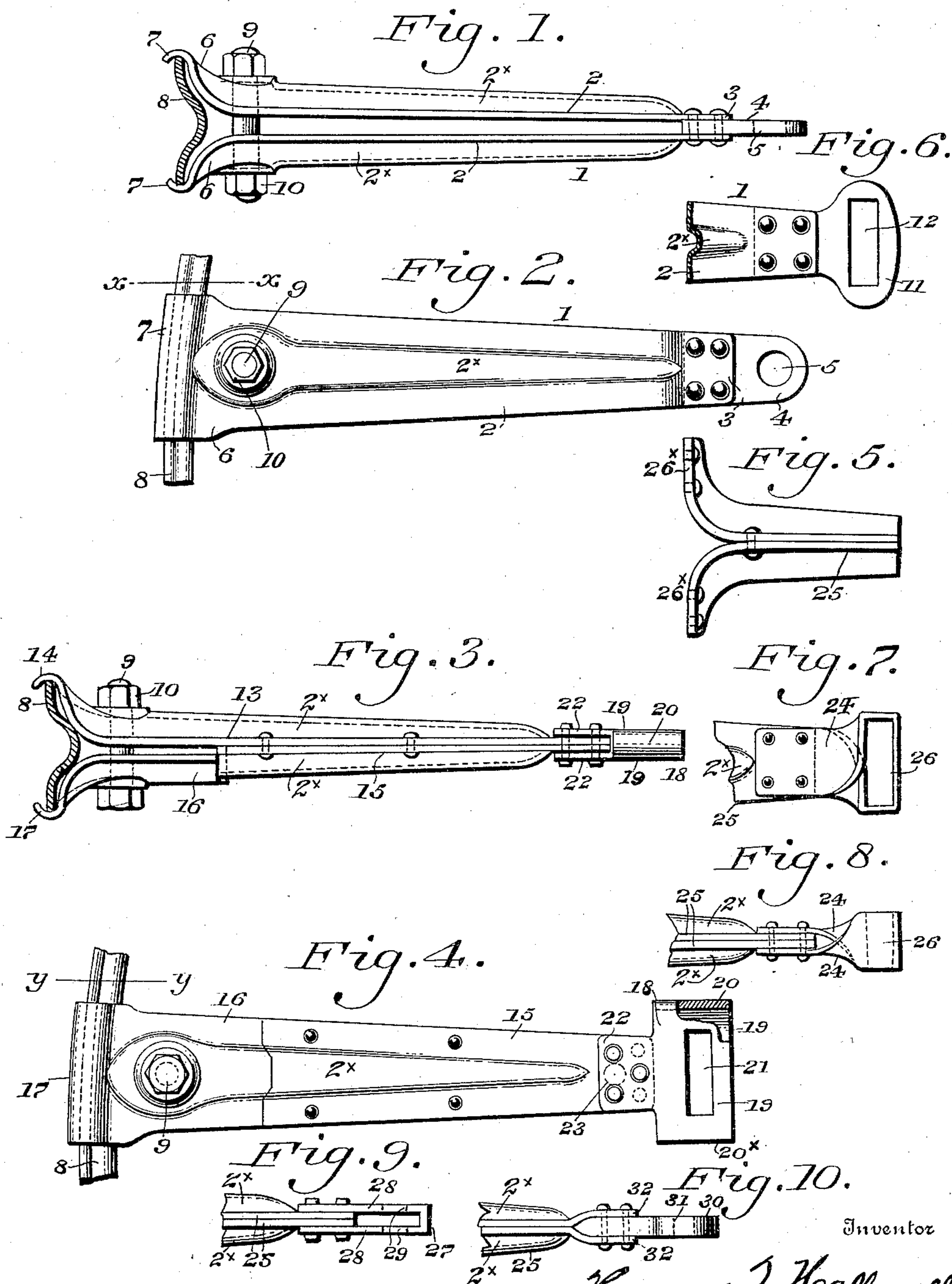


H. T. HALLOWELL.
PRESSED METAL BELT SHIFTER ARM.

(Application filed Nov. 12, 1900.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses
P. F. Chagles.
L. Howville.

Inventor
Howard T. Hallowell.
Biedersheim & Fairbanks.
Attorneys

No. 706,819.

Patented Aug. 12, 1902.

H. T. HALLOWELL.
PRESSED METAL BELT SHIFTER ARM.

(Application filed Nov. 12, 1900.)

(No Model.)

2 Sheets—Sheet 2.

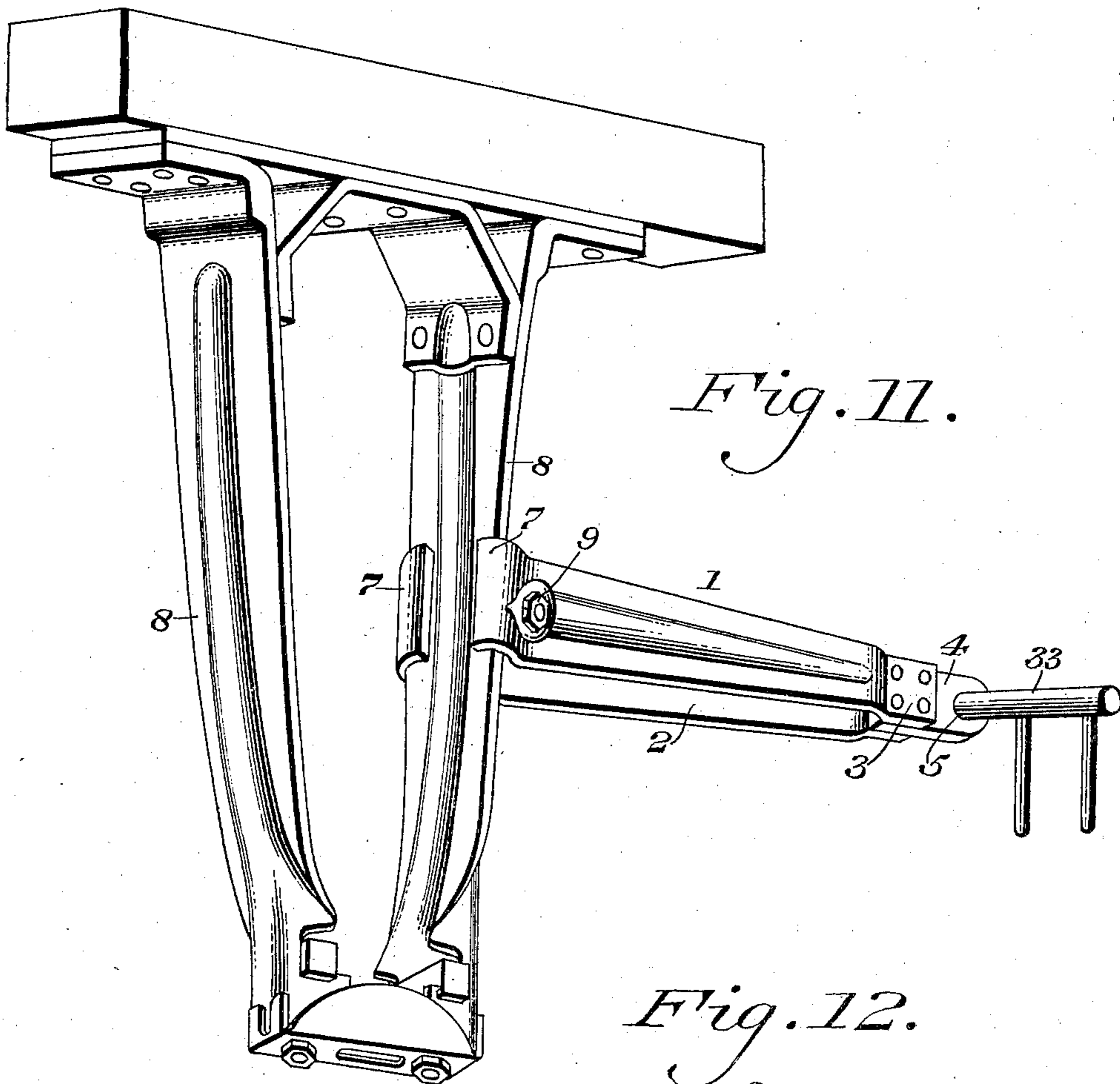
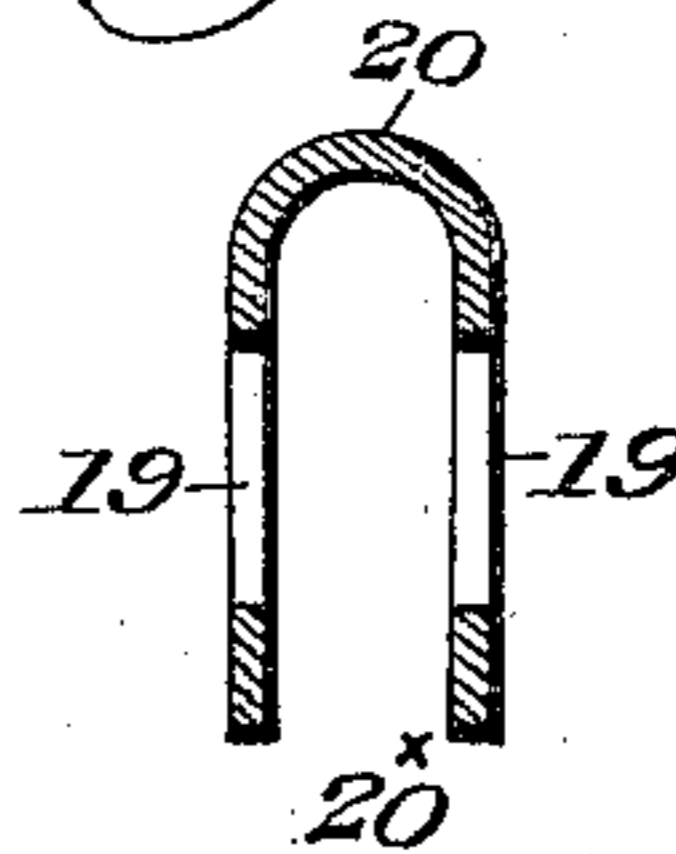


Fig. 12.



Witnesses

P. H. Nagle.
L. Bouville.

Inventor
Howard T. Hallouell.

By
Hiedersheim & Fairbank
Attorneys

UNITED STATES PATENT OFFICE.

HOWARD T. HALLOWELL, OF PHILADELPHIA, PENNSYLVANIA.

PRESSED-METAL BELT-SHIFTER ARM.

SPECIFICATION forming part of Letters Patent No. 706,819, dated August 12, 1902.

Original application filed August 11, 1900, Serial No. 26,550. Divided and this application filed November 12, 1900. Serial No. 36,168. (No model.)

To all whom it may concern:

Be it known that I, HOWARD T. HALLOWELL, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Pressed-Metal Belt-Shifter Arms, of which the following is a specification.

My invention consists of an improved construction of a pressed-metal belt-shifter arm which is preferably constructed of sheet metal pressed or otherwise shaped into the desired contour so that when the several novel parts are assembled and secured together a comparatively light structure is produced possessing great strength, said arm having clamping devices on an end thereof which are adapted to engage the leg of a hanger, while the opposite extremity of said arm has a guide-piece, provided with an opening therethrough, in which the belt-shifter is adapted to be supported.

It further consists of novel details of construction, all as will be hereinafter fully described, and particularly pointed out in the claims.

Figure 1 represents a plan view of a supporting-arm for a belt-shifter embodying my invention, showing also a leg of the hanger to which the same is applicable, said leg being shown in section on line *xx*, Fig. 2. Fig. 2 represents a side elevation of the arm seen in Fig. 1. Fig. 3 represents a plan view of another embodiment of the principle of my invention, showing in section a leg of the hanger to which the belt-shifter arm is applicable, the section being taken on line *yy*, Fig. 4. Fig. 4 represents a side elevation of the construction seen in Fig. 3. Fig. 5 represents a plan view of one extremity of an arm for a belt-shifter, showing the same adapted to be riveted to a hanger-leg. Fig. 6 represents an elevation of a modified form of a guide-piece. Figs. 7 and 8 represent side portions of guide-pieces, showing the different ways in which the same can be formed. Figs. 9 and 10 represent top views of modified forms to be hereinafter referred to. Fig. 11 represents a perspective view of a shaft-hanger having my novel construction of shifter-arm applied thereto. Fig. 12 repre-

sents an end view of the guide-piece seen in Fig. 4.

Similar numerals of reference indicate corresponding parts in the figures. 55

Referring to the drawings, 1 designates a shifter-arm formed of sheet metal and consisting of the members 2, of pressed steel, shaped to the desired contour, which have the longitudinal rib 2^x and are riveted or otherwise secured at their extremities 3 to the guide-piece 4, which has the opening 5 therethrough, in which the belt-shifter (not shown) is located, the opposite extremities 6 of the shifter-arm being curved or deflected inwardly, so as to form lips 7, which engage the edges of a hanger-leg 8, as will be understood from Figs. 1 and 2, said lips 7 serving as clamps and being held in the desired position by means of the bolt or clamping device 9, having the nut 10 thereon, it being apparent that upon slackening said bolt the arm can be readily attached to or removed from or adjusted along the hanger-leg 8, as may be desired. 60 65 70 75

In Fig. 6 I have shown another form of guide-piece 11, having a polygonal opening 12 therethrough, which may be employed in place of the guide-piece 4, if desired, as is evident.

In Fig. 3 I have shown another embodiment of my invention, wherein 13 designates the body portion of the arm, the same being composed of pressed sheet metal, as before, and having the deflected or inwardly-bent member or lip 14, which is adapted to engage the hanger-leg 8, as above described. The body portion 13 has riveted or otherwise secured thereto the member 15, contiguous to which is a portion 16, the latter portion being provided with the inwardly-turned lip 17, which is held in position relative to the leg 8 by means of the bolt 9, having the nut 10 thereon, wherefrom it will be seen that by slackening said bolt according to requirements the arm seen in Figs. 3 and 4 can be connected to or disengaged from or adjusted along the hanger-leg according to requirements. 80 85 90 95

18 designates a hollow U-shaped guide-piece for supporting the belt-shifter, which is composed of the sides 19, the top portion 20, and the open portion 20^x, said sides having the opening 21 therethrough and being 100

provided with the ears 22, by means of which the guide-piece is riveted or otherwise secured to the body portion 13 and the member 15, the construction of the guide-piece 18 being clearly understood from the end view seen in Fig. 12.

If desired, I may form an opening 23, as indicated in dotted lines in Fig. 4, as is evident.

In Figs. 7 and 8 I have shown other forms of guide-pieces, the same consisting of the members 24, which are shaped substantially as seen in said figures and are attached to the body portion 25 of the arm by riveting or other suitable means, said guide-piece having the opening 26 therethrough, in which the shifter-rod (not shown) is located.

In Fig. 9 I have shown the body portion of the arm 25 as equipped with a guide-piece 27, formed of the members 28, having the opening 29 therethrough, said members being attached to the body portion by rivets or other suitable fastening devices.

In Fig. 10 I have shown another form of guide-piece 30, which has an opening 31 therethrough and is adapted to be inserted into the bifurcated ends 32 of the body portion 25 and held in position by means of rivets or other suitable fastening devices.

In Fig. 5 I have shown the body portion 25 of the arm as having feet 26^x, which may be riveted or otherwise secured to the hanger-leg 8.

It will be apparent from the foregoing that by my invention I have provided a novel construction of an arm which is very light and strong and can be cheaply manufactured and readily applied to or disconnected from existing hangers, although I prefer to employ the same in connection with a novel form of pressed-metal hanger which has been invented by me and is described in the contemporaneously pending application filed August 11, 1900, Serial No. 26,550, of which the present case is a division.

It will also be apparent from the foregoing that the above shifter-arms constructed as above described are very durable and serviceable and can be quickly placed in position or adjusted according to requirements, as will be understood from the side elevations seen in Figs. 2 and 4, where I have shown one hanger-leg to which the arm is clamped, it being understood that the rod which operates the belt-shifter passes through and is supported in the openings 5, 21, 12, or 26, as the case may be.

In Fig. 11 I have shown my improved construction of shifter-arm as attached to the leg 8 of a conventional form of hanger, it being apparent that the same can be readily attached to or disconnected therefrom by means of the devices 9 and that the belt-shifter 33, which may be of the usual con-

struction, is conveniently supported in position and can be readily manipulated, as will be apparent to those skilled in this art.

It will be apparent that while I have designated my invention as being preferably constructed from pressed steel I do not in every instance desire to be limited thereto, although in practice I prefer to construct the shifter-arm of this material.

It will be apparent that slight changes may be made by those skilled in this art which will come within the scope of my invention, and I do not therefore desire to be limited in every instance to the exact construction I have herein shown and described.

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

1. As an improved article of manufacture, an arm for supporting a belt-shifter, made in sections of sheet metal secured together, a clamping device for holding said sections in position, and a guide-piece carried by said arm and adapted to support said belt-shifter.

2. A metal belt-shifter arm made in sections, suitably fastened together, a clamping device, and a guide-piece secured to said arm and having an opening therethrough in which the belt-shifter is adapted to be supported.

3. A metal belt-shifter arm, made in sections, a guide-piece attached to said arm, said guide-piece and sections being riveted together, and a clamping device on the end of said arm opposite to said guide-piece.

4. A metal belt-shifter arm, made in sections, one extremity of said sections having inwardly-turned lips, a clamping device for causing said lips to engage a hanger-leg, and a guide-piece for a belt-shifter, attached to said arm and having an opening therethrough.

5. A metal belt-shifter arm, made in sections, each section having a longitudinal rib, a clamping device for holding said sections in position and a guide-piece carried by said arm and adapted to support a belt-shifter.

6. A metal belt-shifter arm made in sections, each section having a longitudinally-extending rib, a guide-piece attached to said arm, said guide-piece being in sections and riveted together, and a clamping device on the end of said arm opposite to said guide-piece.

7. A metal belt-shifter arm, made in sections, each of the latter having a longitudinally-extending rib, one extremity of said sections having inwardly-turned lips, a clamping device for causing said lips to engage a hanger-leg and a guide-piece for a belt-shifter attached to said arm and having an opening therethrough.

HOWARD T. HALLOWELL.

Witnesses:

E. HAYWARD FAIRBANKS,
C. D. MCVAY.