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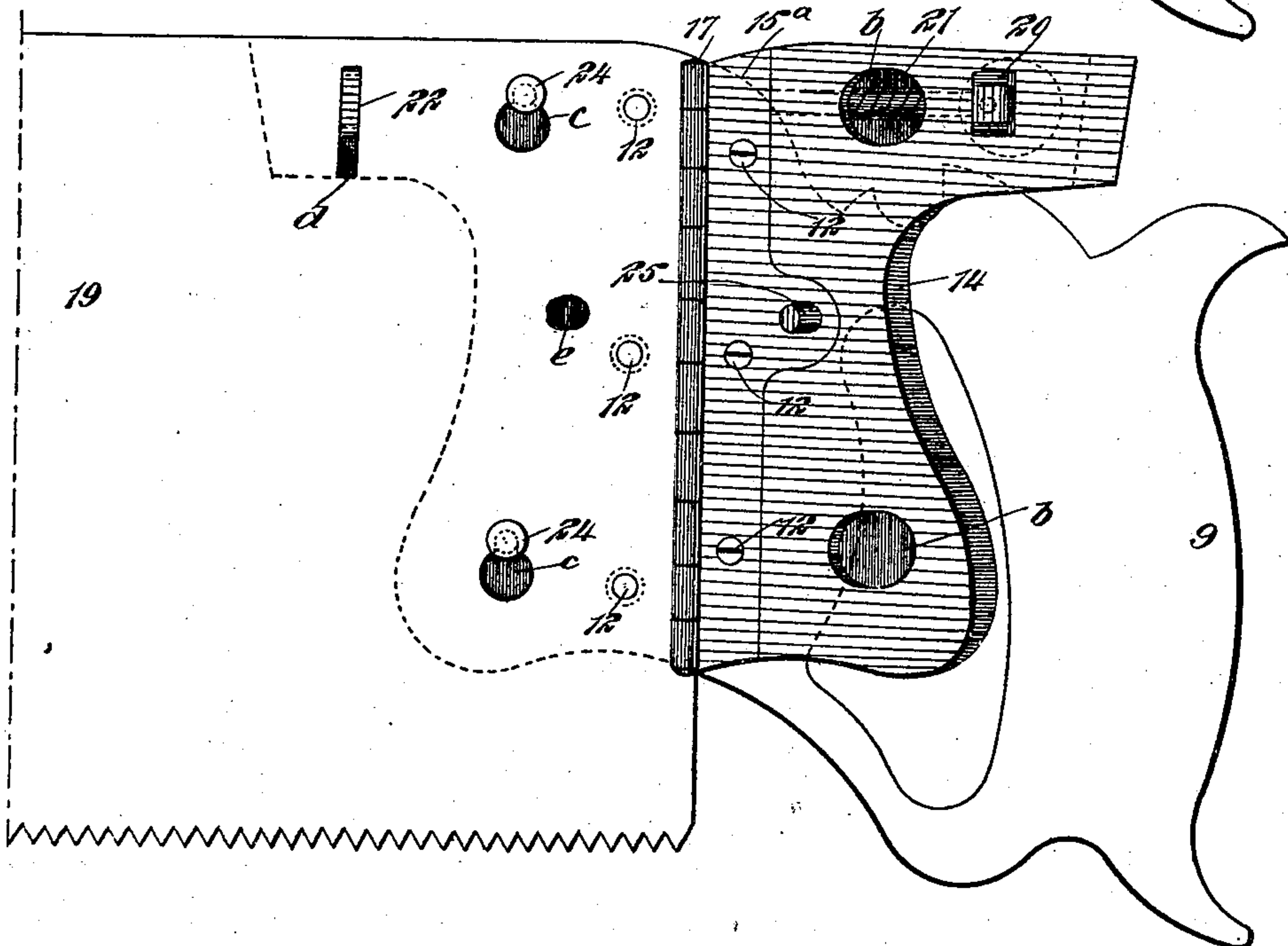
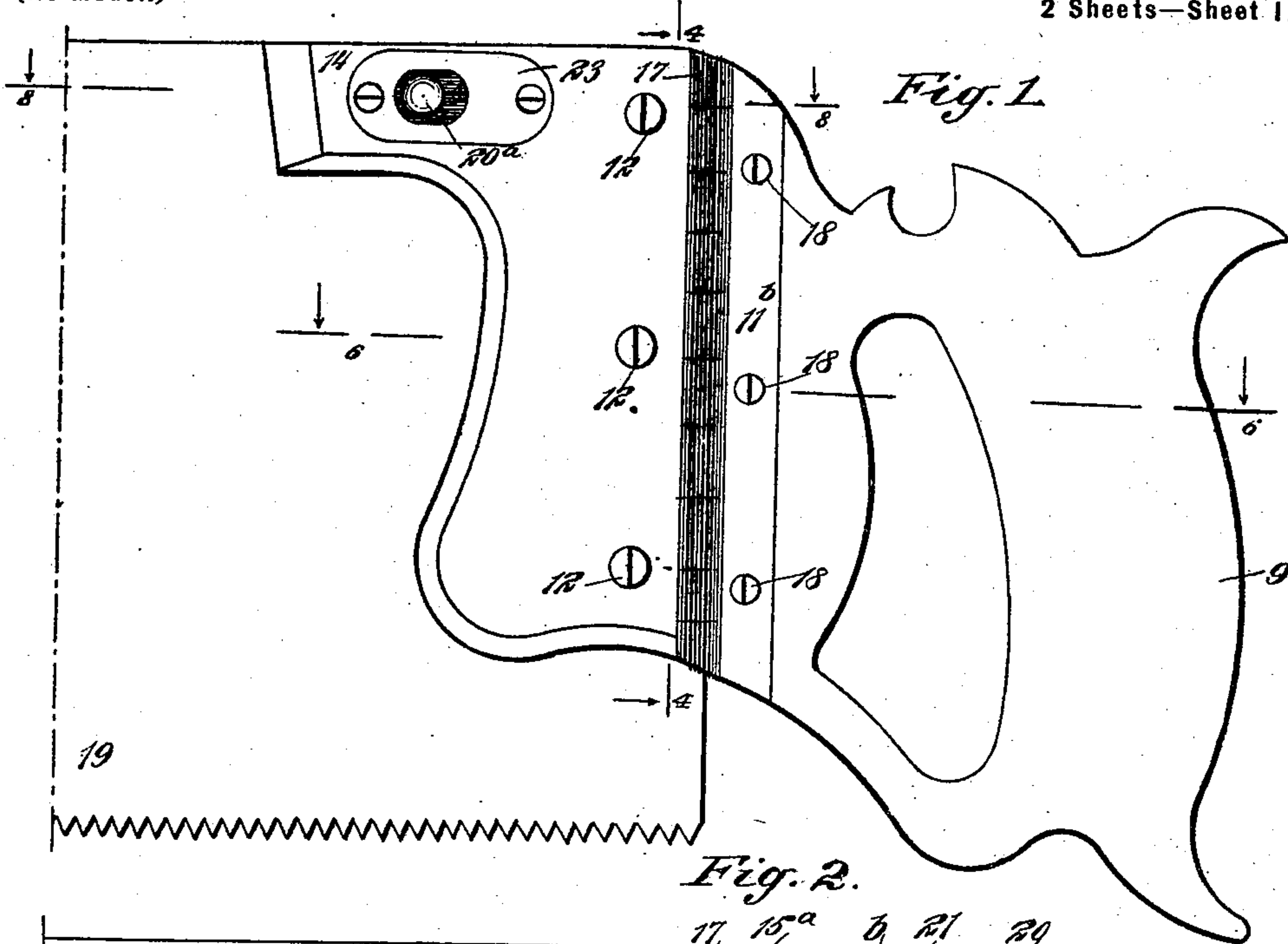
Patented Jan. 22, 1901.

C. W. STITES.
SAW HANDLE.

(Application filed May 31, 1900.)

(No Model.)

2 Sheets—Sheet 1.



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Julius Lutz

INVENTOR

Charles W. Stites.

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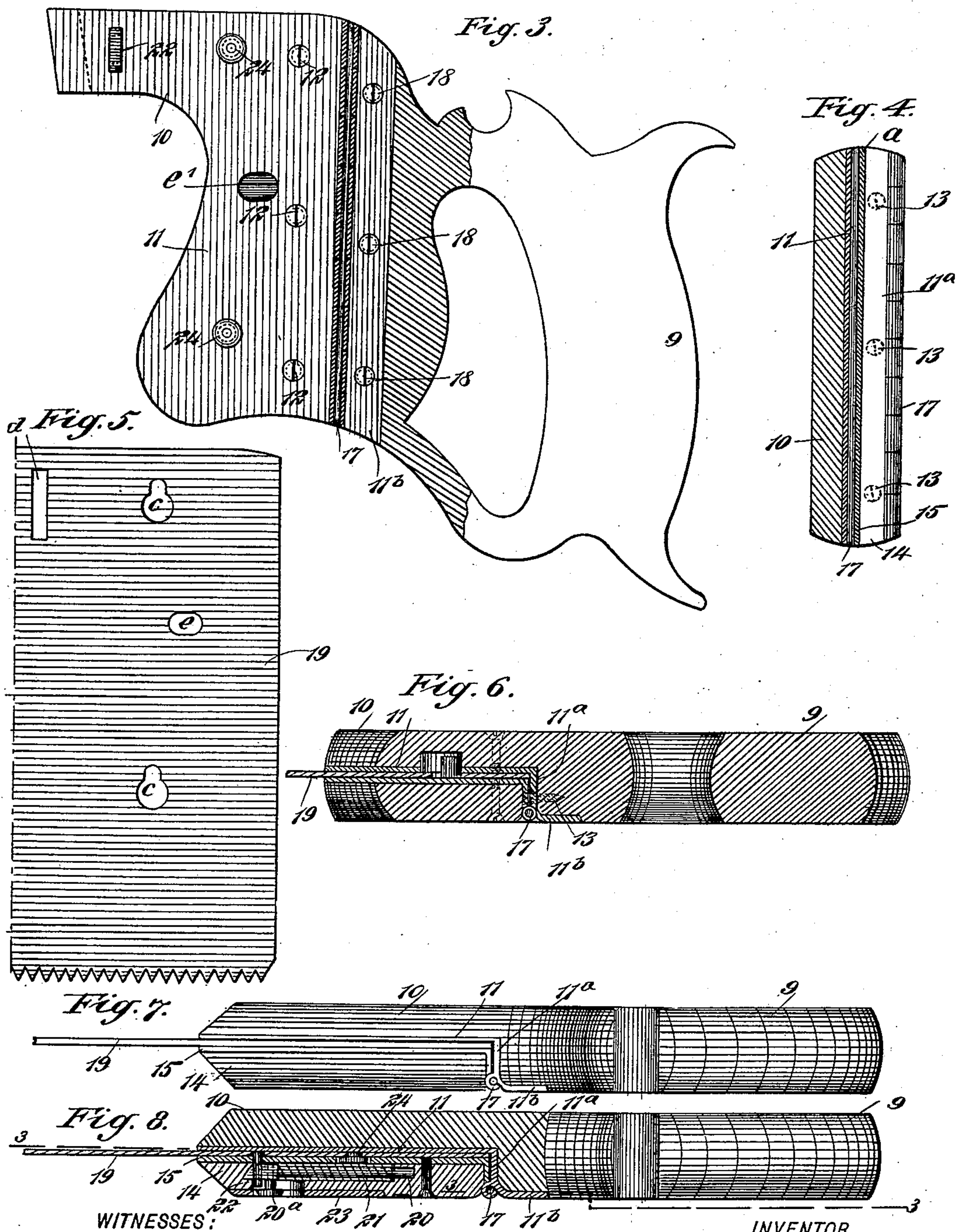
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UNITED STATES PATENT OFFICE.

CHARLES W. STITES, OF NEW YORK, N. Y.

SAW-HANDLE.

SPECIFICATION forming part of Letters Patent No. 666,572, dated January 22, 1901.

Application filed May 31, 1900. Serial No. 18,527. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. STITES, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented new and useful Improvements in Saw-Handles, of which the following is a full, clear, and exact description.

This invention relates to handles for hand-saws, and has for one object to provide a saw-handle so secured upon a saw-blade that the handle may be quickly detached without the use of a tool and may be attached to the handle in a firm reliable manner by the latch-
ing movement of a portion of the handle.

A further object is to so construct the handle and any number of saw-blades that the blades may be speedily exchanged and the blades not needed be carried in a compact manner ready for quick attachment to the handle as may be desired.

The invention consists in the novel construction and combination of parts, as is hereinafter described, and defined in the appended 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 side view of the handle and of a saw-blade in part held in the handle. Fig. 2 is a side view of the handle and saw-blade, showing a portion of the handle adjusted to release the saw-blade from the handle. Fig. 3 is a partly-sectional side view of the saw-handle, taken substantially on the line 3 3 in Fig. 8, the clamping-leaf of the handle being removed and also the saw-blade. Fig. 4 is a transverse sectional view substantially on the line 4 4 in Fig. 1. Fig. 5 is a detached side view of the heel portion of a saw-blade having features of the improvement which adapt it for ready connection with the improved handle. Fig. 6 is a sectional plan view of the improvement, substantially on the line 6 6 in Fig. 1. Fig. 7 is a top edge view of the improved handle and of the heel portion of a saw-blade thereon; and Fig. 8 is a partly-sectional plan view of the improvement, substantially on the line 8 8 in Fig. 1.

In the drawings, which illustrate the invention and its application, 9 indicates the grip

portion of the handsaw-handle, which is of the usual form and preferably made of hard wood, as is common for such part of a hand-saw. Upon the forward portion of the grip-piece 9 a flange 10 is integrally formed and is extended forwardly thereon, its outer surface alining with one side of said grip-piece. The flange 10 terminates at its junction with the grip-piece 9 in a transverse wall of the latter, which is at a right angle to the plane of the inner face of the flange, and upon said inner face a metal lining-plate 11 is affixed by screws 12. The thickness of the flange 10 and facing-plate 11 is equal to one-half of the thickness of the grip-piece 9 and, as shown the facing-plate 11, is bent at a right angle, so as to fit against the transverse wall at the rear end of said facing-plate, the laterally-extended member 11^a of the facing-plate being secured to the handle-stock or grip-piece 9 by screws 13, as shown in Fig. 4.

A clamping-leaf 14 is provided having substantially the same form and thickness as the flange 10, and upon the inner side of said leaf a facing-plate 15 is secured by screws, as shown. The facing-plate 15 is formed with a lateral projection at its rear end, which projection fits against the rear edge of the clamping-leaf 14, as shown in Figs. 6, 7, and 8.

A hinge-joint 17, which extends the full width of the flange 10 and leaf 14, is formed on the outer edges of the lateral extensions of the plates 11 and 15, said joint being preferably made flush with the outer surface of the clamping-leaf 14 and grip-piece 9, the corners of said parts being rounded to permit a rocking movement of the leaf, so as to remove it from over the flange, as will be hereinafter described.

The facing-plate 11 is preferably extended a suitable distance over the grip-piece 9 at and near the hinge-joint 17 to strengthen the connection of said facing-plate with the stock of the handle, and said extension 11^b, which is embedded in a shallow rabbet in the grip-piece, is secured to the grip-piece by screws 18.

If the clamping-leaf 14 is formed of wood, the facing-plate 15 may advantageously be extended over its entire inner surface, thereby affording strength to it; but in some cases the clamping-plate may be produced from metal and not require reinforcement by the

facing-plate 15. In this case the plate may be reduced in width and be formed as a flange 15^a (shown in Fig. 2) and is held in a rabbet in the clamping-leaf near the hinge-joint 17 by screws or rivets. A sufficient space *a* (shown in Fig. 4) is afforded between the folded clamping-leaf 14 and the flange 10 or the facing-plates thereon to permit the introduction between said plates of the heel portion 19 of a saw-blade which is to be secured removably upon the handle in a manner which will now be explained.

A latch-bolt 20 is held to slide in a cavity formed longitudinally in the clamping-leaf 14 and is preferably positioned near the upper edge of the leaf, the bolt being spring-pressed toward the front edge of the clamping-leaf by a coiled spring 21.

A keeper-loop 22 is projected at a proper point from the inner face of the facing-plate 11 and enters the cavity wherein the nose of the bolt 20 plays, and the sloped face on said nose is adapted to engage with the keeper-loop and be retracted against the stress of the spring 21 when the clamping-leaf 14 is folded upon the flange 10, the nose passing into and through the keeper-loop when the folding movement is completed, as is clearly shown in Fig. 8.

An escutcheon-plate 23 is embedded in the outer surface of the clamping-leaf 14 and held thereon by screws, this plate having a slot opposite a push-button 20^a for a loose reception of the latter, which permits the manipulation of the latch-bolt 20 for its release from the keeper-loop 22 when the clamping-leaf 14 is to be swung away from the flange 10.

Upon the inner surface of the facing-plate 11 two headed studs 24 are projected therefrom and spaced apart. Preferably they are respectively positioned near the upper and lower edges of the facing-plate mentioned. In the inner face of the clamping-leaf 14 two cavities *b* are formed of such dimensions and at such points relatively as will adapt them to receive the heads of the studs 24 when the clamping-leaf is completely folded, as is indicated for one stud in Fig. 8.

In the heel of a saw-blade—such as 19, for example—which is to be held upon the improved saw-handle two perforations *c c* are formed therein at such points as will permit the insertion of the headed studs 24 there-through when the saw-blade is imposed upon the flange 10, and for the efficient operation of the device it is essential that the rear transverse edge of the saw-blade should impinge upon the rear termination of the main portion of the facing-plate 11 or upon its lateral extension when the blade passes over the studs 24. As shown clearly in Figs. 2 and 5, the perforations *c c* are each formed of two perforations having different diameters, which merge together so as to produce slots transversely disposed in the saw-blade heel. The diameter of the smaller perforation that is part of each locking-slot *c* is such as will per-

mit the neck of a respective stud 24 to fit neatly therein and, as shown, the larger perforations that are at the lower ends of these slots have a greater diameter than the heads of the locking-studs 24. A transverse slot *d* is formed in the saw-blade 19 at a point which will adapt it to receive the keeper-loop 22 when the studs 24 pass into the lower portions of the perforations *c c*, and to this end the slot *d* is increased in length as compared with that of the keeper-loop, this excess of length being produced at the lower end of the slot.

It will be seen from the description and illustration of the means for locking the saw-blade 19 in place that this may be readily effected if the saw-blade is presented flatwise to the flange 10, with its rear transverse edge impinging upon the rear transverse extension of the facing-plate 11, and then pressing the heads of the studs 24 through the larger holes of the slots *c c*, the loop 22 passing through the slot *d* at the same time. This will dispose the saw-blade at its upper edge a slight distance above the top edge of the flange 10, and by pressing the blade down so as to render its upper edge flush with the upper edge of the flange 10 the necks of the studs 24 will enter the smaller perforations that are the upper portions of the slots *c c*, which will obviously hold the blade 19 from end motion.

A locking-stud 25 is projected from the inner surface of the clamping-leaf 14 or its facing-plate 15 or 15^a at a point which will permit said stud to pass into a slightly-elongated hole *e*, formed to receive it in the blade 19 when the clamping-leaf 14 is completely folded upon said saw-blade heel, and to accommodate the end portion of the stud 25, which is not headed, a cavity *e'* is formed in the flange 10 and facing-plate 11.

In the operation of securing the saw-blade in place between the flange 10 and clamping-leaf 14 the folding of the latter upon the saw-blade that has been previously placed in position upon the flange 10 and locked thereon by the studs 24 will cause the stud 25 to bear upon the rear end of the hole *e* and aid the studs 24 in holding the saw-blade from endwise movement. The complete folding of the clamping-leaf 14 upon the saw-blade, such as 19, will cause the latch-bolt 20 to enter the keeper-loop 22, and thus secure the clamping-leaf 14 in folded adjustment, thereby clamping the saw-blade between it and the flange 10 in a secure manner ready for service.

To release the saw-blade from the saw-handle, it is only necessary to push the button 20^a so as to retract the bolt 20 from the keeper-loop 22, which will permit the clamping-leaf 14 to be swung outwardly simultaneously with the release of said latching-bolt, an upward sliding movement of the saw-blade then removing the studs 24 from locking engagement with the slots *c c* and allowing the operator to separate the saw-blade from the improved saw-handle.

Any desired number of saw-blades of dif-

ferent sizes and kinds may be furnished for a single handle by perforating the heels of said blades in the manner hereinbefore described, so that these blades, with a single handle, will take the place of a number of saws.

The improvement is very advantageous for use of workmen—such as carpenters, builders, or shipwrights—who have to carry a number of saws to and from the place where they are working, as the saw-blades may all be removed from the handle and packed side by side in the portable tool-box and take up but little room, and any suitable blade may be fitted and secured upon the handle in a few seconds without the use of any tool to aid such a connection. The improvement furthermore reduces the amount of space required to pack saws of different kinds for shipment from the factory to places of sale, and this is a matter of importance to large manufacturers.

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

1. A saw-handle, comprising a grip-piece having a forwardly-extended flange thereon, a hinged clamping-leaf adapted to fold parallel with the flange, and a slidable bolt on the clamping-leaf which will engage with a loop projecting from the flange and hold said leaf in clamped adjustment.

2. A saw-handle, comprising a grip-piece, a flange projected forwardly therefrom of less thickness than the grip-piece, a plurality of headed studs on the flange adapted to pass through perforations in the saw-blade and interlock therewith, a hinged clamping-leaf on the grip-piece, adapted to fold upon a saw-blade heel that is held on the flange by the headed studs, and a spring-pressed slide-bolt which engages a loop projected from the flange and passing through a slot in the saw-blade, said bolt holding the leaf clamped upon the

saw-blade and only releasable by sliding manipulation.

3. In an attachable saw-handle, the combination with a grip-piece having a flange portion of reduced thickness projected forwardly therefrom, a facing-plate on the inner surface of the flange, a clamping-leaf shaped like the flange, a facing-plate thereon, a hinge-joint between lateral extensions on said facing-plates, studs having locking-heads projected from the facing-plate on the flange to enter cavities in the clamping-leaf and pass through holes in a saw-blade, a locking latch-bolt in the clamping-leaf adapted for exterior manipulation, and a keeper-loop on the facing-plate of the flange with which the nose of the latch-bolt will interlock when the clamping-leaf is completely folded.

4. In an attachable saw-handle and saw-blade, the combination with the grip-piece of the handle, a flange extended forwardly therefrom, a hinged clamping-leaf adapted to swing laterally on the grip-piece toward and from the flange thereon, a keeper-loop on the flange projecting toward the clamping-leaf, and a spring-pressed latch-bolt slidable on the clamping-leaf to engage with the keeper-loop when the clamping-leaf is folded upon the flange, of locking-studs on the flange adapted to pass through perforations in the heel of a saw-blade and interlock therewith the keeper-loop passing through a slot of said saw-blade, and a stud on the clamping-leaf interlocking within a hole in the saw-blade when the clamping-leaf is folded upon said saw-blade.

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

CHARLES W. STITES.

Witnesses:

WM. P. PATTON,
JNO. M. RITTER.