

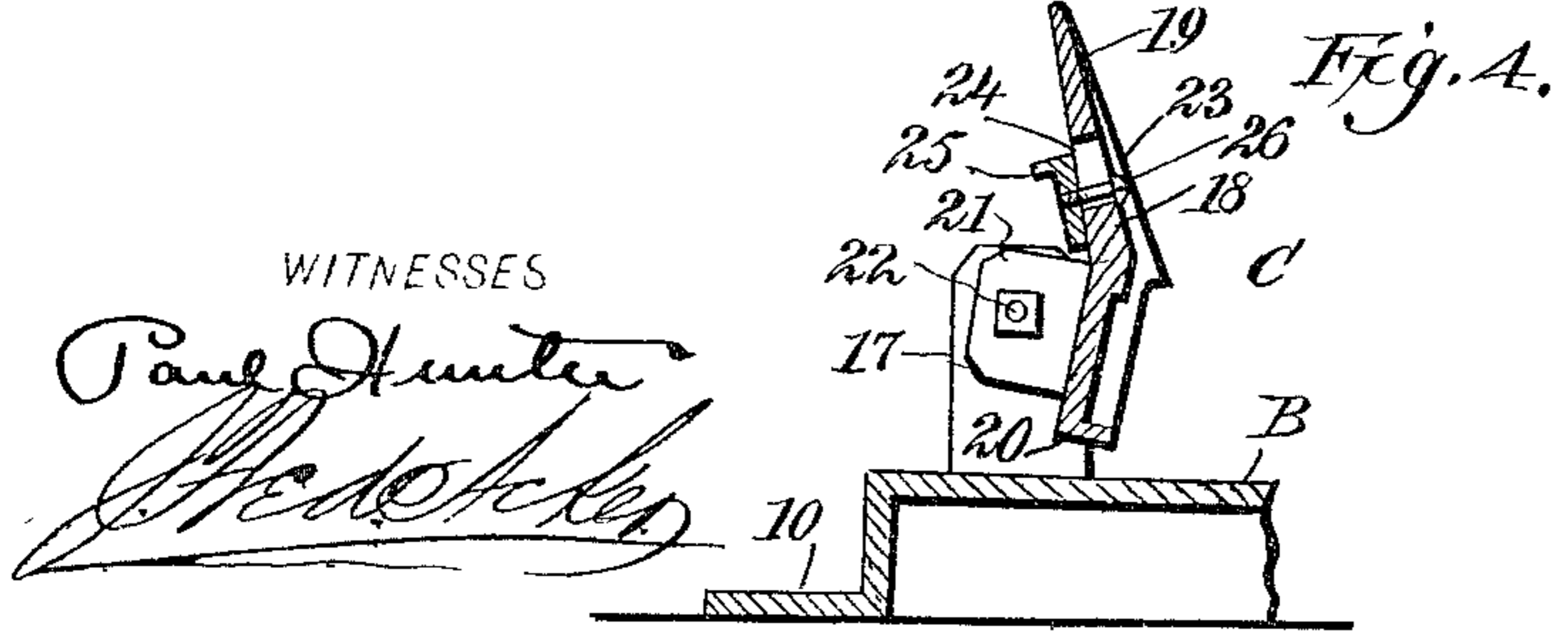
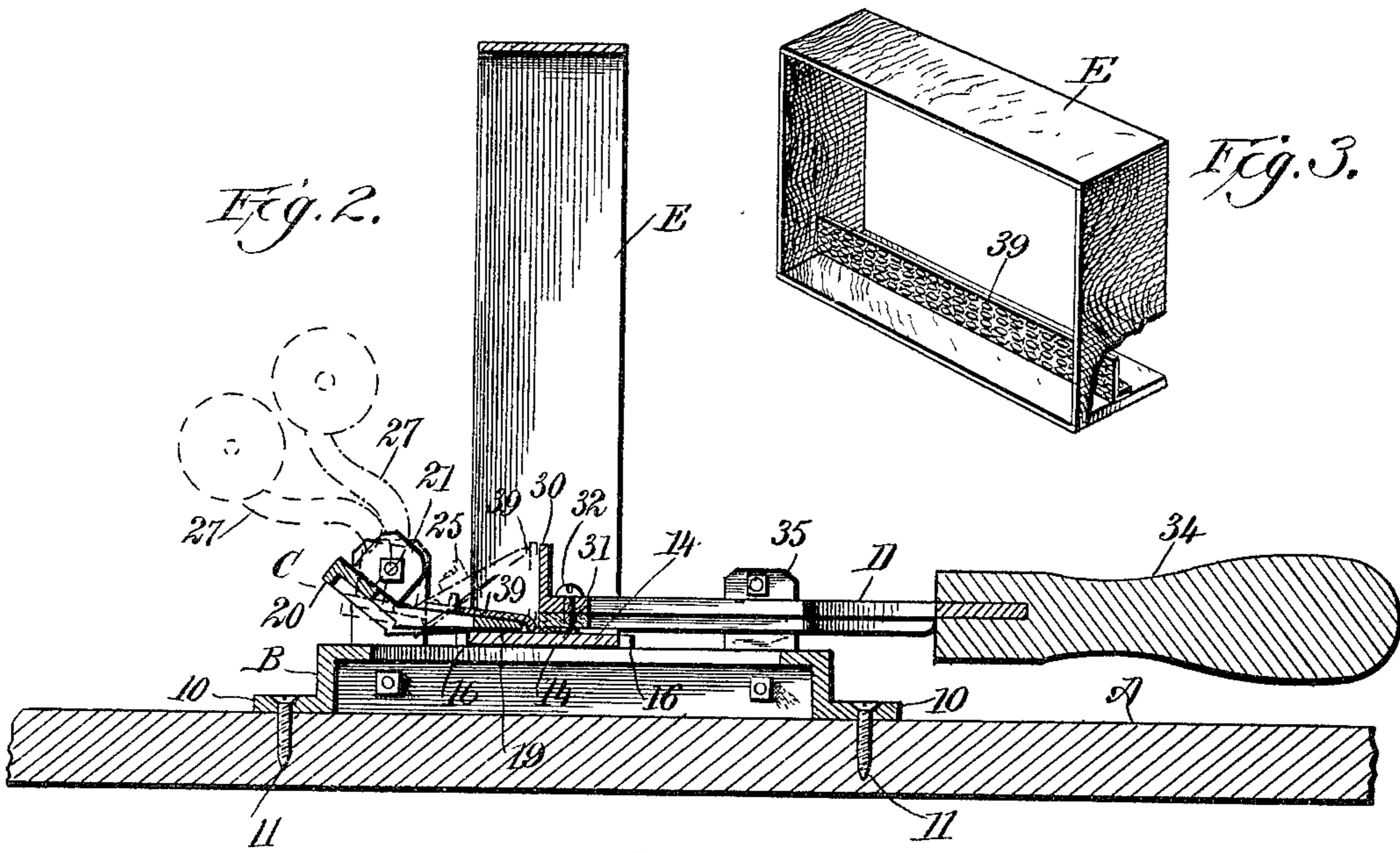
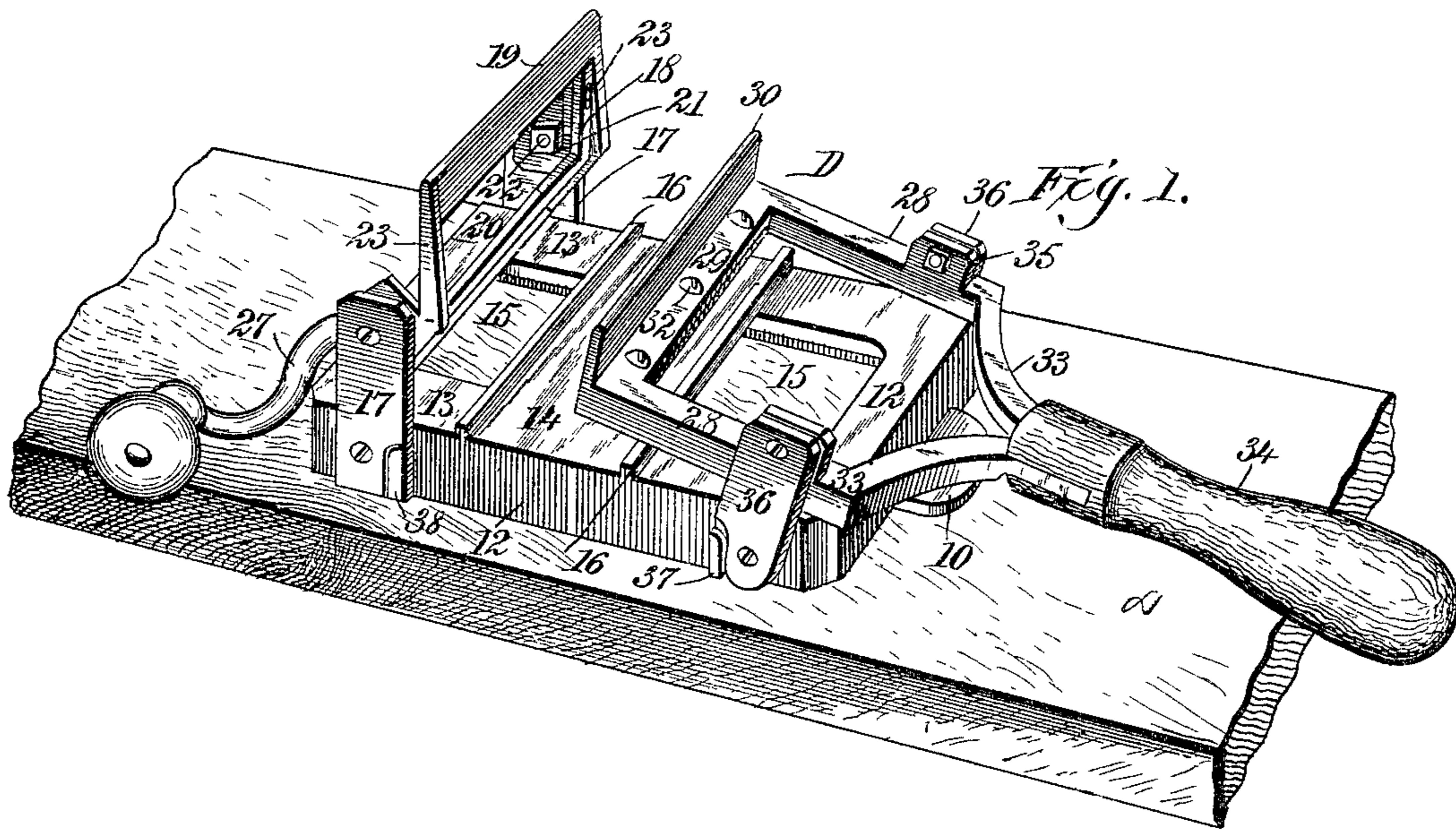
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PATENTED AUG. 18, 1903.

O. O. BORDSON.  
FOUNDATION FASTENER FOR HIVE FRAMES.

APPLICATION FILED MAY 14, 1903.

NO MODEL.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

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## FOUNDATION-FASTENER FOR HIVE-FRAMES.

SPECIFICATION forming part of Letters Patent No. 736,679, dated August 18, 1903.

Application filed May 14, 1903. Serial No. 157,065. (No model.)

*To all whom it may concern:*

Be it known that I, OLE O. BORDSON, a citizen of the United States, and a resident of Black Earth, in the county of Dane and State of Wisconsin, have invented a new and Improved Foundation - Fastener for Hive-Frames, of which the following is a full, clear, and exact description.

The purpose of my invention is to provide a device especially adapted to secure or fasten a foundation-comb in a box or frame which is to be placed in a beehive in order that the bees may build up honey-cells from the foundation provided for them and to so construct the device that it will comprise but few parts and wherein the parts may be expeditiously and conveniently operated to securely place the foundation-comb in the hive-frame and so that all parts of the device may be kept clean, and the device will be light, yet durable, and may be readily carried from one place to another and will occupy but a small space in storage.

Another purpose of the invention is to provide a construction of device of the character described which will consist of a base adapted to receive a hive frame, a shaping member for the foundation-comb, and an anvil member against which the shaping member operates.

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 device. Fig. 2 is a longitudinal sectional view through the device, illustrating the shaping-frame in two positions and the device in operative relation to a foundation-comb and frame to receive the comb. Fig. 3 is a perspective view of a hive-frame, a portion whereof is broken away, and a perspective view of a foundation-comb in position in the frame; and Fig. 4 is a vertical section through the shaping frame or member of the device, the latter being in the upright or idle position, which position it occupies after having assisted in affixing a foun-

dation-comb and a partial longitudinal section through the base of the device.

A represents a support for the device, which may be a board or a block of any suitable material; but this support A need not constitute a portion of the device, as the device may be secured to any convenient support.

The device proper consists of a base B, a shaping-frame C, and an anvil-frame D, the two frames or members C and D being arranged to operate in conjunction one with the other. The base B is preferably made hollow, so as to be as light as possible consistent with strength, and is provided with lugs 10 at its outer and inner ends, whereby the said base may be secured to the support A or other convenient support by means of suitable screws 11, as is shown in Fig. 2. In the construction of the base it is given more or less of a skeleton form, being provided with upper side sections 13 and end sections 12, connecting the side sections, together with a central platform-section 14, extending from one side to the other and separated from the end sections by spaces 15 of desired dimensions. In the further construction of the said base B upwardly-extending transverse ribs 16 are formed or located at the longitudinal edges of the platform section 14 of the frame, as is best shown in Fig. 1. This platform-section 14 is adapted to receive between its ribs 16 one member, the lower member, for example, of a frame or open box E in which the honey-cells are to be formed, in which frame the comb foundation is to be secured.

At what may be termed the "outer" end of the base B, at each side, upwardly-extending standards 17 are secured in any suitable or approved manner, and between these standards the shaping frame or member C of the device is mounted for pivotal movement. This shaping frame or member C is of skeleton construction, and its side portions 18 are angular to such an extent that when the shaping member C is in the upper position (shown in Figs. 1 and 4) the upper cross-bar 19 of the said shaping-frame will extend beyond the vertical plane of the lower cross-bar 20. At the lower outer part of the side portions 18 of the said shaping frame or member C outwardly-extending lugs 21 are formed, and

these lugs are pivoted to the standards 17 of the base by means of suitable pivot members 22. In the further construction of the shaping frame or member C side flanges 23 are formed at the outer end portions of the upper section of the said frame or member, as is shown in Figs. 1 and 4, which flanges 23 follow the inclination of the said upper section of the frame to a greater or less extent, and in the upper, or, as it may be properly termed, the "inner," sections of the said side pieces of the frame or member C longitudinal slots 24 are produced. At the rear of these slots or at the outer face of the said frame or member C supporting-blocks 25 are located, having flanges at their outer ends extending at right angles from the said frame. These supporting-blocks 25 are adapted to engage with one longitudinal edge of the foundation-comb when it is to be affixed to the box or frame E, as will be hereinafter described. These adjusting blocks 25 are adjustable, so that they may be accommodated to foundation-combs of any desired width, and are adjustably mounted on the said shaping frame or member C by suitable set-screws 26, passed through the slots 24 in the said frame.

The shaping frame or member C is rocked upon its pivotal supports by means of a handle 27, secured to the outer or lower portion of the frame in any suitable or approved manner, and the grip portion of this handle is preferably made to extend out beyond the left-hand side of the base B. At the opposite or inner end of the base B the anvil-frame D, heretofore referred to, is pivotally mounted, and is likewise mounted to rock on the base to and from the shaping-frame C. This anvil-frame D is likewise of skeleton construction and comprises side members 28 and an inner cross-connecting member 29, having an upwardly-extending flange 30 at its inner end, the said flange being flush with the inner end portions of the sides 28, as is shown in Fig. 1, and in the under face of the forward cross or connecting member 29 of the anvil-frame D a longitudinal recess is made, extending transversely with relation to the base, and in this recess a strip of leather 31 is secured by screws 32; but the strip 31 may be made of any suitable yielding material, although leather has been found to be best adapted for the purpose, as it readily releases itself from the wax which it is adapted to compress and of which material the foundation is constructed. This strip 31 is preferably flush at its under face with the under surface or face of the anvil-frame.

At the outer or forward end of the said anvil-frame D the said frame is provided with fork members 33, which are secured in any suitable or approved manner to a handle 34, and near the outer ends of the side portions 28 of the said anvil-frame D upwardly-extending lugs 35 are formed. These lugs are pivotally connected with the upper ends of rocking standards 36, pivotally mounted at their lower ends upon the sides of the base B, and the

rocking standards 36 are limited in their forward or inward movement by stops 37, which are attached to or integrally formed at the sides of the base B, the said rocking standards 36 being preferably suitably recessed to receive the said stops when the rocking standards are at the desired limit of their inward throw, and in order that the standards 17, which pivotally support the shaping frame or member C, shall not move inward beyond a perpendicular position stops 38 are provided also for these standards 17, secured to the base B, as is shown in Fig. 1.

The foundation-comb 39 is of wax and is initially in the form of a sheet, being preferably provided with any desired number of perforations, as is shown in Fig. 3.

In the operation of the device the frame E is placed upon the platform 14, as is shown in Fig. 2. The shaping frame or member C is then carried downward from the position shown in Fig. 1 to the position shown in positive lines in Fig. 2, causing the outer longitudinal member of the upper or inner section of the said shaping - frame to rest upon the inner face of the bottom member of the said frame E. At this time the anvil frame or member D will have been elevated at its inner end and will have been dropped outward as far as possible, occupying the position shown in Fig. 1. Next, the anvil frame or member D is rocked inward, so as to bring its inner portion or that portion fitted with the leather or yielding strip 31 over the inner portion of the foundation material 39, and then the handle 34 is raised, so as to press the inner portion of the said foundation material firmly against the bottom portion of the frame E, causing it to adhere thereto. The handle 34 is then held in its upper position, while the handle 27 is turned so as to elevate the shaping frame or member C, as is shown in dotted lines in Fig. 2, whereupon that portion of the foundation material 39 which rested upon the shaping frame or member C will have been carried to an upper vertical position in engagement with the flange or anvil-face of the anvil frame D, as is shown in Fig. 2. Finally, the anvil-frame D is again restored to its normal upper or outer position, (shown in Fig. 1,) enabling the frame E, with the foundation attached, to be removed from the device and replaced by another frame to receive its foundation.

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

1. A foundation-fastener for hive-frames, consisting of a base having a platform-section adapted for the reception of a hive-frame, a shaping frame or member pivoted at one end of the base and adapted to rock to and from the platform, and an anvil frame or member at the opposite portion of the base, having rocking and pivotal movement with relation to the said platform, as set forth.

2. A foundation-fastener for hive-frames,

consisting of a base having a flanged platform formed thereon, an angular shaping - frame mounted to rock at one end of the base to and from the platform, supporting-blocks carried 5 by the said shaping frame or member, and an opposing anvil frame having rocking and pivotal relation with respect to the platform, the anvil-frame being provided at its inner end with an upwardly - extending anvil - section 10 against which the material is laid by the shaping-frame, the anvil-section also serving to hold the material in place while it is acted upon by the shaping frame or member, as described.

15 3. A foundation-fastener for hive-frames, comprising a base having an upper platform with side flanges, an angular shaping frame or member pivotally mounted at one end of the base and adapted in its lower position to 20 extend at its inner portion over the platform, adjustable supporting-blocks carried by the side portions of the shaping frame or member,

a handle for operating the said shaping frame or member, an anvil-frame located at the opposite end of the base, supports for the said 25 anvil-frame to which the frame is pivoted, said supports having pivotal and limited movement on the base, whereby the inner end of the anvil-frame may extend over the said platform and be carried to and from it laterally 30 as well as vertically, an upwardly-extending anvil - flange located at the inner end of the anvil-frame, and a yielding compression-strip embedded in the lower face of the inner portion of the said anvil-frame, whereby to operate 35 it, for the purpose set forth.

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

OLE O. BORDSON.

Witnesses:

D. A. BARBER,  
C. M. OLSEN.