

No. 654,845.

Patented July 31, 1900.

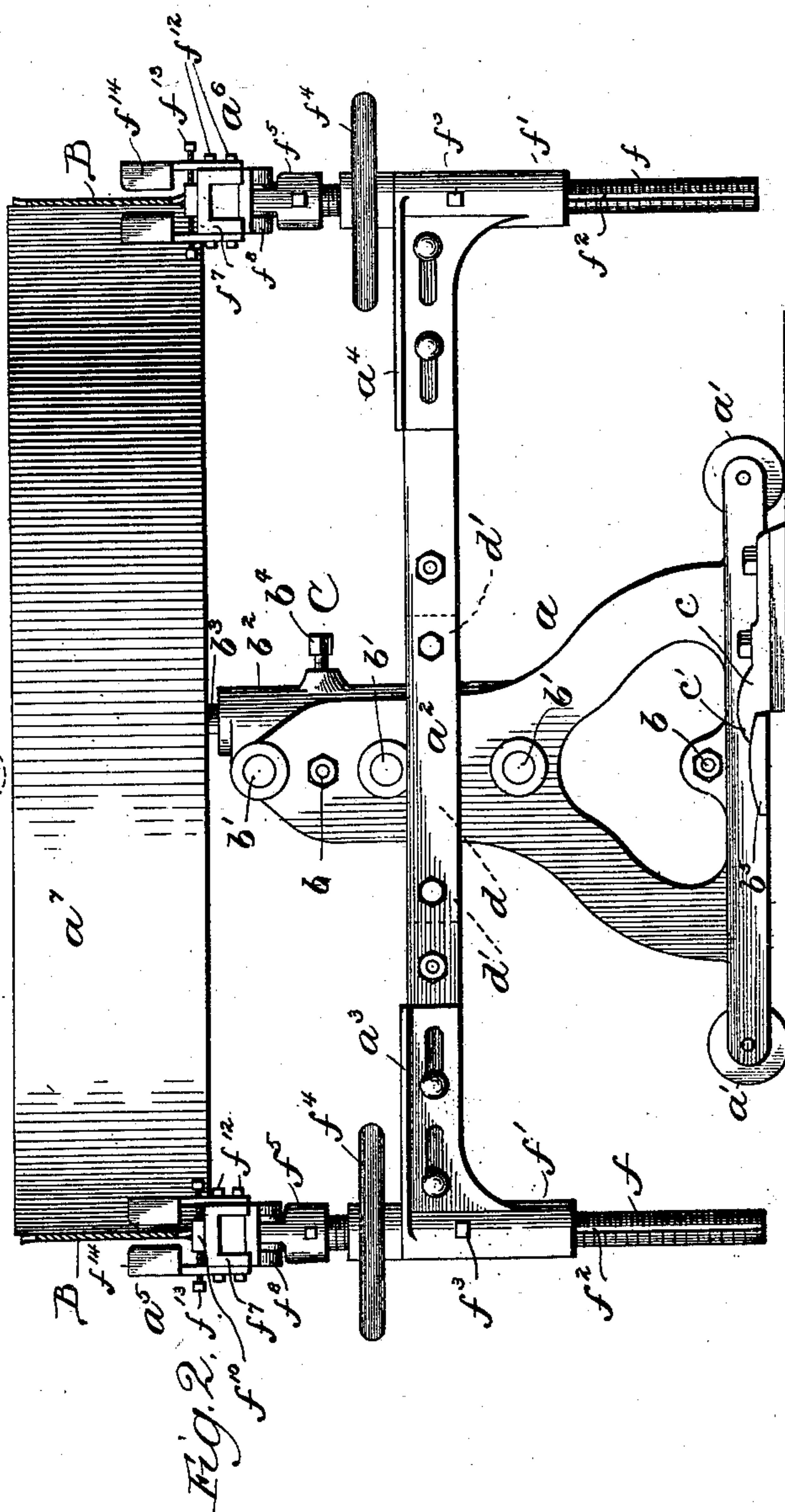
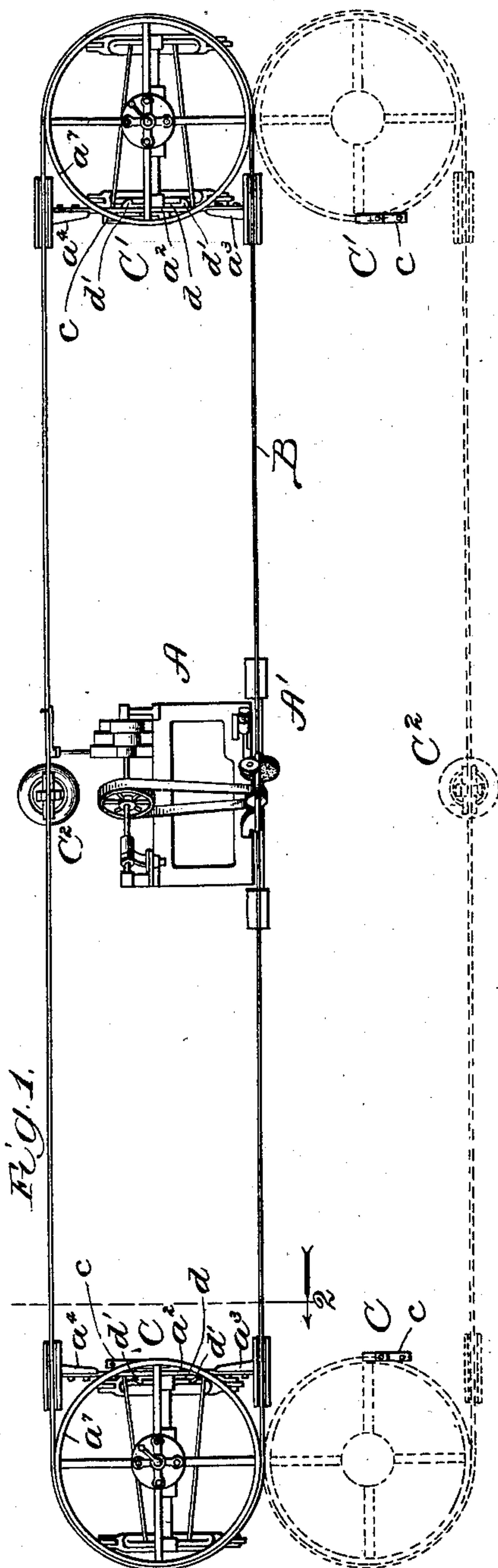
H. P. SCHOFIELD.

SAW SUPPORT.

(Application filed Mar. 24, 1900.)

(No Model.)

2 Sheets—Sheet 1.



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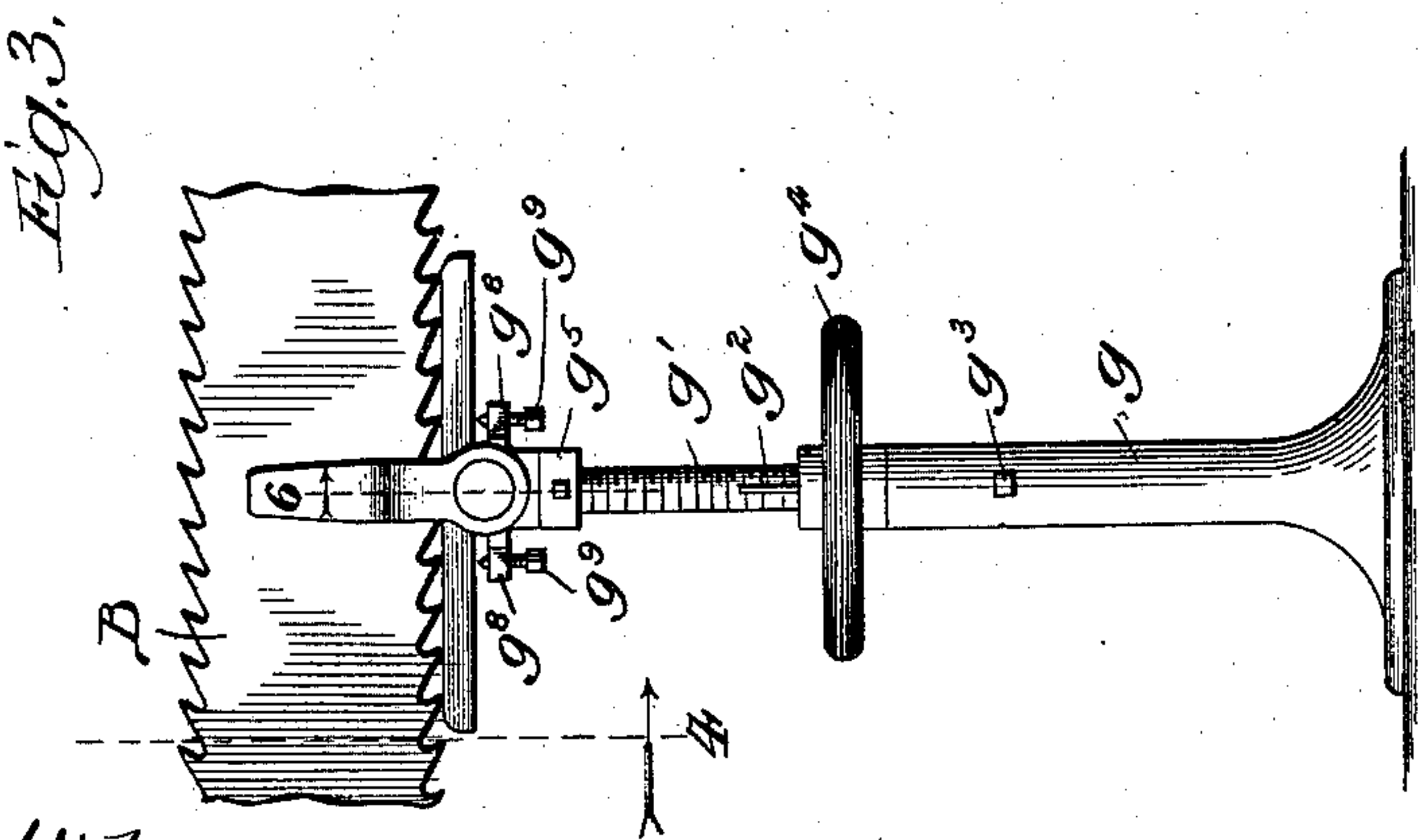
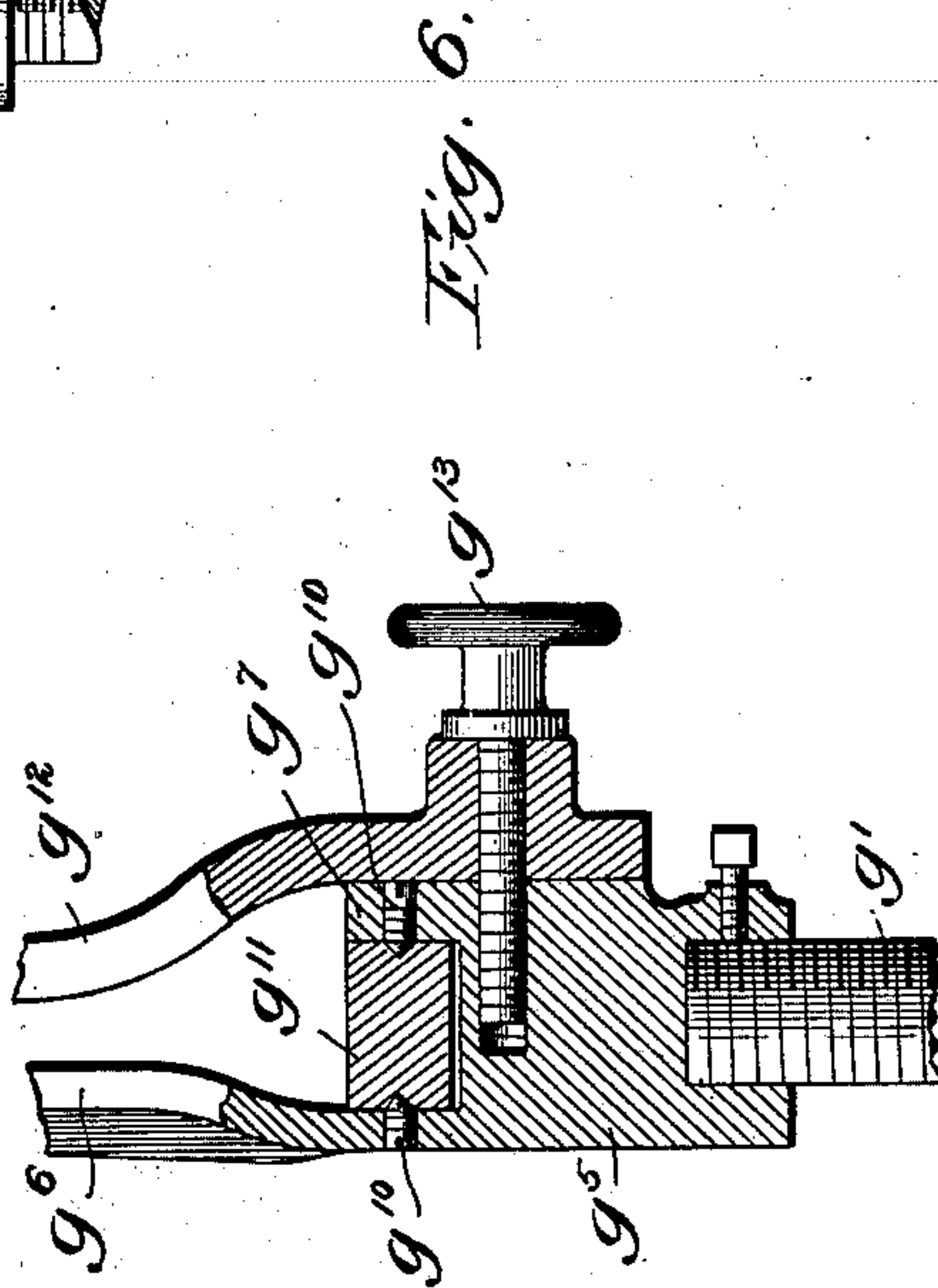
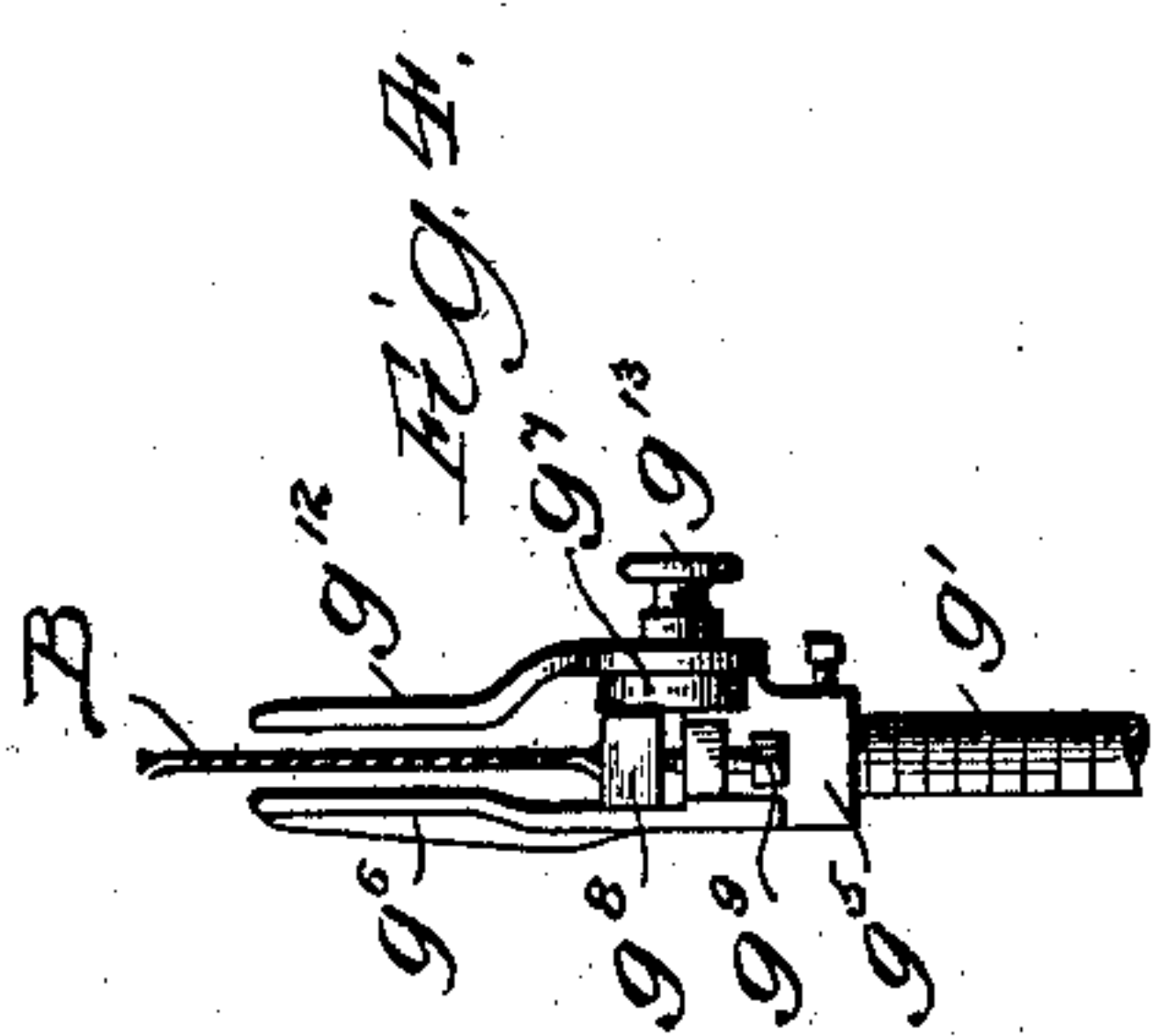
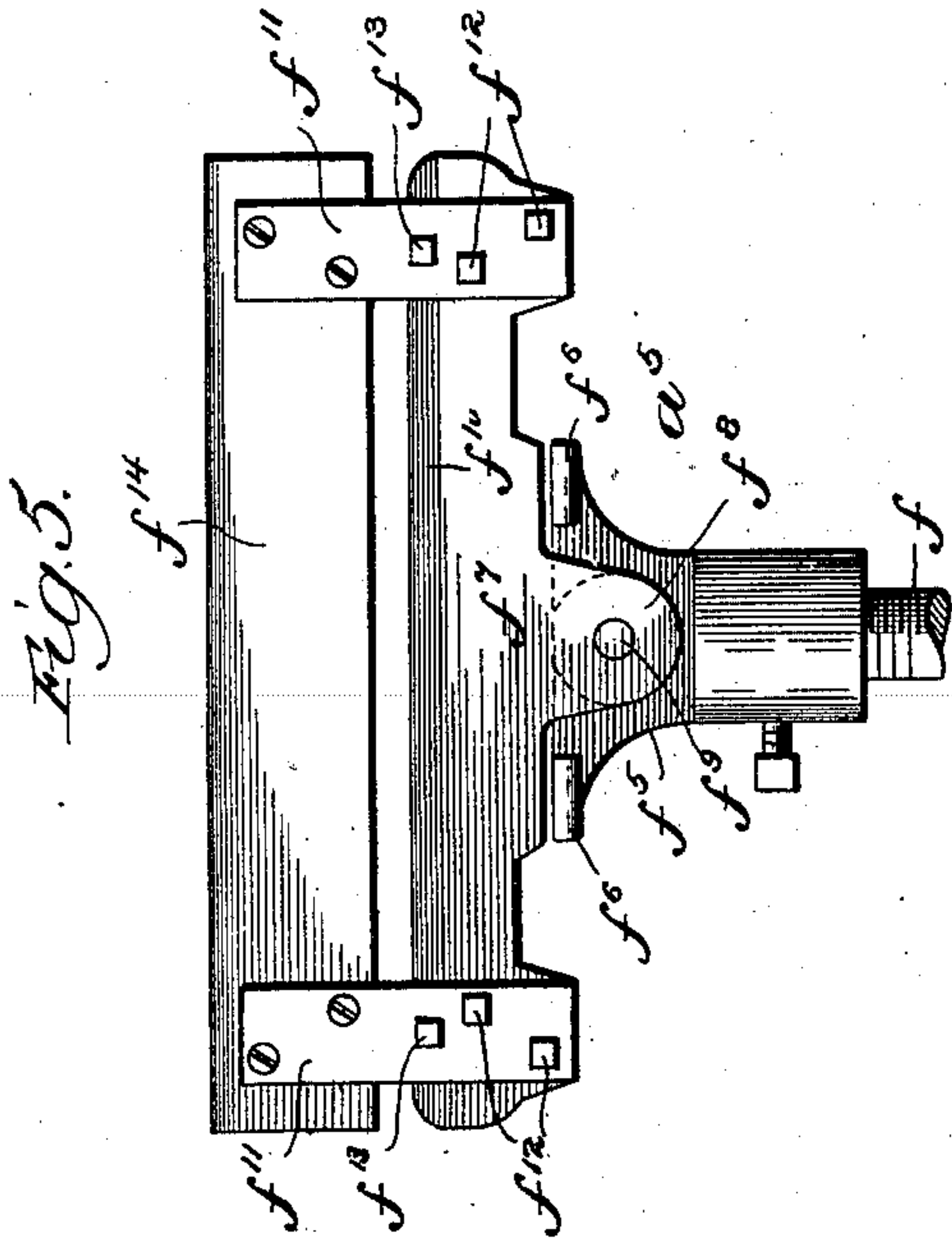
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2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

HENRY P. SCHOFIELD, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO
L. L. FILSTRUP, OF SAME PLACE.

SAW-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 654,845, dated July 31, 1900.

Application filed March 24, 1900. Serial No. 10,000. (No model.)

To all whom it may concern:

Be it known that I, HENRY P. SCHOFIELD, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Saw-Supports, of which the following is a specification.

My invention relates particularly to an improvement in saw-supports for use in supporting and guiding band-saws during the operation of sharpening.

My object is to provide a support bearing a self-adjusting guide of simple construction.

In my application, Serial No. 9,998, filed on even date herewith, I have shown one embodiment of my invention in the form of a guide attached directly to a saw-sharpening machine. In the accompanying drawings a saw-sharpening machine and a guide of the construction shown in said application are merely indicated to show the position of the sharpening-machine relative to the independent supports herein fully described and claimed.

In the drawings, Figure 1 is a plan view showing relative positions of a saw-sharpening machine, band-saw, and supports for the saw; Fig. 2, a view in elevation of one of the independent end saw-supports, the saw being shown in section, as indicated at line 2 of Fig. 1; Fig. 3, a view in side elevation of an intermediate independent support; Fig. 4, a view taken as indicated at line 4 of Fig. 3; Fig. 5, a broken view, in side elevation, of one of the guides of an end saw-support; and Fig. 6, a sectional view taken as indicated at line 6 of Fig. 3.

A represents a saw-sharpening machine provided at its front side with a saw-support A'; B, a band-saw in position for sharpening; C C', independent and similar end saw-supports, and C² an independent intermediate saw-support.

As is well understood, a band-saw having teeth on both edges assumes different positions relative to the sharpening-machine according to the set of teeth being operated upon. In one case the saw passes about the machine, as shown in full lines in Fig. 1, and in another case the saw is kept wholly in front of the machine, as shown in dotted lines in

Fig. 1. In any case the saw is fed across the front of the sharpening-machine and sharpened automatically.

The support C comprises a base *a*, mounted on rollers *a'*; a laterally-extending bar *a*², secured to the inner end of said base; adjustable bracket-arms *a*³ and *a*⁴, carried by the ends of the bar *a*²; adjustable similar guides *a*⁵ and *a*⁶, supported from said bracket-arms, and an adjustable horizontally-disposed wheel or pulley *a*⁷ for receiving the loop or end of the saw.

The base *a* comprises two ends connected by rods or braces *b* and guides *b'*, to the latter of which is adjustably secured in the usual manner a vertical sleeve or bearing *b*², said sleeve being internally threaded in the usual manner to receive the stem or spindle *b*³, supporting the wheel *a*⁷. The stem *b*³ is secured at any desired height by a set-screw *b*⁴. The inner end of the base *a* is provided on its surface toward the saw-sharpening machine and close to the floor-line with a lug *b*⁵, having a curved or double incline upper surface, as shown. Transversely-extending stops *c*, secured to the floor and having inwardly-projecting lug-engaging ends or shoulders *c'*, serve to mark the two positions of the end support, as shown in Fig. 1. As shown in Figs. 1 and 2, the face of the inner end or standard of the base is provided with a raised part or boss *d*, having lateral extensions *d'*, to which the bar *a*² is bolted.

The guide *a*⁵ comprises a threaded stem *f*, passing loosely through a sleeve *f'* and provided with a way or groove *f*², which receives the inner end of a set-screw *f*³; an adjusting-wheel *f*⁴, resting on the top of said sleeve and having threaded connection with said stem; a stop-bearing head *f*⁵, fixed to the top of the stem *f* and having laterally-extending stops *f*⁶; a block *f*⁷, provided at its lower central portion with pivot-receiving lugs *f*⁸, embracing the sides of the head *f*⁷ and connected therewith by a pin *f*⁹; a tempered-steel saw-bearing strip *f*¹⁰, resting on the block *f*⁷; vertically-disposed blocks or standards *f*¹¹, flanking the ends of the block *f*⁷ and secured by bolts *f*¹²; bolts *f*¹³, passing through the pieces *f*¹¹ and bearing at their inner ends against the bearing-strip *f*¹⁰, which is thereby centered, and

horizontally-disposed longitudinally-extending strips f^{14} , preferably of wood, supported by the standards f^{11} and having between them a saw-receiving channel.

5 The guides a^5 and a^6 are alike and are so adjusted that the vertical center planes of their channels are tangential to the circumference of the wheel a^7 . The stops f^6 are normally separated by a small space from the adjacent portions of the pivoted block f^7 , and thus the saw-bearing is left free to adjust itself so as to give full-length contact with the saw.

15 The support C' is like the support C , and the floor-stops c therefor are arranged in the same manner as those of the support C .

The support C^2 , Figs. 3, 4, and 6, comprises a hollow base g ; a threaded stem g' , passing loosely thereinto and provided with a way or groove g^2 , engaged by a set-screw g^3 , extending through said base and into said way; an adjusting-wheel g^4 , resting on the top of said base and having threaded connection with said stem; a cast-metal head g^5 , fixed to said stem and provided on one side with an integrally-formed vertical guide-arm g^6 and on the opposite side with a pivot-lug g^7 and on opposite sides of a vertical transverse plane through said arm and lug with lugs g^8 , receiving adjustable stops or set-screws g^9 ; headless pointed pivotal screws g^{10} , passing through the base of the arm g^6 and through the lug g^7 ; a tempered-steel bearing-strip g^{11} , having central side depressions to receive the ends of said pivotal screws, and a guide-arm g^{12} , secured to the head g^5 by a screw g^{13} . The saw-receiving channel is between the arms g^6 and g^{12} , while the bearing-strip g^{11} is below said channel and normally free to adjust itself to the saw, the set-screws g^9 being not quite in contact with the lower surface of said strip.

45 The intermediate support C^2 is used either in the rear or in front of the sharpening-machine, depending on the position of the saw. Additional supports may be used, if desired.

It will be noted that in all the supports the guides are free to adjust themselves to the saw; also, it will be understood that the hand-wheels connected with the threaded stems of the guides serve merely to lift the guides and that the guides settle back under their own weight when the hand-wheels are turned in a direction to raise them on their stems, and, finally, it may be stated that the channel bottoms of the guides are only by preference equipped with steel bearing-strips rather than with bearings of some other form.

60 What I claim as new, and desire to secure by Letters Patent, is—

1. In a saw-support for band-saws, the combination of a suitable base, and a bearing for the saw supported between its ends on said base and left free to swing in the plane of the saw, to adjust itself automatically, substantially as and for the purpose set forth. 65

2. In a saw-support, the combination of a suitable base, a bearing for the saw, and transversely-extending horizontally-disposed pivotal connection between said bearing and base, said bearing being left free to swing in the plane of the saw and thereby adjust itself automatically, substantially as and for the purpose set forth. 70

3. In a saw-support, the combination of a suitable base, a threaded stem passing loosely thereinto and provided with a way, a set-screw projecting into said way, an adjusting-wheel resting on the base and having threaded connection with said stem, and a saw-bearing carried by said stem, substantially as and for the purpose set forth. 80

4. In a saw-support, the combination of a suitable base, a head supported therefrom, adjustable stops carried by said head, and a saw-bearing receiving the teeth of the saw and having pivotal connection with said head and limited in its movement by said stops, substantially as and for the purpose set forth. 85

5. In a saw-support, the combination of a suitable base, a stem projecting upwardly therefrom, means for raising and lowering said stem, a head carried by said stem provided with two stops, and a bar-form saw-bearing pivoted on a transversely-extending pivot intermediate said stops and left free to swing in the plane of the saw, substantially as and for the purpose set forth. 90

6. In a saw-support, the combination of a suitable base, a stem projecting upwardly therefrom, means for raising and lowering said stem, a head carried by said stem provided with two stops, a block provided with lugs embracing said head intermediate said stops, pivotal connection between lugs and head, and a saw-bearing and side guide-strips connected with said block, substantially as and for the purpose set forth. 105

7. The combination with a saw-support for the loop or end of a band-saw, comprising a base mounted on rollers and provided with a stop-engaging lug, suitable guides and a wheel for the saw, of two floor-stops located to singly and detachably engage said lug in either of the principal positions of the support, substantially as and for the purpose set forth. 110

HENRY P. SCHOFIELD.

In presence of—

D. W. LEE,
A. D. BACCI.