

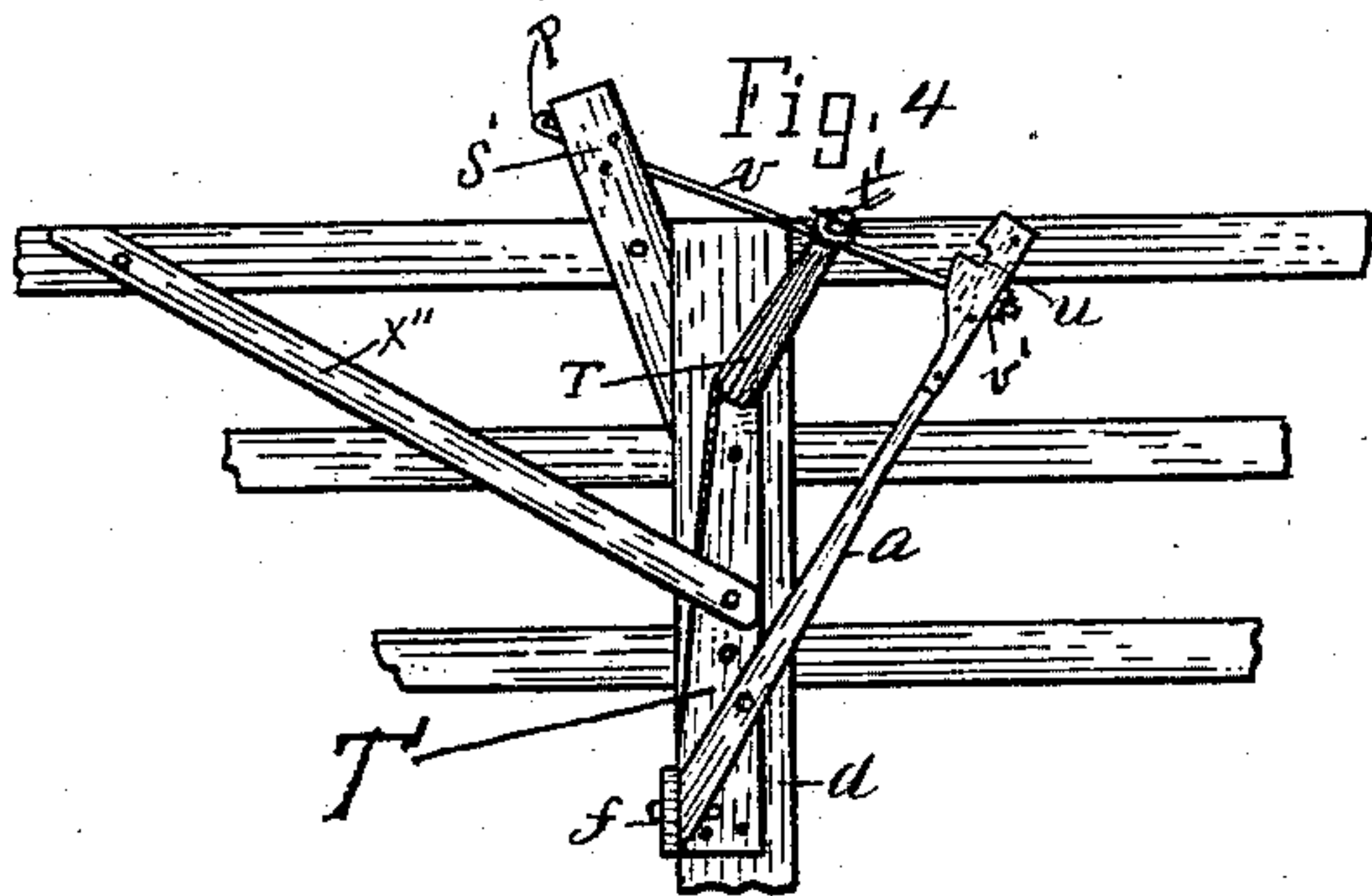
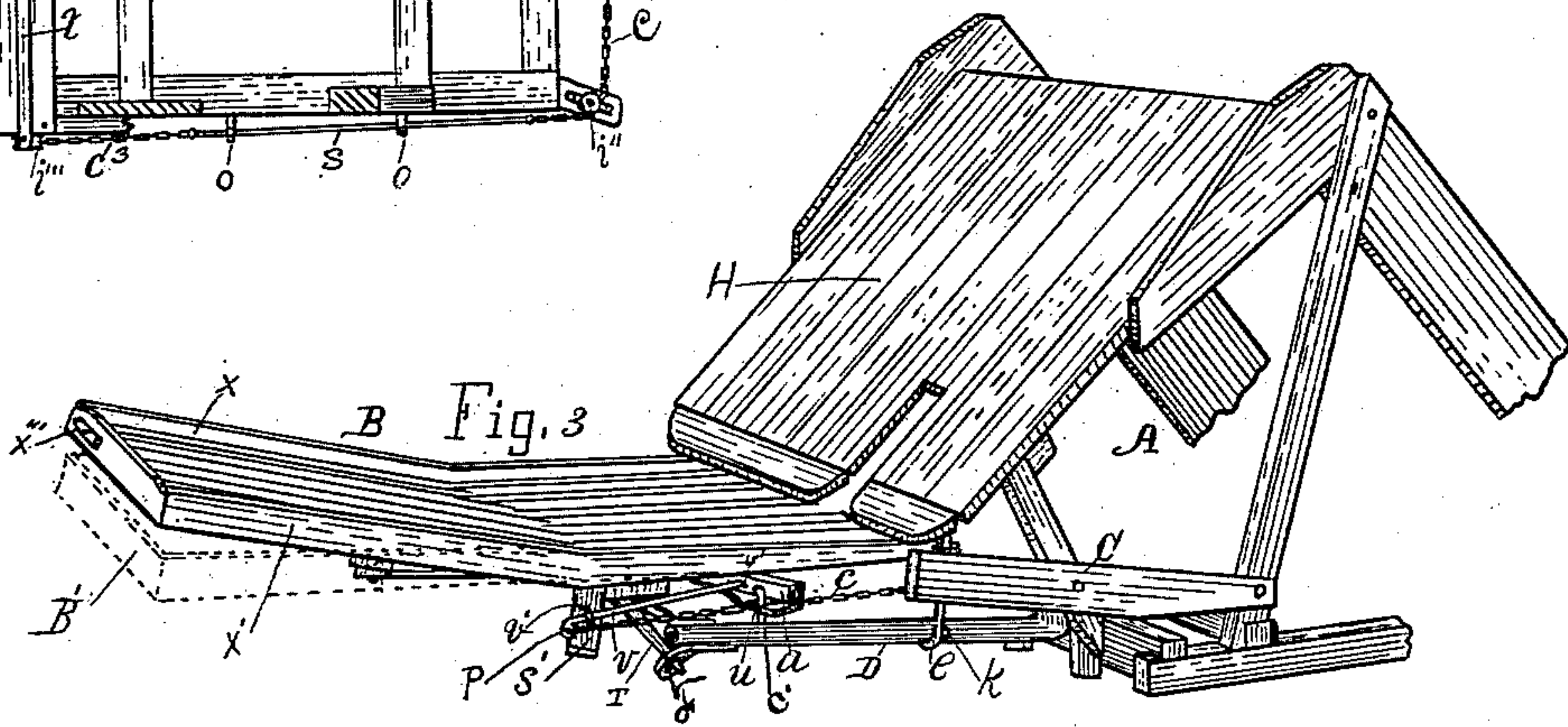
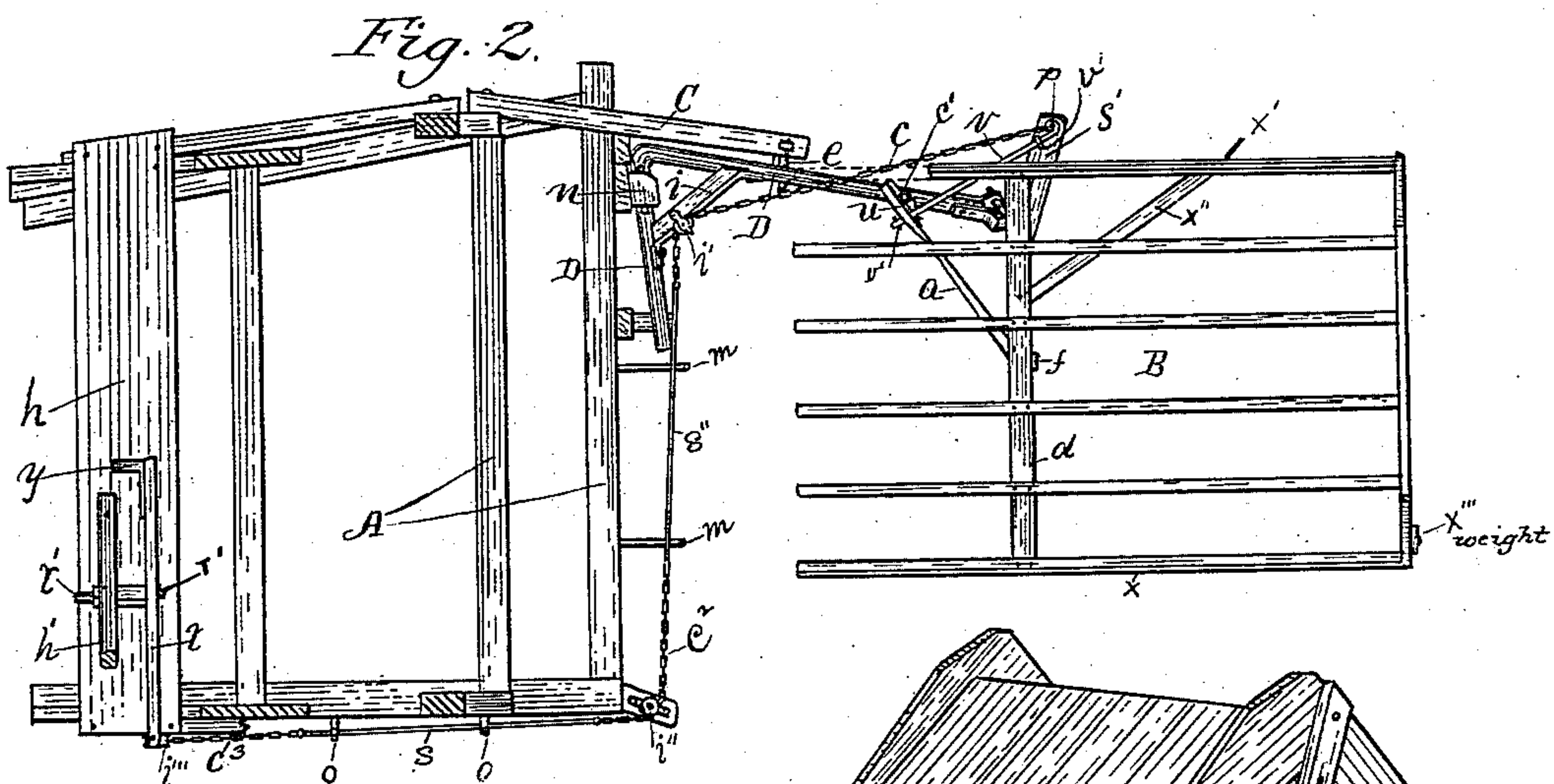
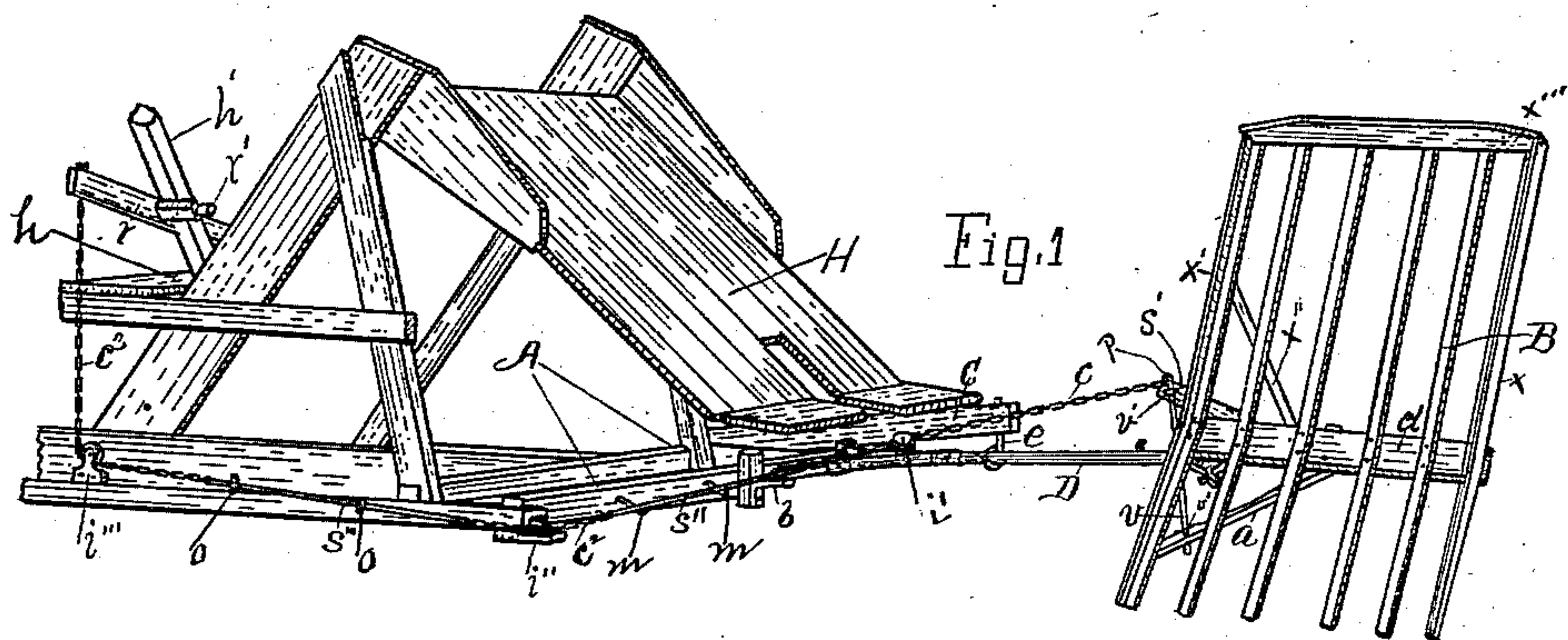
(No Model.)

2 Sheets—Sheet 1.

A. JEWELL.
SHEAF CARRIER.

No. 379,223.

Patented Mar. 13, 1888.



Witnesses:
John C. Perkins.
Bell M. Moore.

Inventor.
Augustus Jewell

(No Model.)

2 Sheets—Sheet 2.

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Fig. 5

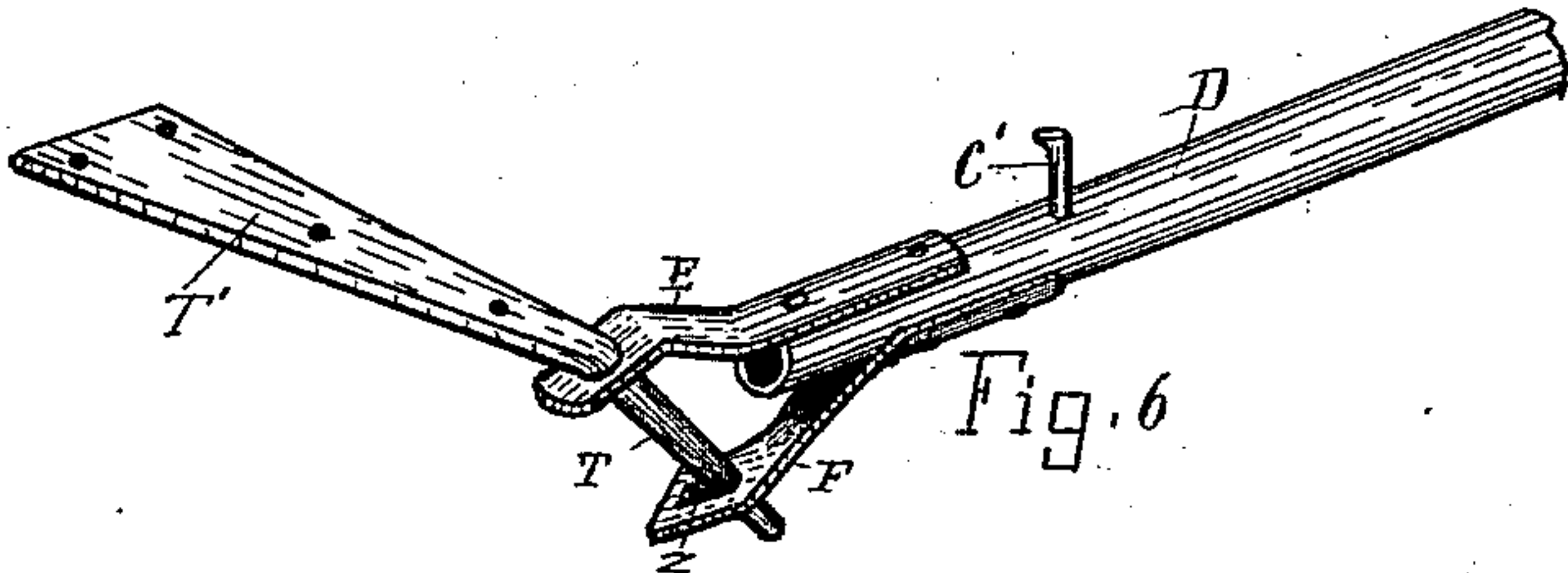
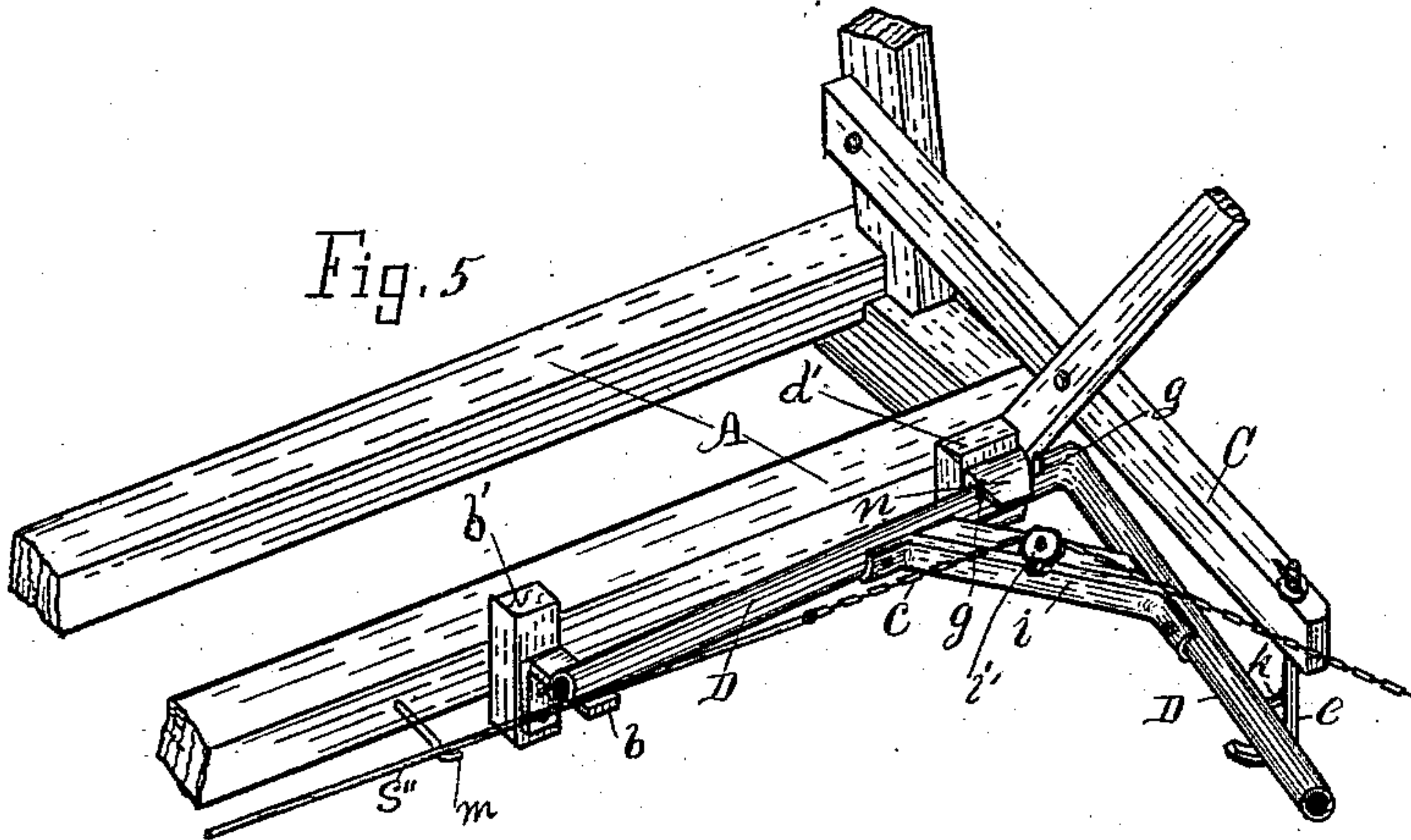


Fig. 6

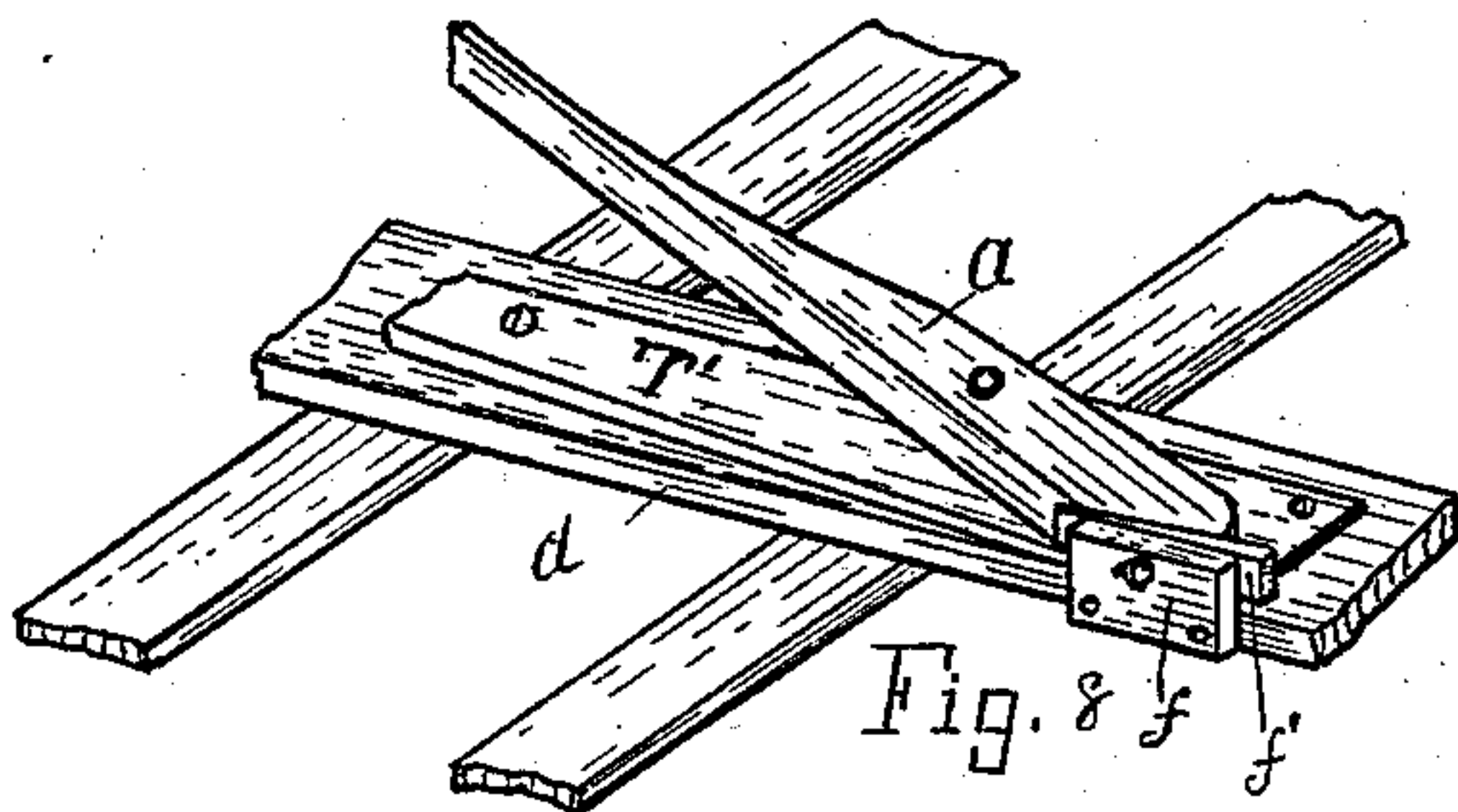


Fig. 8

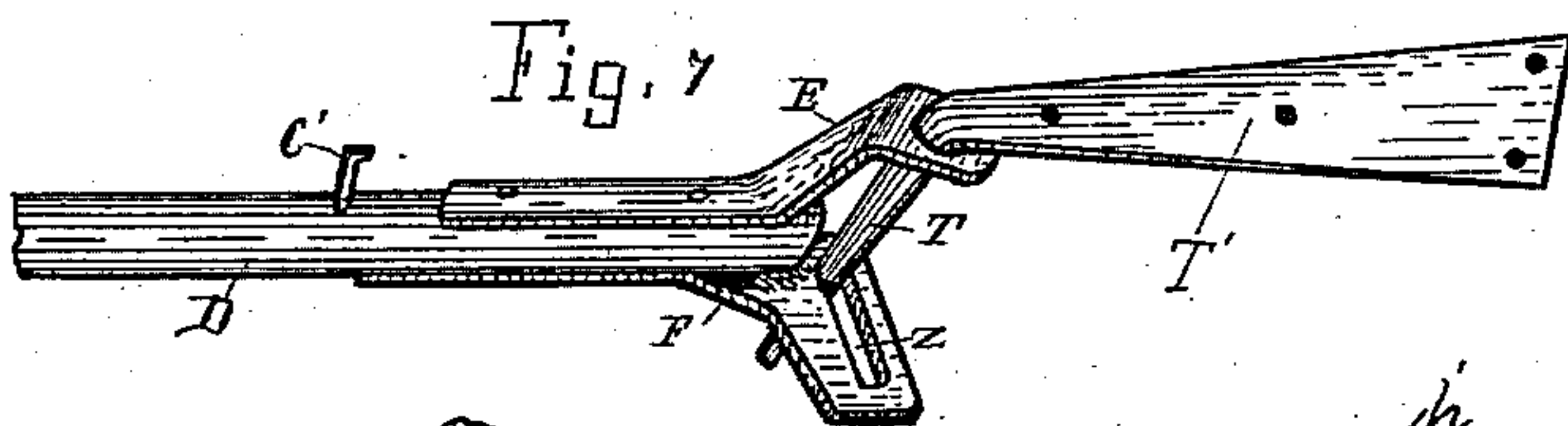


Fig. 7

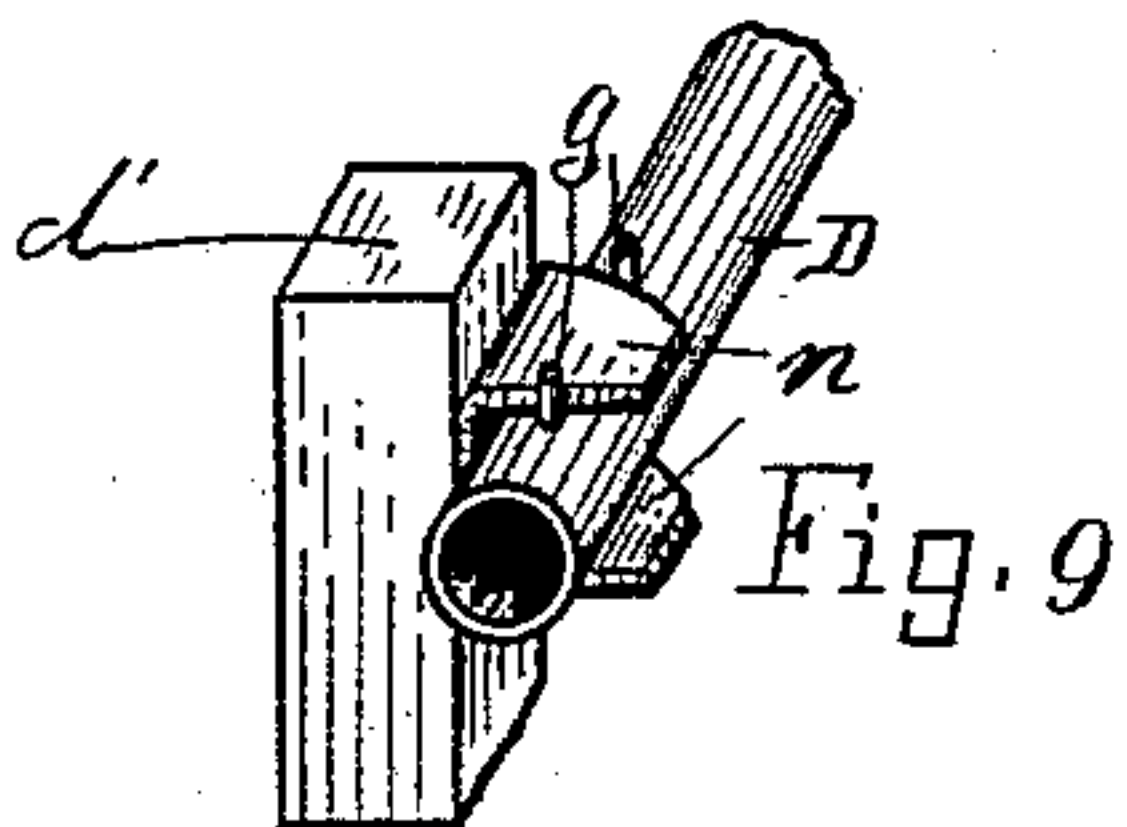


Fig. 9

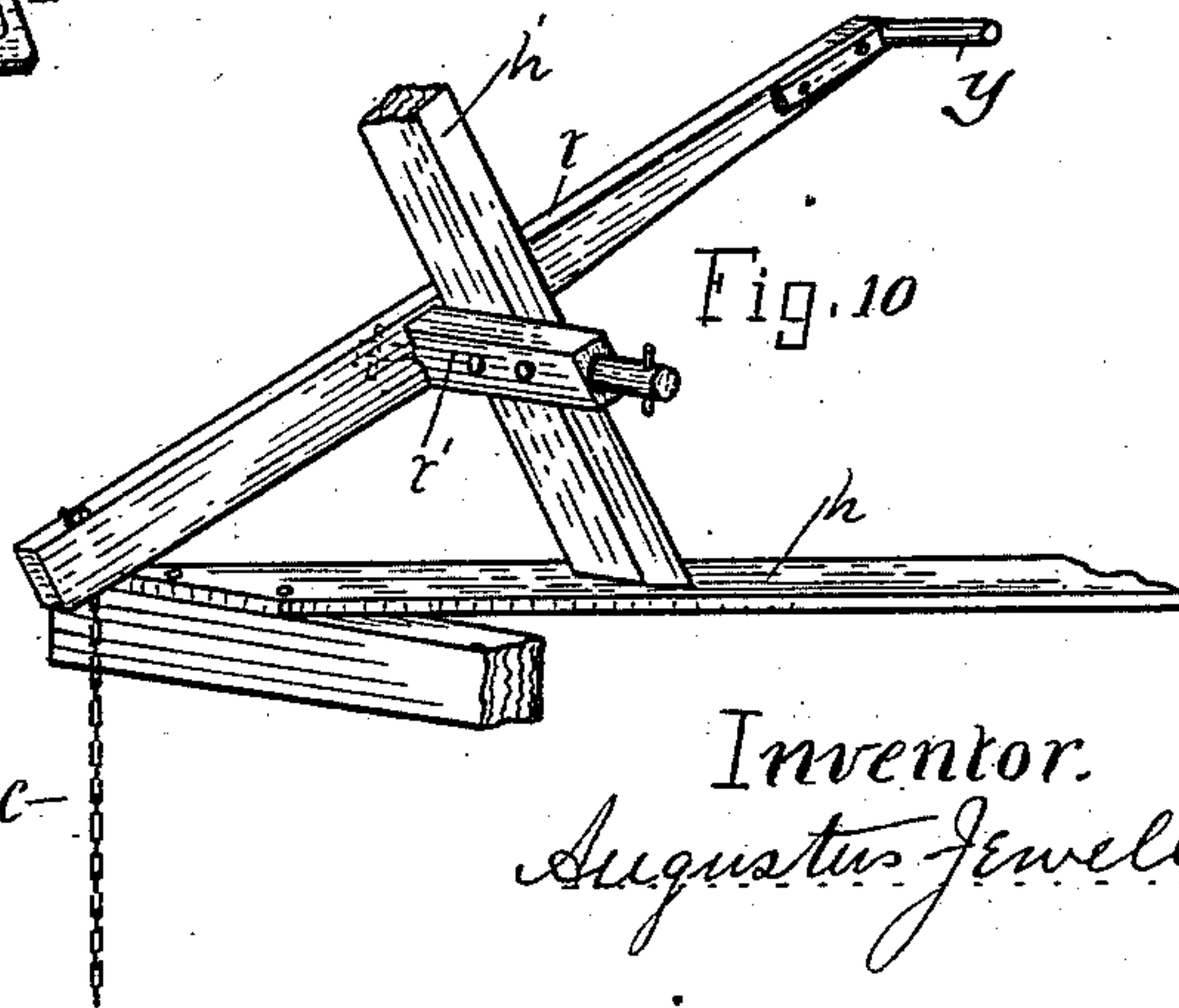


Fig. 10

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UNITED STATES PATENT OFFICE.

AUGUSTUS JEWELL, OF DOWAGIAC, MICHIGAN.

SHEAF-CARRIER.

SPECIFICATION forming part of Letters Patent No. 379,223, dated March 13, 1888.

Application filed October 14, 1887. Serial No. 252,294. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTUS JEWELL, a citizen of the United States, residing at Dowagiac, in the county of Cass and State of Michigan, have invented a new and useful Improvement in Sheaf-Carriers, of which the following is a specification.

The object of my invention is to furnish an improved sheaf-carrying attachment for self-binding harvesters for receiving the sheaves as they are pushed out thereon by the automatic binding mechanism and for depositing them into bunches where they may be conveniently set up in shocks.

My invention will be first fully described, and then pointed out in the claims.

In the drawings forming a part of this specification, Figure 1 represents a rear perspective view of the binding-table and framing of a harvester with my improved sheaf-carrier applied thereto, this view showing the carrier in position as when a load is being discharged therefrom. Fig. 2 is a top view of the same with the binding-table removed and with a portion of the front slat of the carrier cut away in order to better show the construction. Fig. 3 represents a front perspective view of said carrier, binding-table, and framing, this view and Fig. 2 showing the carrier in position for loading. Fig. 4 is a view of the under side of a portion of the carrier, and Fig. 5 is a rear perspective view showing a portion of said framing and the manner in which the gas-pipe may be attached thereto. Fig. 6 is a front detail view showing the pivot and the outer portion of the gas-pipe and the bearings in which said pivot turns, and Fig. 7 is a rear perspective view of the same, Fig. 6 showing the arm T' extending backward, with its flat upper surface in a horizontal plane, as when the carrier is being loaded, and Fig. 7 showing the arm T' extending outward, with said flat surface in an inclined plane, as when a load of sheaves is being discharged. Fig. 8 is a perspective view more fully showing the manner of securing the spring-arm to the cross-bar. Fig. 9 is a rear perspective view of the keeper, hereinafter referred to; and Fig. 10 shows the foot-lever by which the driver operates the carrier.

Similar letters refer to similar parts throughout the several views.

H is the inclined binding-table; A, the frame-sills of the harvester; h, the horizontal seat-plank, and h' the post at top of which the driver's seat is located, all of which are common in self-binding harvesters.

B is the sheaf-carrier, which is composed of slats or arms secured to a cross-bar, d.

Carrier B may be provided with a brace, x'', to give it strength, and with boards x' and x, to keep the sheaves from jolting off, boards x' and x, as shown in Figs. 1, 2, and 3, being respectively secured to the upper sides of the front and rear slats of the carrier.

The outer ends of the slats may be bent upward at the cross-bar, as shown in Figs. 1 and 3, if necessary, on low binders, in order to give the outer portion of the carrier a greater inclination when the carrier is in the position shown in Fig. 1; but, when preferred, the carrier is made straight, as shown by the dotted lines B', Fig. 3.

D represents the pipe or arm on which the carrier is pivoted, and in the construction shown T represents the pivot on which the carrier turns, and T' an arm which is rigidly attached to the upper end of pivot T, and E and F are the bearings in which said pivot turns. Cross-bar d rests on the flat upper surface of arm T' and is rigidly secured thereto, Fig. 4, and bearing E is rigidly secured to the upper and bearing F to the lower side of pipe D, and z is a slot in bearing F, in the front end of which the lower end of pivot T turns, and is held in said front end by the greater weight of the carrier and sheaves to the rear of said pivot. The lower end of pivot T, where it turns in bearing F, is sufficiently farther forward and toward the harvester than its upper end, so that when the carrier is turned to the discharging position it will have sufficient inclination for the sheaves to slide promptly therefrom, care being taken that said lower end will not be so far forward as to cause the outer side of the carrier to be thrown too high or so far toward the harvester as to cause said outer side to be thrown too low when the carrier is in said discharging position, it being desirable that the lower ends of the slats shall then be in about a horizontal line. The object of said slot z is in order that when the carrier is in the position shown in Fig. 1 the lower end of the carrier may be raised up by passing

over small obstructions and uneven surfaces of the earth, as the lower end of said pivot will then be thrown toward the rear in said slot. This slot is preferably made so that its front and rear ends will be equidistant from the outer frame-sill A in the normal position of the carrier.

Pivot T is located forward of the center of the carrier, and preferably (with my present experience) as far forward as shown in Fig. 4, in order that when the carrier is full of sheaves that part of the load lying on the front part of the carrier and close to the binding-table H will not when the carrier is turned toward the discharging position be pressed against said binding-table, so as to make it difficult for the driver to operate the carrier.

Pipe D is supported from the framing of the harvester, as shown in Figs. 2, 3, 5, and 9, by securing to said framing a rearwardly-inclined transverse beam, C, having a hook, *e*, in which the transverse arm of the pipe rests.

Pipe D, when secured to the framing, as shown, is bent, forming an elbow, and its rear end rests on a support, *b*, secured to a block, *b'*, and *b'* is secured to frame A. The pipe is held near its angle in a keeper, *n*, by pins *g g*, said keeper being rigidly secured to block *d'*, and *d'* secured to the frame A.

Pipe D has a diagonal brace, *i*, Figs. 2 and 5, bridging the angle between its two arms, and said pipe is held from moving outward by a pin, *k*, in its transverse arm bearing against the hook *e*, Figs. 3 and 5. When the pipe is attached to the framing as shown in the drawings, in case the carrier strikes an obstruction, the pipe will be pushed backward out of hook *e*, and the pipe and carrier will fall off of the harvester-frame, thus making them less liable to injury. A washer and pin, *t'*, at the lower end of T will prevent the obstruction from throwing the pivot out of slot *z*, Fig. 4.

It will be seen that pipe D fits into keeper *n* closely enough to keep the pipe from turning, and that hook *e* is sufficiently shallow, so that the obstruction will readily push the pipe out of said hook, and that the back end of pipe D rests on support *b* far enough outward from block *b'*, so that said end will not strike block *b'* till after the outer end of the pipe has been pushed back by the obstruction till pin *k* is clear of hook *e*.

Carrier B is provided with a forwardly-projecting arm, *s'*, Figs. 1, 2, 3, and 4, and with a spring-arm, *a*, Figs. 1, 2, 3, 4, and 8. Spring-arm *a* has a plate, *u'*, secured to its underside, Fig. 4. This plate is notched, forming a catch, *u*, which, when the carrier is being loaded, is hooked onto the stud-pin *c'* on the arm D, as shown in Figs. 2 and 3, thus holding the carrier firmly in position while being loaded. Stud-pin *c'* is further seen by reference to Fig. 6. Spring-arm *a* is preferably made of wood, and is secured rigidly to the under side of cross-bar *d*, Figs. 4 and 8. This is preferably done by bolting the end of said spring to a plate, *f*, the latter being secured to the edge

of the cross-bar *d*. Then by means of a piece of wood or leather, *f'*, Fig. 8, which is shaved to the thickness desired, the catch is readily readjusted in case arm *a* should get sprung by the action of the weather so as to not properly catch hold of lug *c'*. A rod, *v*, fastened to the end of the latch *a*, plays through a staple, *U'*, on the upper side of the arm *s'*, and the other end of rod *v* passes through a hole in arm *a*, Figs. 1, 2, 3, and 4. Suitable pins, *v'*, through rod *v*, on each side of spring-arm *a*, and closely thereto, hold rod *v* in place in said hole. (See Figs. 2 and 3.) A chain, *c*, is attached to an eye, *P*, at front end of rod *v*, Figs. 1, 2, and 3. This chain extends over a guide-pulley, *i'*, on the brace *i*, and is attached to the front end of a rod, *s''*. To the rear end of *s''* a chain, *c''*, is attached, which passes over a guide-pulley, *i''*, at the rear stubble corner of the harvester-frame, and is attached to a rod, *s'''*, and to the other end of *s'''* a chain, *c'''*, is attached, which passes through a guide-pulley, *i'''*, on the rear side of the harvester-frame, and extends upward and attaches to the rear end of a foot-lever, *r*, Figs. 1, 2, 3, and 5. Rod *s''* is held up by pins *m m*, secured on the side of the sill A, Figs. 2 and 5, and rod *s'''* is supported by staples *o o*, secured on the rear sill of the frame, Figs. 1 and 2.

Guide-pulley *i'''* and staples *o o* are secured to the lower rear framing of the harvester, and pins *m m* extend outward from the sill A, to which they are secured.

An arm, *r'*, having an axis at each end, may be secured to the slanting post *h'*, Figs. 1, 2, and 10. Trip-lever *r* is pivoted on the one of these axes which is the most convenient and practicable. A pedal, *y*, is secured to the side of the trip-lever *r* where it will be most convenient, Figs. 2 and 10. The rear end of trip-arm *r* is made heavy enough so that it will rest on the rear end of board *h* while the carrier is being loaded.

When the driver wishes to discharge a load of sheaves, he presses down on the pedal *y*, which moves rod *v* through the staple *u'* till eye *P* strikes said staple. This pushes the catch *u* off of the lug *c'*, and the carrier is then thrown to the position shown in Fig. 1, when the sheaves slide off to the ground. When the load has been discharged, the driver removes his foot from the pedal *y*, and the carrier is at once brought back by gravity to its normal or working position, the catch *u* again catching hold of stud-pin *c'* and holding the carrier for it to be reloaded. A weight, *x'''*, Figs. 2 and 3, may be used, if necessary, to bring the carrier back promptly for reloading, and a weight of a few pounds will bring the carrier back promptly, even though it be made to extend outward from the cross-bar a much less distance than shown in the drawings.

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

1. The combination, with a harvester, of a sheaf-carrying table, B, standing in its receiv-

ing position, with its delivery end next to the harvester and vertically pivoted forward of its center on a supporting-arm, D, the axis on which the carrier is pivoted having its lower end forward of and nearer to the harvester than its upper end, whereby when the carrier is operated to discharge the sheaves its delivery end will swing downward and outward, substantially as set forth.

2. The combination, with a harvester, of a sheaf-carrying table, B, standing in its receiving position, with its delivery end next to the harvester and vertically pivoted forward of its center on a supporting-arm, D, on a pivot having its lower end forward of and nearer to the harvester than its upper end, whereby when the carrier is operated to discharge the sheaves its delivery end will swing downward and outward, and a slot, z, in a bearing, F, whereby when the carrier is in the discharging position its lower or delivery end may be swung up by and upon coming in contact with obstacles on the ground, substantially as and for the purpose set forth.

3. The combination, with a harvester having at its front end a beam, C, projecting toward the stubble and having on its sill next to the stubble a keeper, n, and support b, the beam C having a depending hook, e, at its outer end, of a supporting-arm, D, lying in the

hook e, and having an elbow supported in the keeper n and on the support b, and a sheaf-carrier, B, the carrier standing in position to receive the sheaves, with its delivery end next to the harvester, and being vertically pivoted forward of its center in bearings in the supporting-arm on a pivot having its lower end forward of and nearer the harvester than its upper end, whereby when the carrier is operated to discharge the sheaves its delivery end will swing downward and outward, and means for operating the carrier, substantially as and for the purpose set forth.

4. The combination, with a harvester, of a supporting-arm, D, having a stud-pin, c', on its upper side and near its outer end and bearings E F secured to its outer end, a carrier, B, having a vertical pivot, T, rigidly secured to its under side forward of its center to bear in said bearings, and having a spring-catch, a, to catch onto said stud-pin c', a crank-arm, s', a rod, v, between said spring-catch and crank-arm, and a treadle, r, and a connection between said rod v and the treadle, substantially as set forth.

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Witnesses:

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IRA B. GAGE.