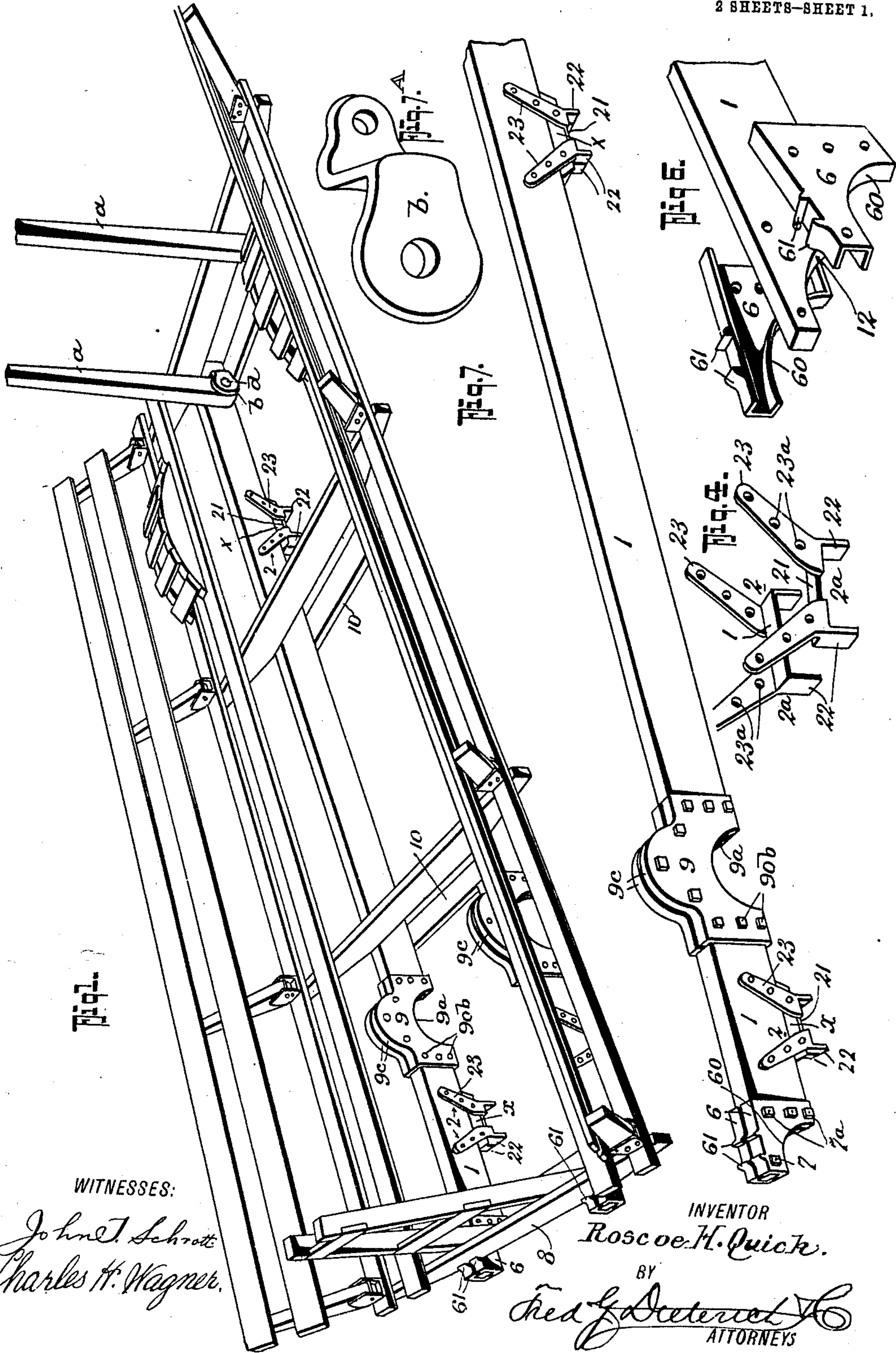


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R. H. QUICK.
HAY RACK SILL.
APPLICATION FILED AUG. 8, 1908.

Patented Sept. 20, 1910.

2 SHEETS-SHEET 1.



WITNESSES:

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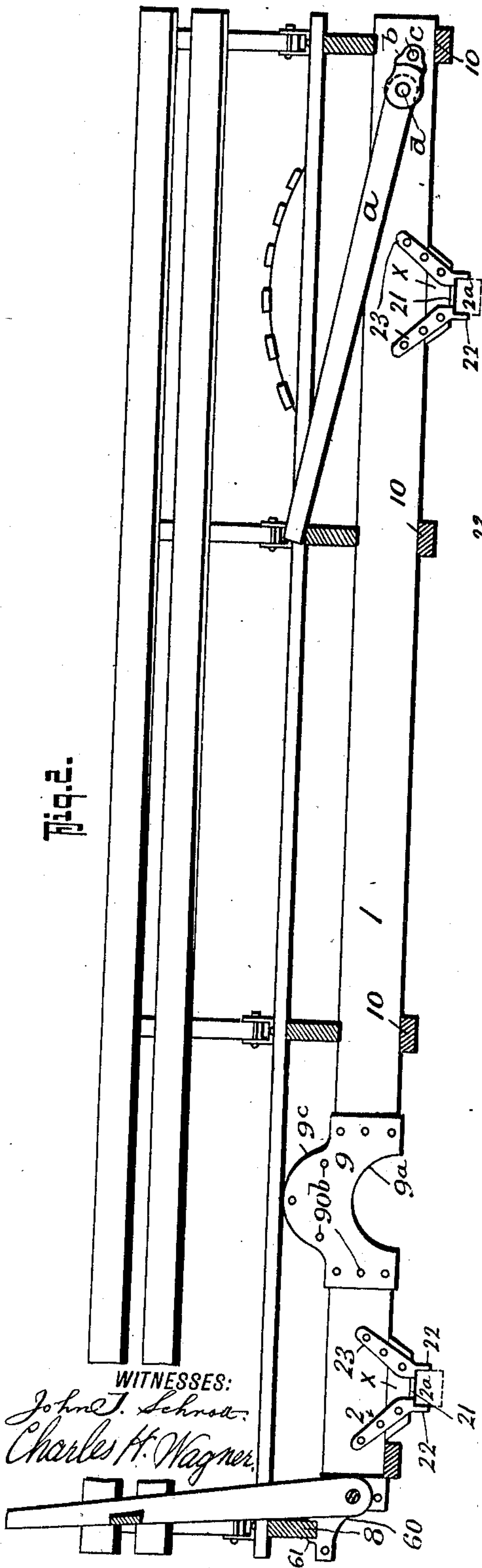
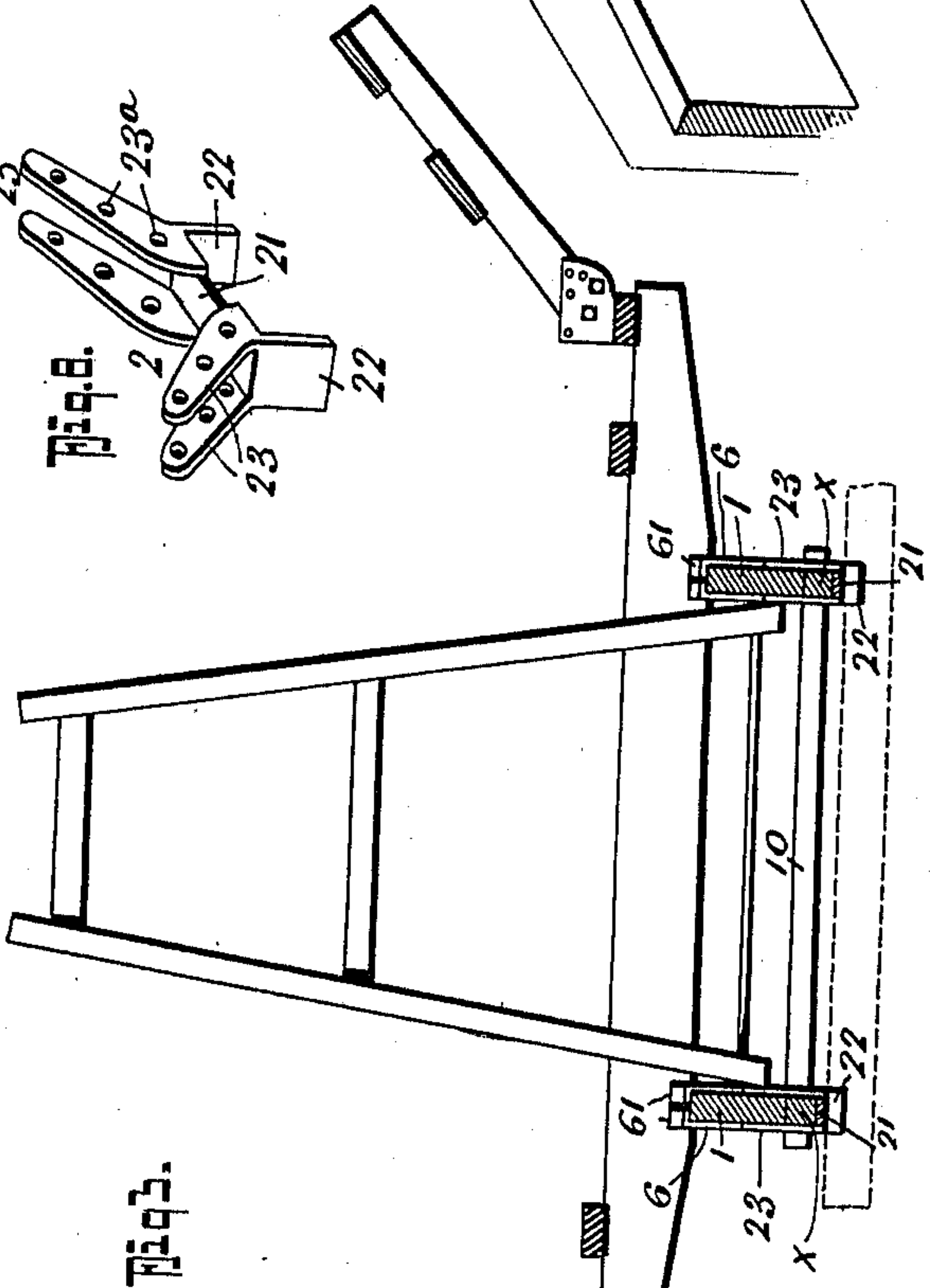
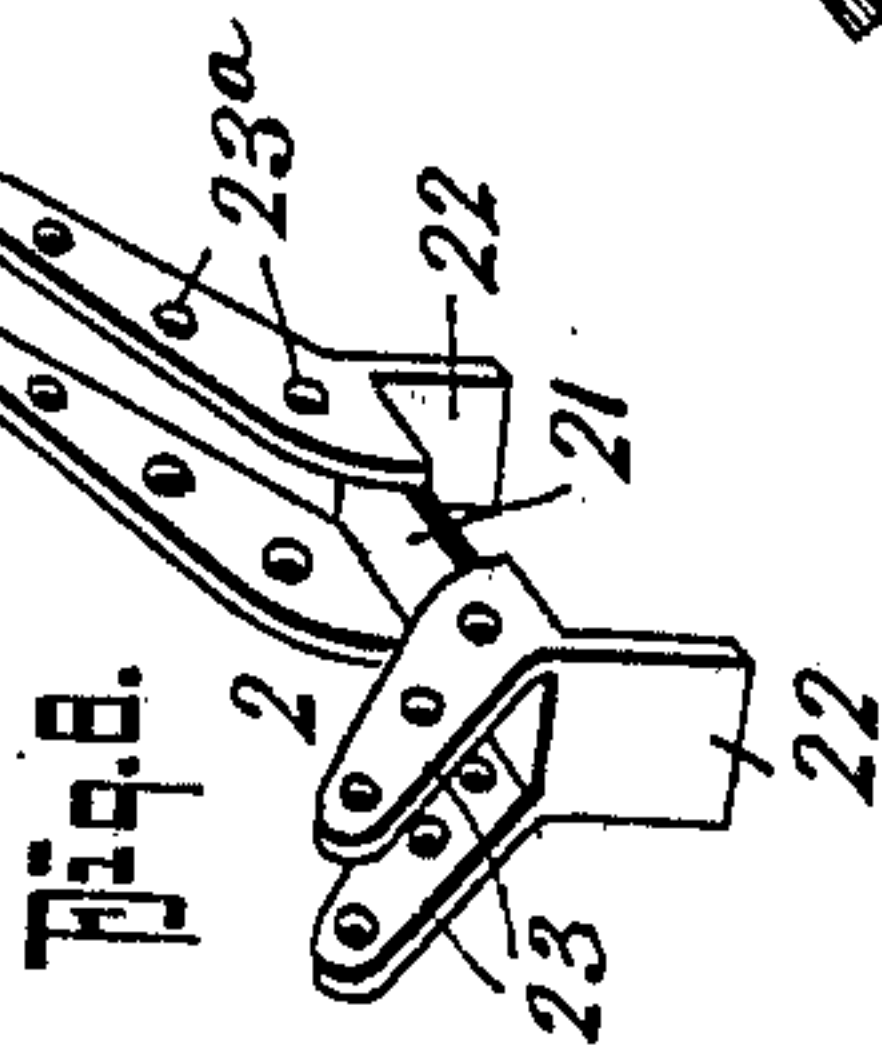
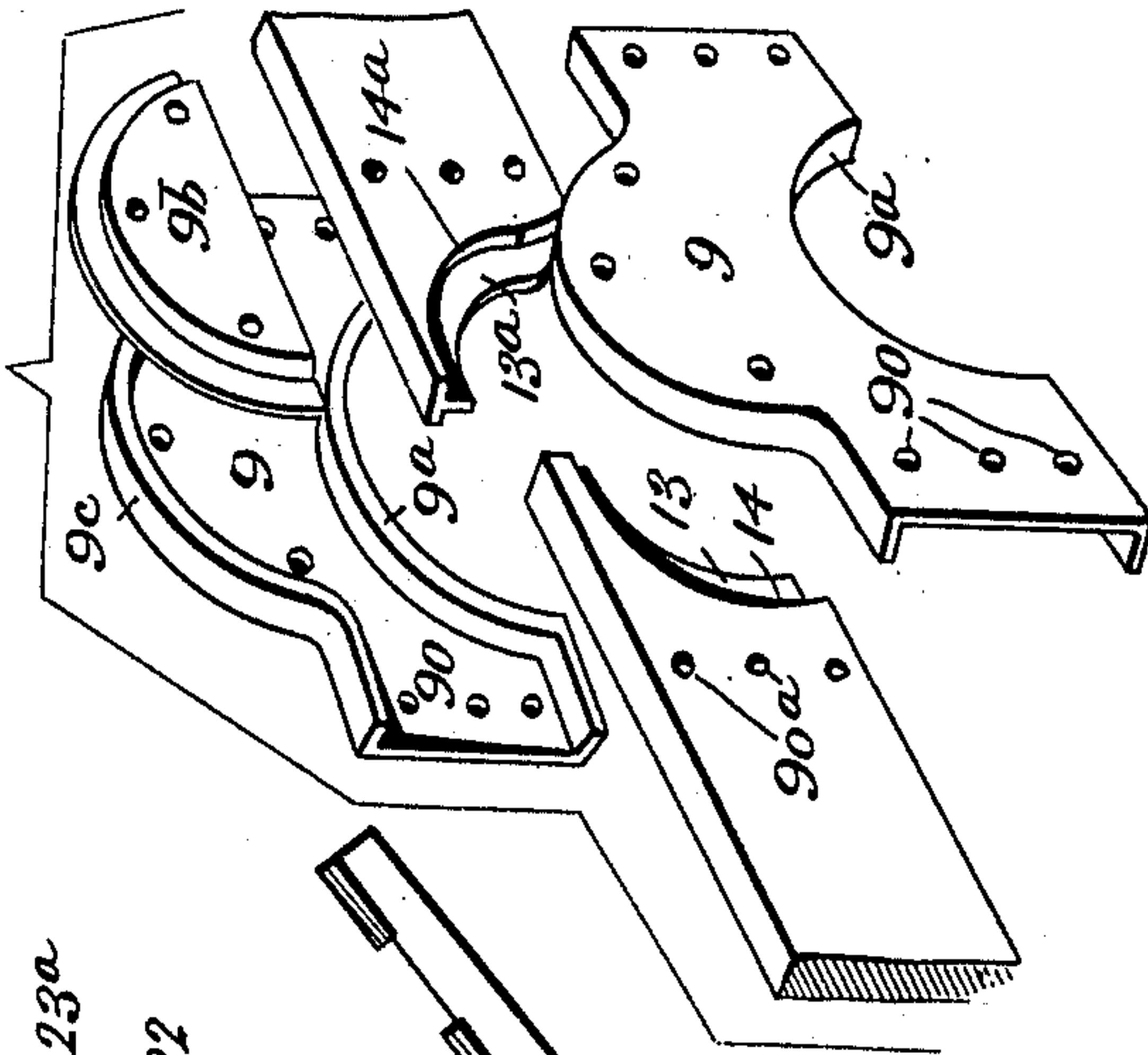


Fig. 5.



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UNITED STATES PATENT OFFICE.

ROSCOE H. QUICK, OF FIATT, ILLINOIS.

HAY-RACK SILL.

970,551.

Specification of Letters Patent. Patented Sept. 20, 1910.

Application filed August 8, 1908. Serial No. 447,634.

To all whom it may concern:

Be it known that I, ROSCOE H. QUICK, residing at Fiatt, in the county of Fulton and State of Illinois, have invented a new and Improved Construction of Hay-Rack Sill, of which the following is a specification.

This invention, which relates generally to means for removably supporting hay and other racks upon farm wagons, more particularly has for its object to provide an improved construction of sills or bed members for removably supporting the rack, and which are so designed that when placed on the wagon gear they are securely held in place thereon without the use of bolts or other positive fastening means.

Another and important object of my present invention is to provide an improved construction of sill having means whereby it can be safely mounted and held upon the wagon bolsters and whereby the desired adjustment of the sill with respect to the wagon gear can be readily provided for raising the rack to the desired height off the wagon gear.

Another object of my invention is to provide a sill having such construction whereby a rack of the full width of the wagon bolsters can be used, the same set farther forward than is usually the case, and at the same time allow the wagon to make a short turn and give the double trees free action without engaging the rack.

With other minor objects in view, my invention consists in the detailed arrangement, peculiar combination of parts, all of which will hereinafter be specifically pointed out in the appended claims and illustrated in the accompanying drawings, in which:—

Figure 1, is a perspective view of my improved construction of sills or rack supporting bed frame, with a hay rack mounted thereon. Fig. 2, is a longitudinal section thereof. Fig. 3, is a cross section thereof, taken through the axle engaging adjustable bracket. Fig. 4, is a perspective view of one of the adjustable brackets, the two parts thereof being shown separated, Fig. 5, is a similar view of one of the combined metal wear and reinforce plates hereinafter referred to. Fig. 6, is a similar view of one of the front wear and rack holding cap plates, and Fig. 7, is a perspective view of one of my complete longitudinal rack hold-

ing sills. Fig. 7^a, is a detail view of the stake bracket hereinafter referred to. Fig. 8, is a detail perspective view of a modified construction of a certain portion of my device.

In the practical application of my invention, I employ two side or longitudinal sills of like construction, and each of which have attached means whereby they can be removably, but positively, sustained in the wagon gear without use of bolts, etc.

The sills 1—1 each consists of a longitudinal beam of suitable length and strength to sustain a hay or other rack and the two sills to make a rigid bed frame are braced by cross members 10 that are fastened at their ends to the under side of the sills 1—1, as clearly shown in the drawings.

At the forward and rear ends each sill is provided with means for removably mounting it on the front and rear bolsters of a wagon, and each of the said means consists of a metal bracket constructed in the manner best shown in Figs. 4 and 7, by reference to which it will be seen that the said bracket designated 2, in the preferred form shown, consists of two plates 2^a, each having a flat bearing face 21, the ends of which merge with pendent flanges 22, and upwardly extended diverging arms 23 that have a series of longitudinally positioned apertures 23^a, the said arms being extended from the outer edge of the bearing face 21 which extends inwardly at right angles from the arms 23, so as to extend under the sill 1.

In fastening the plates 2^a to the sill, one is placed on each side and the two are alined so their bearing faces extend inwardly from the opposite sides of the sill to form, as it were, a solid bearing bracket for seating on the top of the bolster with the pendent flanges lapping over the sides of the bolster in such manner that the sills will be held solid on the bolsters and from endwise movement. By providing the brackets with diverging apertured arms, they can be readily adjusted vertically with respect to the sill 1 to permit the use of filler blocks of various sizes to be used in raising the sills to bring the rack to the desired height on the wagon gear.

While I have shown and described the adjustable brackets as preferably made of two members, they may be made of a single piece of metal, as shown in Fig. 8, but the other form is deemed more effective, since

the two members brace the sill from opposite sides and make a more durable and stable construction.

At the front end, each sill is cut out on the under side as at 12 the said cut out portion being of segmental form although it may be cut square or other shape, so the said sill end and the rack supported by the sills can be set farther forward on the wagon gear than would otherwise be possible, and still allow the wagon doubletrees free action without engaging the sill or the rack. For protecting the said cut out ends guard plates 6—6 shaped for fitting over the cut out ends of the sills are provided and these plates have inturned flanges 60—60 on the upper, lower and front edges that extend over the sill ends to which they are clamped by the bolt and nuts 7—7^a and they also have vertical transverse flanges 61—61 whereby to provide a socket bearing for receiving the front transverse member 8 of the rack.

To provide for a short turn of the vehicle wheel, I find it necessary to divide the sill and provide a pair of union plates, which, while serving the purpose of holding the two divided ends of the sill rigidly, also act as wear plates, guarding against marring the sill by the scraping of the wheel in turning a curve. Where the sill divisions occur semi-circular cuts are made forming flanges 13, 13^a which, when assembled, fit around the corresponding flanges 9^a of the plates 9. 9^b designates a supplemental filler segment that aids in forming a solid union of the several parts before mentioned, it having portions that fit in the compartment formed by the flange 9^c on the plate 9, similar in construction to the flange 9^a, see Fig. 5. Apertures 90 and 90^a are provided for in the plates 9 and the sill members for the passage of the securing bolts 90^b. The filler 9^b has a rib on its upper or curved edge, as shown best in Fig. 5 of the drawings, that is formed by cutting away portions of the filler.

Building up the top of the sills at the cut out portion in the manner shown and described, makes the sills strong and rigid so as to form a solid bearing for the rack and furthermore, constructing the complete sill as stated, allows the rack to be built the full width of the wagon bolsters, both front and rear and adds greatly to the strength and convenience.

If desired, but a single plate may be used for the front and central cut out portions of the sill, but I prefer to use two opposing plates since the two plates provide for a more solid bracing of the sill at the places stated, and further, securing the clamps in this way gives the strongest possible construction of sill, since they take the strain off the holes in the wooden sill, and the sills are completely ironed at the points where

the wear is, the irons taking the wear off the wooden parts. To the more securely hold the rear stake members *a—a* onto the sills and yet allow them the necessary free action, metal supports are provided therefor, each of which consists of an auger bracket *b*, one portion of which is bolted directly to the sill by the clamp bolt *c*, and the other is braced on the sill by the pivot bolt *d*, on which the lower end of the stakes *a—a* are fulcrumed, as clearly shown in Figs. 1, 2 and 7^a.

While I have described the plates 9 as wear plates, it will be readily apparent that when a perfect adjustment of the side sills is effected, there is practically no wear on these plates since the wheel turns under the said plates without engaging them.

Having thus described my invention what I claim is:

1. In a wagon rack bed frame, a longitudinal side sill, a pendent bracket adjustably mounted on the sill, and a filler block for engaging the bottom edge of the sill, said bracket comprising two opposing sections, each consisting of a portion having apertures and an inwardly extended flange, the flanges of the two sections forming the seat for the filler block, and having an integral pendent flange at each end for straddling and seating on a wagon bolster.

2. A side sill for wagons comprising a sill beam formed of a plurality of abutting sections and cut out on the under side at the abutting ends of said sections, flanged plates fitted over the abutting ends of said sections, said flanged plates including upwardly extended flanged portions to form a chamber, and a filler block held in said chamber against the top of said beam ends, and bolts passing through said flanged plates and said beam ends.

3. A side sill for wagons, comprising a sill beam formed of a plurality of abutting sections, and cut out on the under side at the abutting ends of said sections, flanged plates that inclose the abutting ends of said sections, said flanged plates including upwardly extended flanged portions to form a chamber, a filler block held in said chamber against the top of said beam ends, bolts passing through said flanged plates and said beam ends, and other bolts passed through said flanged plates and said filler block.

4. A side sill having a cut out portion on its under side at one end, a pair of wear plates having flanges for inclosing said cut out end, said flanges of said wear plates conforming to the contour of said sill end, bolts passing through said wear plates and said sill end, each of said wear plates having upwardly projected spaced members to form a transverse groove, substantially as shown and described.

5. A side sill comprising a main portion

and an abutting front portion, the meeting ends of the two portions being cut out on the under side and formed with recesses on the opposite sides, wear plates that fit over the
5 opposite sides of said meeting ends at the cut out portions, said plates having flanges for seating in said recesses, a filler that fits over the top of the meeting ends of the sill portions, said filler having a rib on its upper
10 edge, said wear plates having upwardly extended portions and having flanges on said upwardly extended portions for embracing said filler, said filler rib being held between
15 plates, the filler and the sill portions together.

6. A side sill comprising a main portion

and an abutting front portion, the meeting ends of the two portions being cut out on the under side and formed with recesses on
20 the opposite sides, wear plates that fit over the opposite sides of said meeting ends at the cut out portions, said plates having flanges for seating in said recesses, a filler
25 that fits over the top of the meeting ends of the sill portions, said wear plates having upwardly extended portions and having flanges to embrace said filler, and means for securing the plates, the filler and the sill portions together.

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Witnesses:

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A. E. MURPHY.