

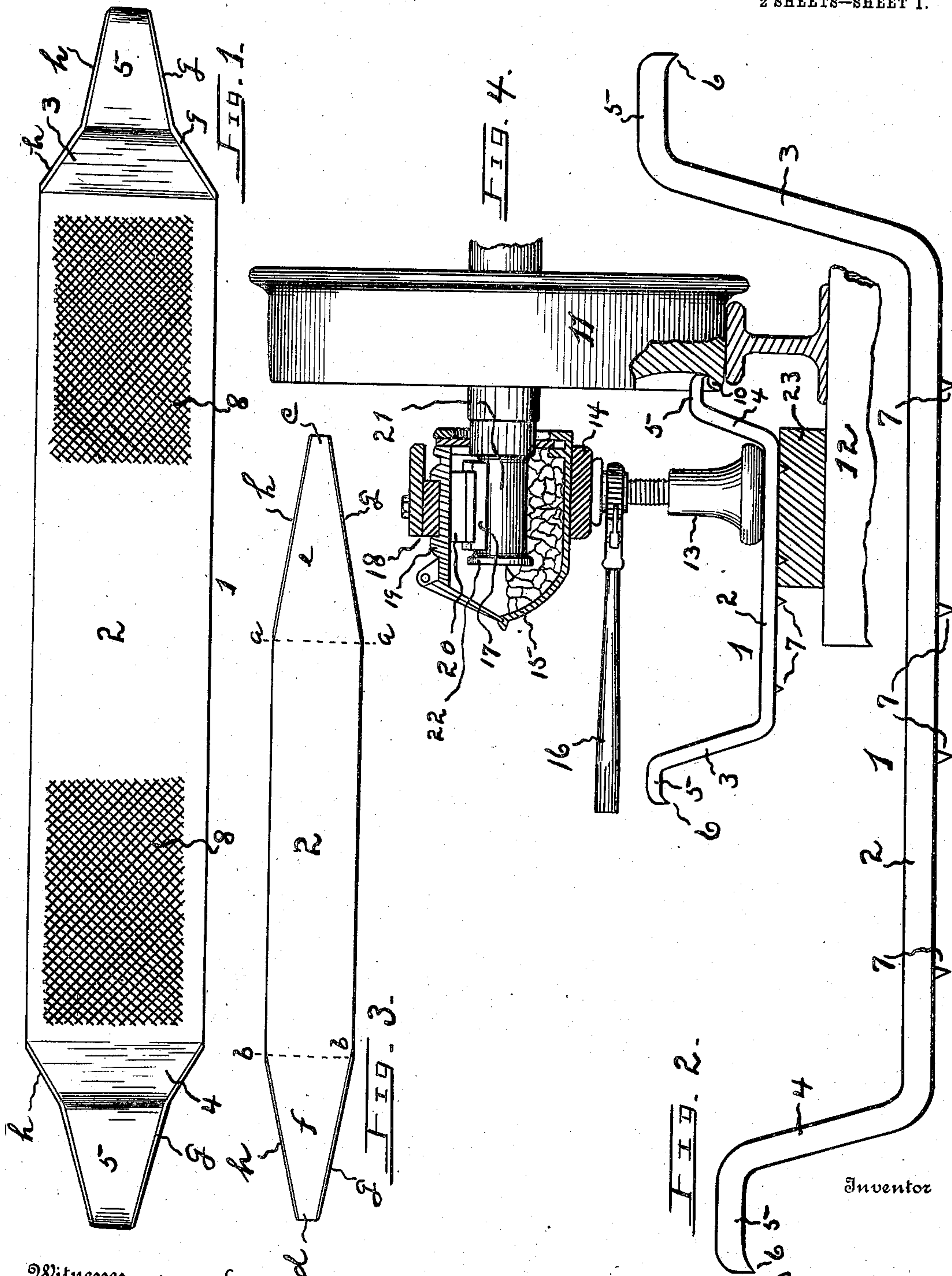
No. 867,594.

PATENTED OCT. 8, 1907.

M. PAULSON.
WHEEL CLAMP OR ANCHOR.

APPLICATION FILED JUNE 18, 1907.

2 SHEETS—SHEET 1.



Witnesses

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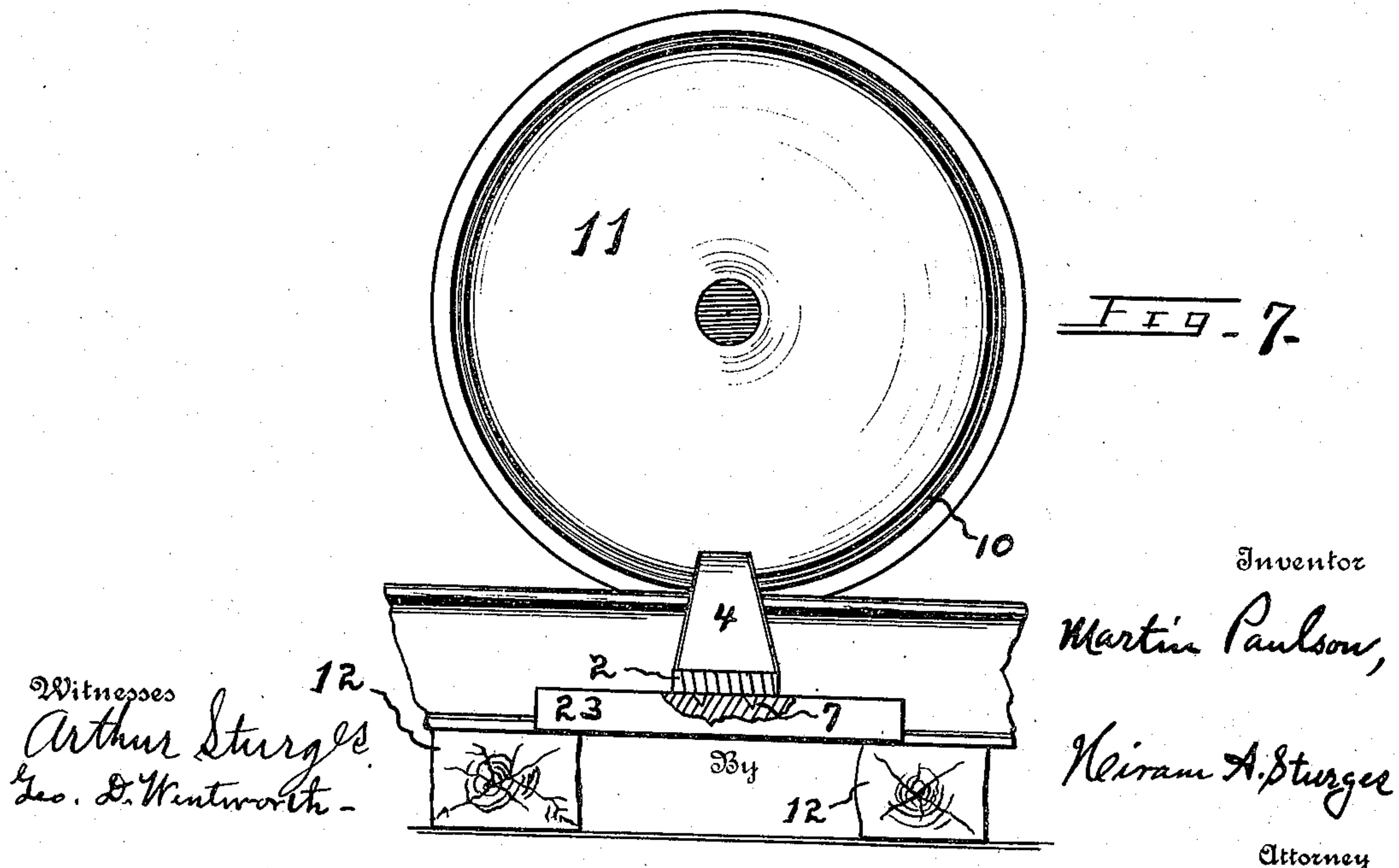
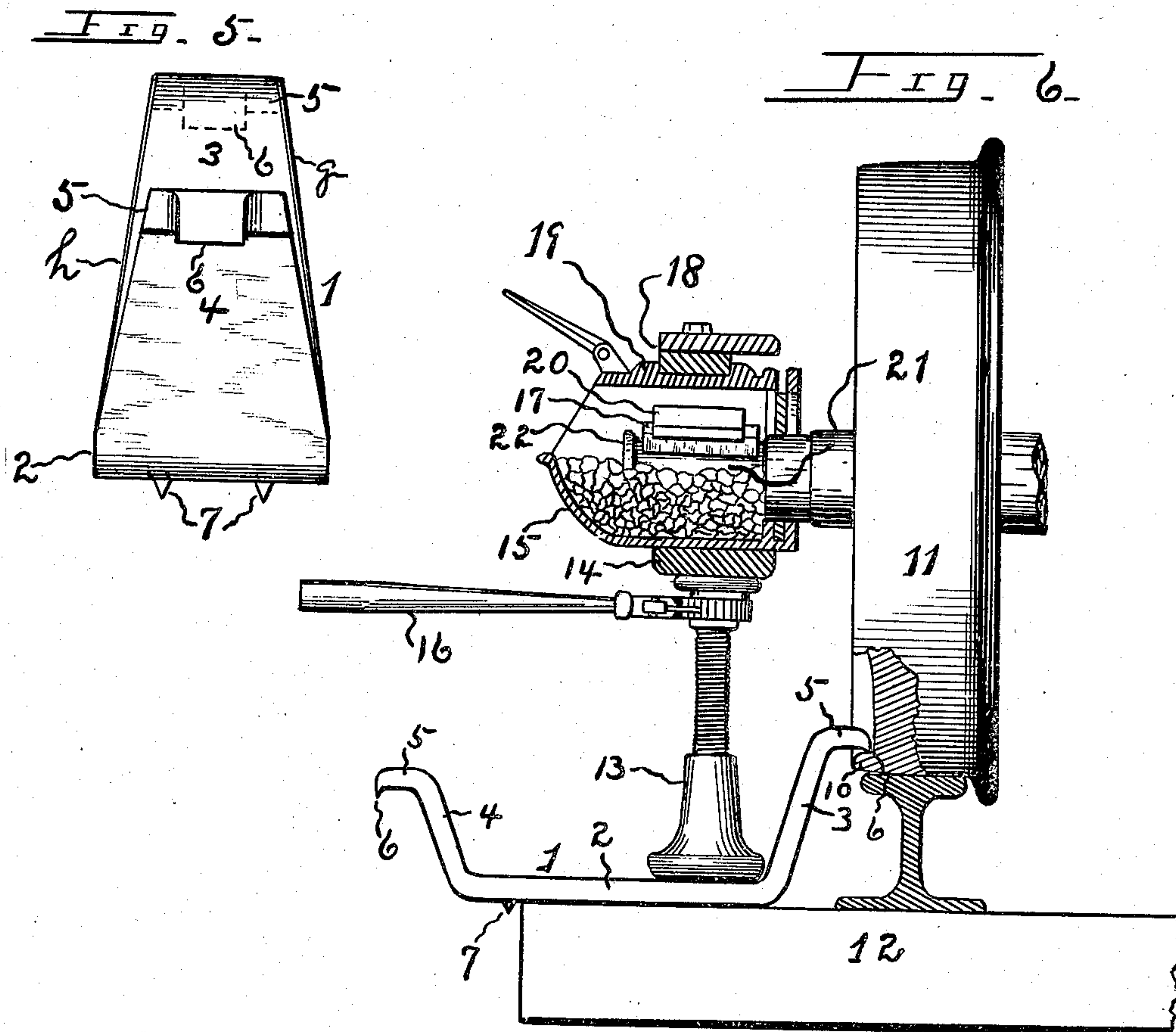
Inventor

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2 SHEETS—SHEET 2.



UNITED STATES PATENT OFFICE.

MARTIN PAULSON, OF OMAHA, NEBRASKA, ASSIGNOR TO JACOB L. KALEY AND ELZA S. STOTTS, BOTH OF OMAHA, NEBRASKA.

WHEEL CLAMP OR ANCHOR.

No. 867,594.

Specification of Letters Patent.

Patented Oct. 8, 1907.

Application filed June 18, 1907. Serial No. 379,562.

To all whom it may concern:

Be it known that MARTIN PAULSON, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, has invented certain new and useful Improvements in Wheel Clamps or Anchors, of which the following is a specification.

This invention relates to an improved wheel clamp or anchor for use particularly upon wheels of railway cars, and has reference to the construction of an angularly formed metal plate which, in connection with a lifting jack and a horizontally-disposed sustaining bar, may be used for the purpose of anchoring a wheel to a railway track when raising the bearings of a car from the journal. The device is used for this purpose when, for any reason, the journal becomes overheated from friction, or when, according to railway terms, the journal box becomes "a hot box".

The invention has for its object the presentation of a bar having a flat body provided with upwardly-extending arms with holding-heads formed at their ends, one of the arms being of a length so that its holding-head will engage the annular rim adjacent the tread of the wheel when the body of the bar rests upon a railway tie, the shorter arm being for use in connection with a sustaining-plate when the wheel is not directly above the tie. The invention also includes the form of an anchor found to be highly efficient for the purposes designed, and which conduces to economy in use of material. With these and other objects in view the invention presents a new construction and arrangement of parts fully described herein, pointed out by the claims and illustrated in the drawings, wherein,—

Figure 1 is a plan view of a wheel clamp or anchor embodying my invention. Fig. 2 is a vertical, side view of the invention. Fig. 3 is a plan view, somewhat reduced, showing the form of a bar before being bent to form the wheel anchor. Fig. 4 is a vertical side view of the invention, showing the short arm in engagement with the annular rim adjacent the tread of a car wheel, the journal box, sustaining-plate and a part of the wheel and bearings being in section. Fig. 5 is an end view of the wheel anchor, the short arm being presented at the front. Fig. 6 is a view somewhat similar to that of Fig. 4, showing, however, the use of the long arm of the anchor, and showing the journal box and bearings thereon raised above the journal, so that the saddle and brass plate may be removed. Fig. 7 is a side view of a fragment of railway track, a car wheel thereon whose center is disposed vertically between the railway ties, and showing the use of my invention in connection with a sustaining plate, the long arm of the anchor being removed to obtain a view of other parts.

Referring now to the drawings for a more particular

description, numeral 1 indicates a wheel anchor, being a flat metal bar having a rectangular base 2, its ends formed outwardly convergent and bent upwardly and inclined outwardly from base 2 to form a long arm 3 and a short arm 4, said arms near their terminals being extended outwardly from and substantially parallel with the base to form holding-heads 5, these heads being downwardly and transversely convergent at their extremities to form contact-blades 6. Base 2 upon its lower surface is provided with holding-lugs 7, and upon its upper surface adjacent arms 3 and 4 are formed rugose areas 8.

By referring to Fig. 3 it will be seen that the edges of the end-portions of plate or bar 2 are tapered from points *a a* and *b b* to the respective ends *c* and *d* of the plate, and the tapered part *e* used for the long arm 3 is longer than the tapered part *f* used in forming the short arm, and this is the preferred construction, as in manufacturing the device it effects a large saving in the cost and weight of material; arm 3 as well as arm 4 is regularly divergent from the base to the terminals *c* and *d*, respectively; the tapered parts *e* and *f* are preferably formed with facets *g* and *h* which incline inwardly from their outer surface, this being an advantage to decrease weight and cost of material.

In operation, when the car wheel 9 having a "hot box" has its vertical center above a railway tie, the long arm 3 of the anchor may be used, as shown in Fig. 6, the length of said arm being sufficient to permit its contact-blade to engage the annular rim 10 adjacent the tread of wheel 11 at a time when base 2 is resting upon tie 12; a lifting jack 13 is then placed between base 2 and strap 14 upon which the journal box 15 rests, and by means of lever 16 upon the jack, the journal box may be raised.

The functions performed by the device will be readily appreciated by those conversant with railroad work, for when a "hot box" is discovered, as frequently happens, the train must be brought to a stand-still and brass plate 17 removed. The weight of the car is sustained by straps 18 which rest upon axle-guard 19; the weight, by this contact is transferred to the slide or saddle 20; saddle 20 rests upon brass plate 17. The journal 21 has a terminal flange 22 which prevents endwise movement of brass plate 17, and therefore, to remove plate 17 the weight of the car must be overcome and these parts raised upward while the wheel is detained or anchored to the track, and this is accomplished in the manner already described, so that saddle 20 and brass plate 17 may be removed.

If the vertical center of the wheel is not disposed above a railway tie the short arm 4 of the wheel anchor is then used, as shown in Figs. 4 and 7, at which time

sustaining-plate 23 is employed. Arm 4 has a length when base 2 is seated upon the sustaining-plate, to cause its contact-blade to engage rim 10 of the wheel, and the operation thereafter is the same as heretofore described.

The operation is more satisfactory in many respects when the wheel and journal box are directly above a railway tie so that the anchor may rest upon the tie, but by use of the short arm, in connection with plate 23, the operation is certain regardless of the position of the journal box; and the employment of the device, in connection with the parts described, furnish a means for removing brass plate 17 with a great saving of time. The considerable weight of the car causes lugs 7 to engage the tie or support upon which the anchor rests, and this feature is important since the tie is often covered with ice or accumulated soil.

It will be understood that rim 10 is found upon the outer surface of all car wheels, this rim being adjacent the tread of the wheel, and contact-blade 6 in connection with the use of lugs 7 furnish a reliable means for detaining the wheel when raising the journal box. The rugose surfaces 8 furnish a reliable seating for the base of the lifting jack.

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

1. A wheel clamp having a rectangular base with end-portions extending outwardly and above the plane of said base to form divergent arms, said divergent arms having

end-portions bent to extend outwardly and substantially parallel with said rectangular base to form holding-heads.

2. A wheel clamp or anchor having a rectangular base with end-portions extending outwardly and above the plane of said base to form divergent arms, said divergent arms having end-portions bent to extend outwardly and substantially parallel with said rectangular base to form holding-heads; one of said divergent arms having a length less than the other of said divergent arms.

3. A wheel clamp or anchor having a rectangularly formed base with end-portions extending above the plane of the base and outwardly therefrom to form divergent arms, said divergent arms having end-portions bent to extend outwardly and substantially parallel with said rectangular base to form holding-heads; said holding-heads provided with downwardly-extending terminals to form contact-blades transversely with reference to said rectangularly formed base.

4. A wheel clamp or anchor having a rectangular base with end-portions extending outwardly and above the plane of the base to form divergent arms, said divergent arms having end-portions bent to extend outwardly and substantially parallel with said rectangular base to form holding-heads, one of said divergent arms having a length less than the other of said divergent arms; said holding-heads provided with downwardly-extending terminals to form contact-blades transversely with reference to said rectangularly-formed base.

In testimony whereof he has affixed his signature in presence of two witnesses.

MARTIN PAULSON.

Witnesses:

HIRAM A. STURGES,
ARTHUR STURGES.