No. 805,731. PATENTED NOV. 28, 1905.

A. A. JAMES.

APPLIANCE FOR CHECKING HORSES.

APPLICATION FILED DEC. 30, 1904.

3 SHEETS—SHEET 1.

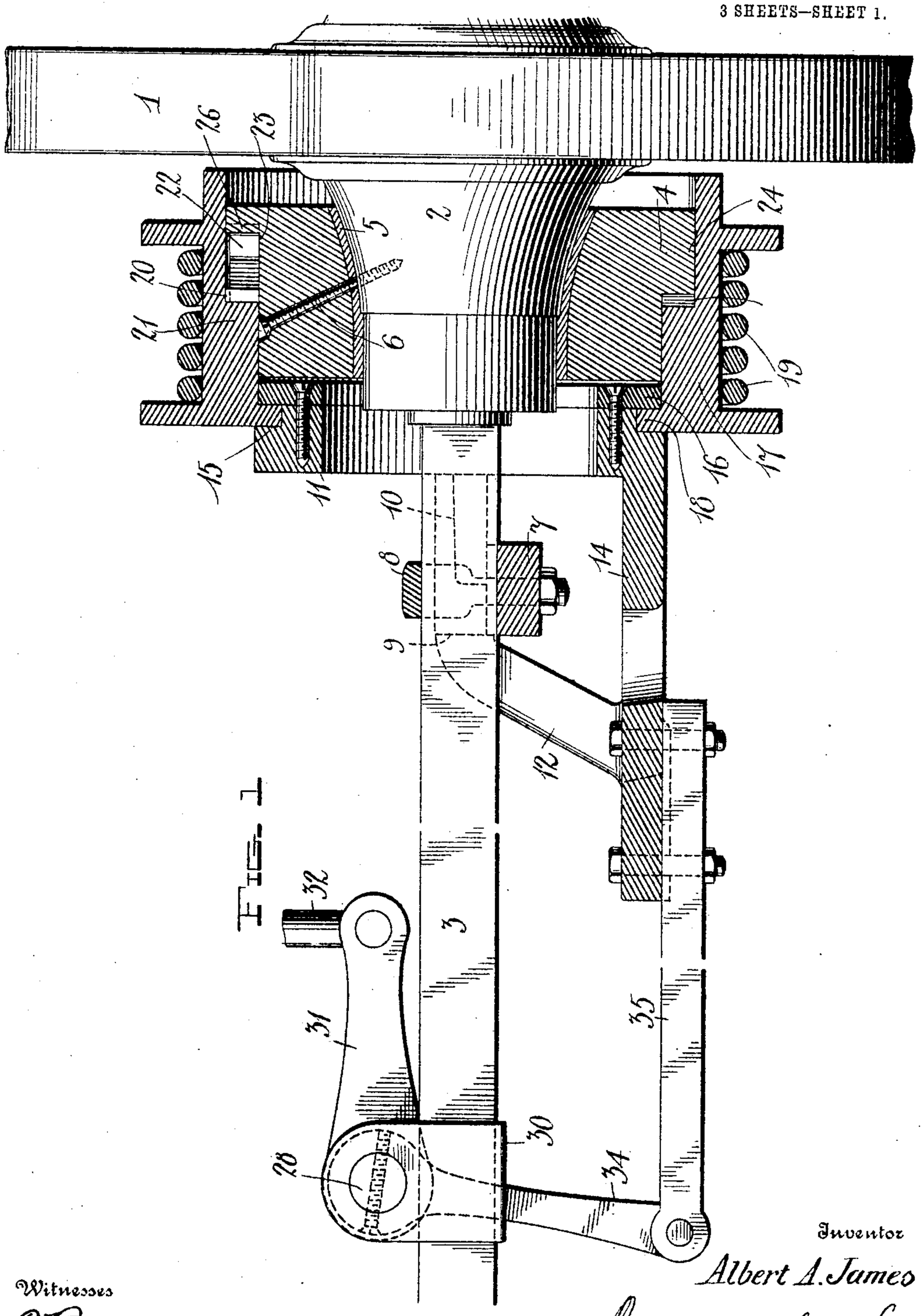

FIG. 1

Witnesses

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3 SHEETS—SHEET 2.

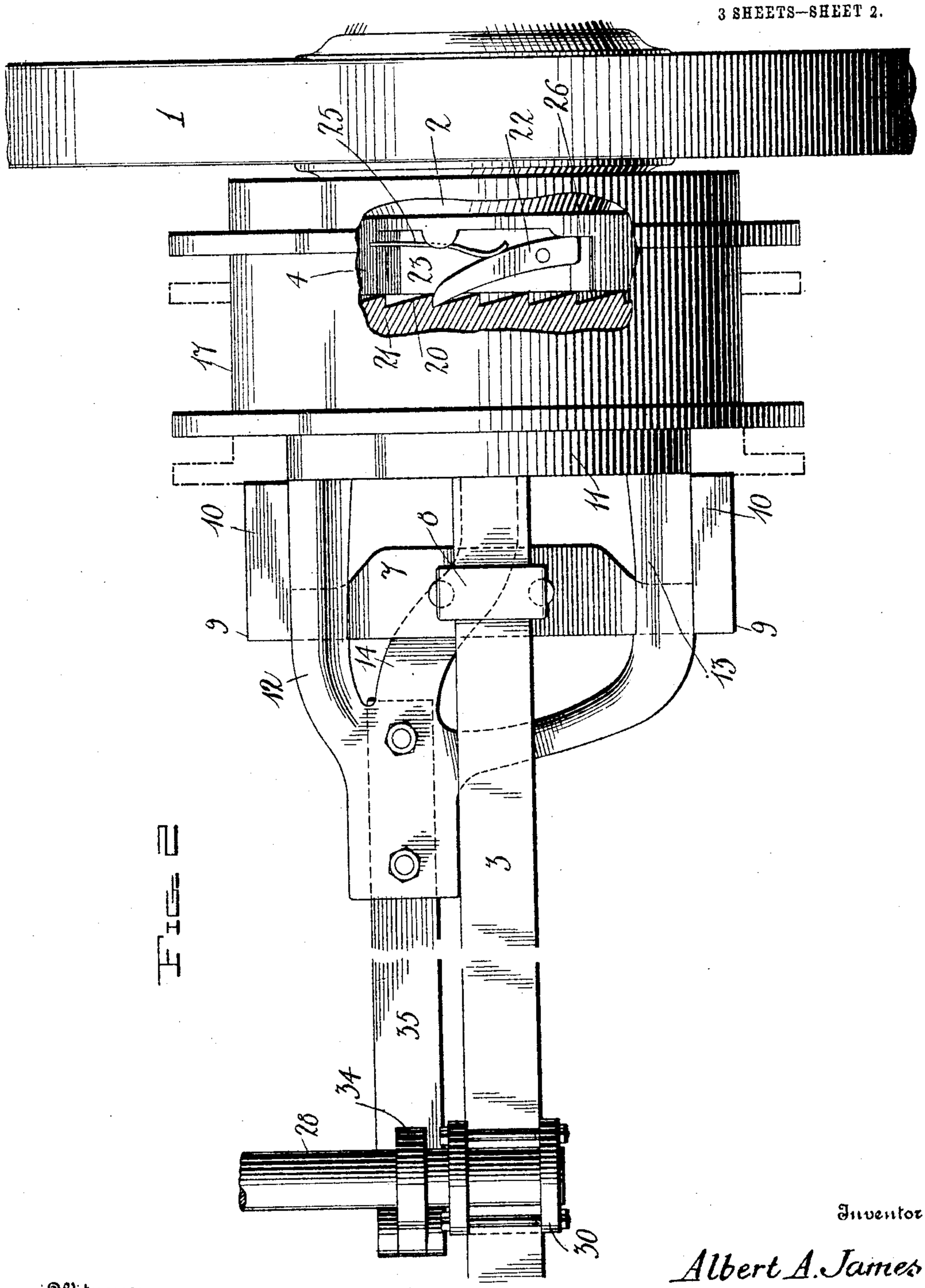

FIG 2

Witnesses

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3 SHEETS—SHEET 3.

FIG. 3.

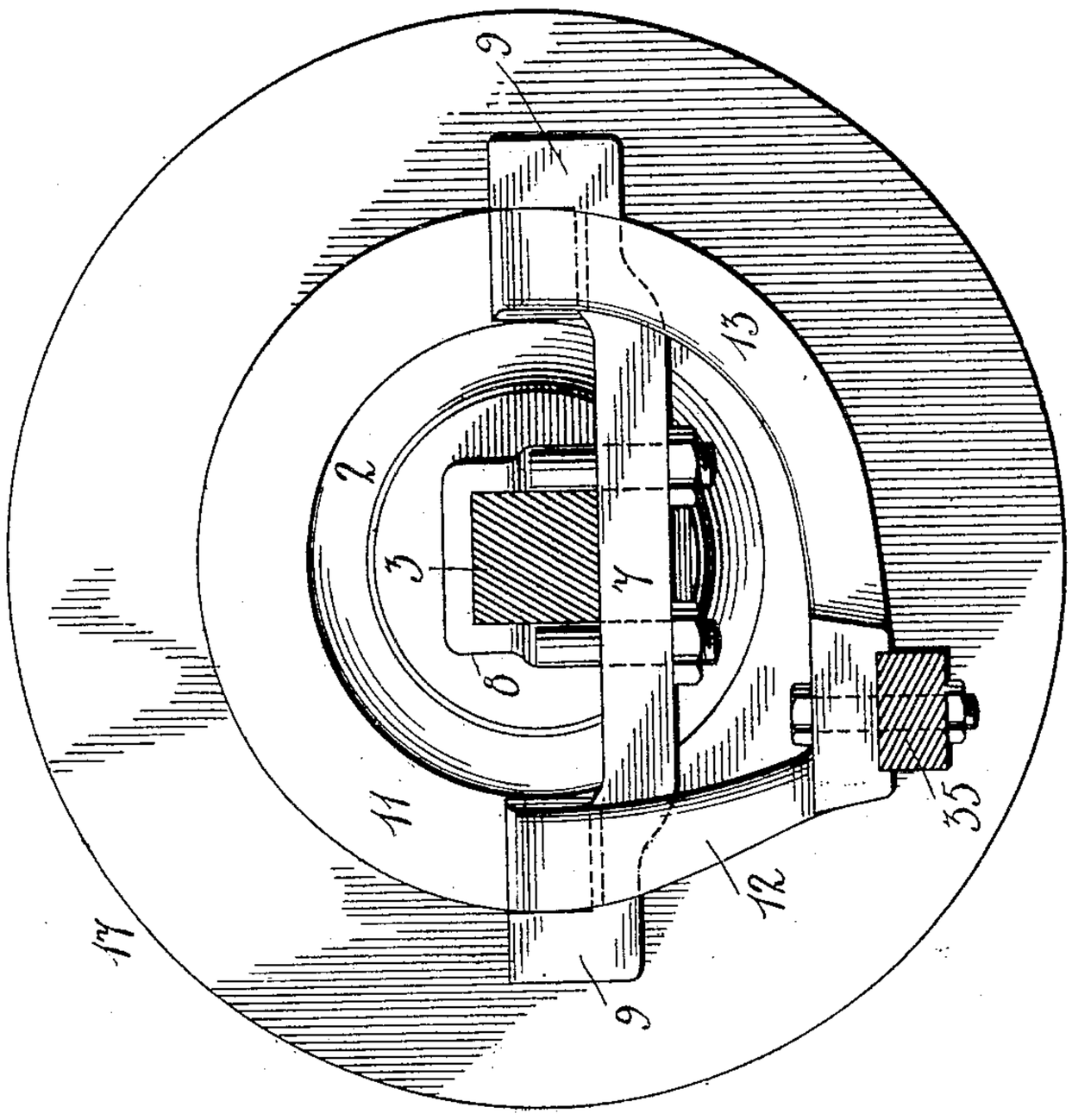
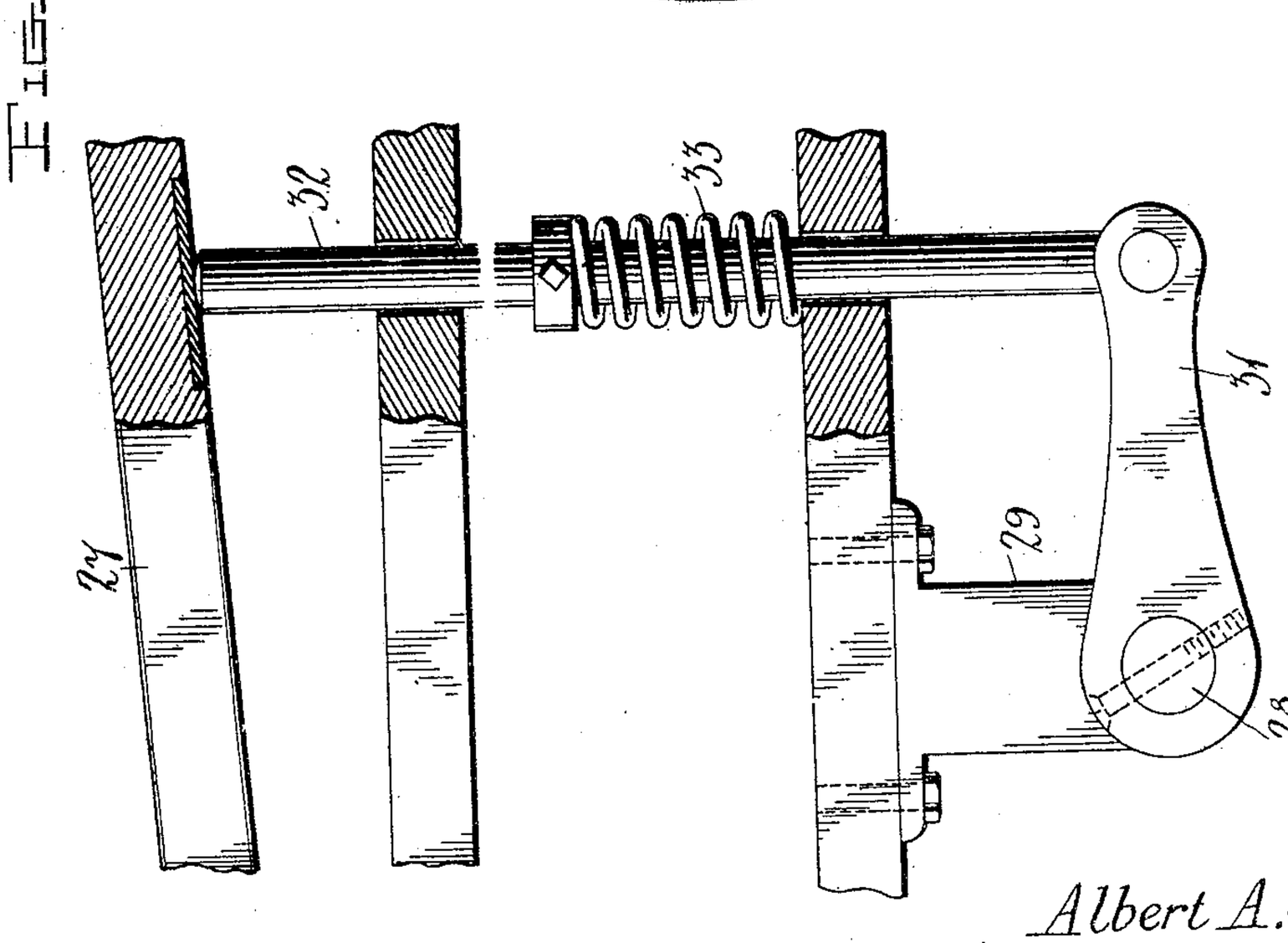


FIG. 4.



Witnesses

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APPLIANCE FOR CHECKING HORSES.

No. 805,731. Specification of Letters Patent. Patented Nov. 28, 1905.

Application filed December 30, 1904. Serial No. 239,009.

To all whom it may concern:

Be it known that I, ALBERT A. JAMES, a citizen of the United States, residing at Oklahoma, in the county of Oklahoma and Territory of Oklahoma, have invented new and useful Improvements in Appliances for Checking Horses, of which the following is a specification.

This invention relates to improvements in devices for checking horses.

The object of the invention is to provide an appliance of this character which is adapted for application to existing vehicles without modification of the latter, and the improved device possesses the additional advantages of simplicity and cheapness of construction and durability.

Other advantages are set forth in the following description of the construction and operation of the improved device, and in connection with such description reference is to be had to the accompanying drawings, illustrating the device in its preferred form of embodiment, it being understood that various modifications may be made therein without exceeding the scope of the concluding claims.

In the drawings, Figure 1 is a side elevation, partly in section, of a checking device embodying my invention. Fig. 2 is a plan view of the same, partly broken away. Fig. 3 is an end view of the same. Fig. 4 is a detailed view of the movable seat and its connections.

Referring to the drawings by numerals, 1 designates a vehicle-wheel, and 2 is the wheel-hub. This wheel, together with the axle 3, may be of the usual construction, and in this connection it is pointed out that the parts of the improved checking device are applied to the vehicle without the necessity of changing the vehicle in any particular. Aside from this advantage the device by reason of its peculiar structure may be applied to a vehicle without the exercise of special skill and with the minimum of time and labor. Encircling the hub 2 is a sleeve 4. Said sleeve is fixed to the hub to rotate with the wheel, preferably in the following manner: The opening of the sleeve is made somewhat larger than the diameter of the hub, and after the sleeve is properly positioned on the hub the annular space is filled with Babbitt metal 5 or its equivalent, and I prefer also to strengthen the connection by screws 6, which are driven through the sleeve and enter the hub.

7 is a bracket secured on the axle 3 by a clip 8. The bracket is fastened centrally on the under side of the axle and is provided with upturned ends 9 9, said ends having forward extensions 10.

11 is a collar which encircles the axle and the inner end of the hub. Extending from the collar are three arms 12, 13, and 14, which join together at one side of the axle, as shown more clearly in Figs. 2 and 3. The upper arms 12 and 13 each extend for a portion of their length in parallelism and are slidably supported on the ends 9 9 of the bracket. The collar is provided with an annular groove 15, one wall of which is formed by a ring 16, formed separately from the collar and secured thereto by screws or the like, as shown.

The checking of the animal or animals hitched to the vehicle is accomplished by a drum arranged to be clutched to the wheel and having wound thereon a cable or strap which is attached to the reins in the usual or any preferred manner. The drum 17 encircles the sleeve and collar and is connected with the latter to move therewith by a flange 18, engaging the collar-groove. By this connection the drum is free to rotate, but is moved laterally with the movement of the collar. The cable 19 is wound upon the drum between flanges and leads to the front of the vehicle where connection is made with the reins in any suitable manner. The sleeve 4 is of stepped form and the opening of the drum conforms closely to the form of the sleeve, thereby preventing rattling. The drum carries an annular series of ratchet-teeth 20, which are formed in the face of the enlargement 21 and which are engaged by a pawl 22, pivoted in a recess 23 in the enlargement 24 of the sleeve. The pawl is pressed outwardly in the direction of the teeth by a spring 25, and said outward movement is limited by the engagement of the inner end of the pawl with a shoulder 26 on the wall of the recess.

In the normal position of the parts the drum occupies a position to the left, in which position the pawl and teeth are out of en-

gagement, and the wheel and sleeve are free to revolve without communicating movement to the drum. When it is desired to check the animal, the collar is moved to the right and carries with it the drum, and in such movement the teeth are brought into the path of the pawl and the drum is rotated by such engagement in the forward movement of the vehicle. If the vehicle should move rearwardly by the backing of the animal, no movement will be imparted to the drum, as the pawl will ride over the teeth, as will be understood.

Movement of the collar and drum to effect the rotation of the latter may be accomplished in a number of ways; but I prefer that the operation of the device be effected independent of manual act. To this end I provide a driver's seat 27, mounted to have a vertical movement, and which is normally elevated. Extending lengthwise of the vehicle is a rock-shaft 28, supported at its forward end in a bracket 29 and at its rearward end in a bracket 30, which latter is fastened to the rear axle by a clip or the like. At its forward end the shaft is provided with a crank-arm 31, to the outer end of which is pivoted a vertical rod 32, suitably guided and having its upper end in engagement with the seat. The rod and seat are normally elevated by the action of a coil-spring 33, coiled around the rod and interposed between a set-collar and a part of the vehicle-frame. On the other end of the rock-shaft is a crank-arm 34, and 35 is a rod connecting said crank-arm with the joined ends of the arms 12, 13, and 14. While the seat is occupied by the driver it is in depressed position, and through the medium of the rock-shaft and connections the drum is uncoupled from the wheel. When the seat is relieved from the weight of the driver, the parts are moved by the action of the spring to effect the coupling of the drum and wheel, whereupon any forward movement of the animal is arrested by a pull on the reins obtained by the winding of the cable on the drum. When the drum and wheel are uncoupled, the drum is free to revolve, and a pull on the cable will effect its unwinding.

To prevent rattling of the parts when the drum is uncoupled, the bracket 7 is adjusted along the axle to bring the outer ends of the guide extensions 10 in position to afford stops to limit the uncoupling movement of the drum. This range of movement of the drum is less than the range of movement of the seat, so that the drum in its uncoupled position is firmly held against the stops by pressure obtained from the weight of the driver and vibration of the drum and collar and connections is effectually prevented.

It will be observed that the parts of the improved device are very few in number and are assembled in a manner which effectually prevents rattling and renders them practically dust-proof. The simplicity of construction employed enables the devices to be inexpensively produced, and there is no liability to disorder. Hence the device is at all times reliable.

I claim as my invention—

1. In an appliance for checking horses the combination with a wheel-hub and wheel-axle and with a seat supported to be moved vertically, of a sleeve on said hub, a collar slidable on said axle, a rotatable drum connected to said collar to be moved laterally thereby, arms extending from said collar and connected together at one side of said axle, a rock-shaft, a crank-arm on the rock-shaft, a vertical rod connected to the crank-arm and arranged in the path of said seat, a second crank-arm on said shaft and a rod connecting the last-named crank-arm and the joined arms of said collar.

2. In an appliance for checking horses the combination with a wheel-hub and wheel-axle, of a sleeve fixed to said hub to rotate therewith and having an enlargement provided with a recess, a spring-pressed pawl in said recess projecting beyond the face of said enlargement, a shoulder in the recess for limiting the outward movement of said pawl, a drum encircling and conforming to said sleeve, an annular series of ratchet-shaped teeth carried by said drum, and means for moving said drum laterally to bring the teeth and pawl into and out of engagement.

3. In an appliance for checking horses the combination of a wheel, a cable-drum adapted to be moved laterally to and from the wheel, coupling means between the drum and wheel, a collar encircling the axle and engaging the drum laterally, a bracket on the axle forming a guide for the movement of the collar and drum, a vertically-movable seat, a spring-pressed rod supporting said seat, a rock-shaft, a crank-arm on the shaft connected to said rod, and a second crank-arm on said shaft having rod connection with said collar.

4. In an appliance for checking horses, the combination of a wheel, a cable-drum adapted to be coupled to and uncoupled from said wheel, a vertically-movable seat, a connection between said seat and drum to effect movement of the latter, and antirattling means for said parts comprising a spring for elevating the seat and retracting the drum, and a stop with which the drum engages at the end of its retractive movement.

In testimony whereof I affix my signature in presence of two subscribing witnesses.

ALBERT A. JAMES.

Witnesses:
W. T. NORTON,
ELIZABETH L. MCFATE.