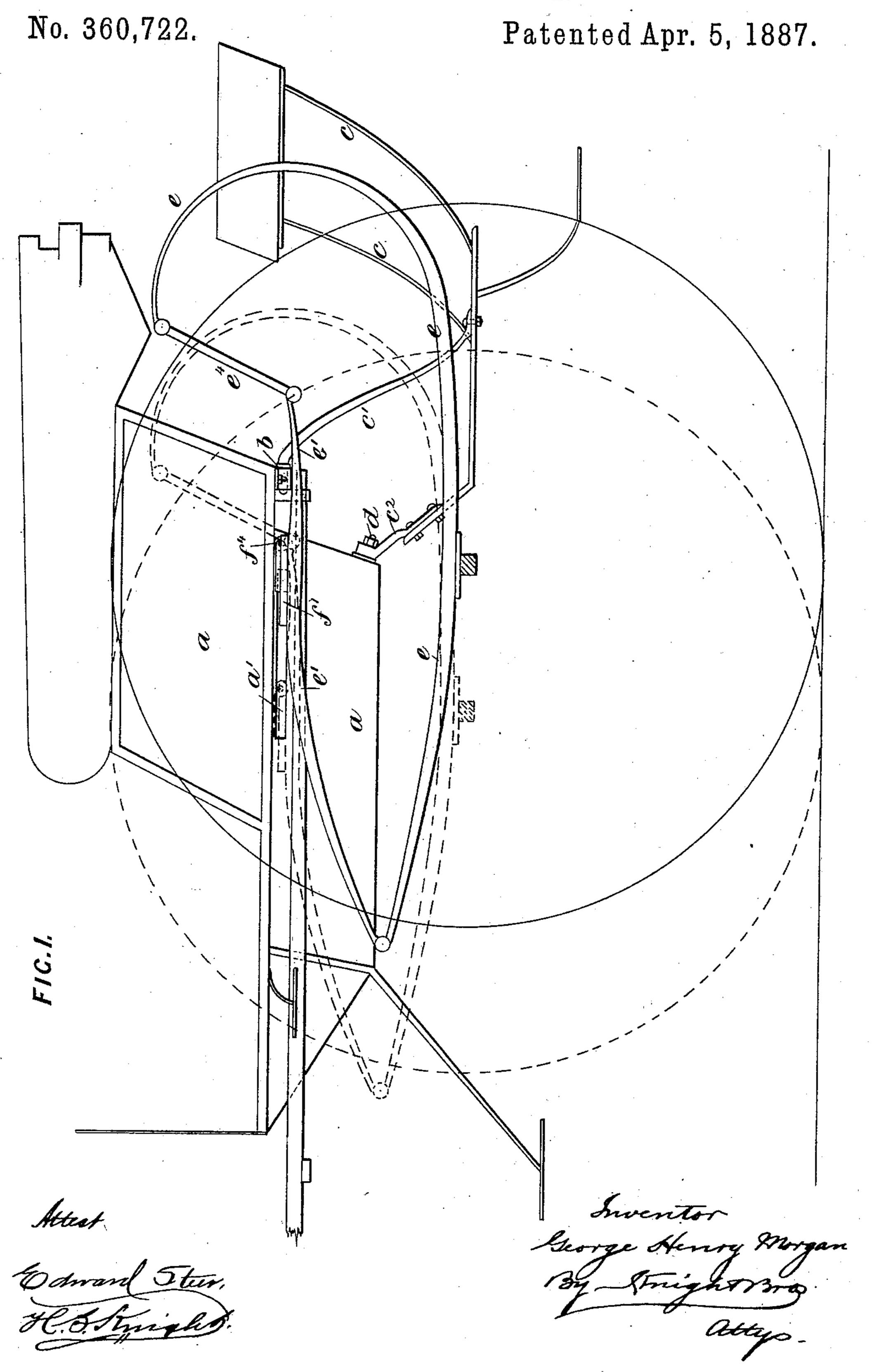
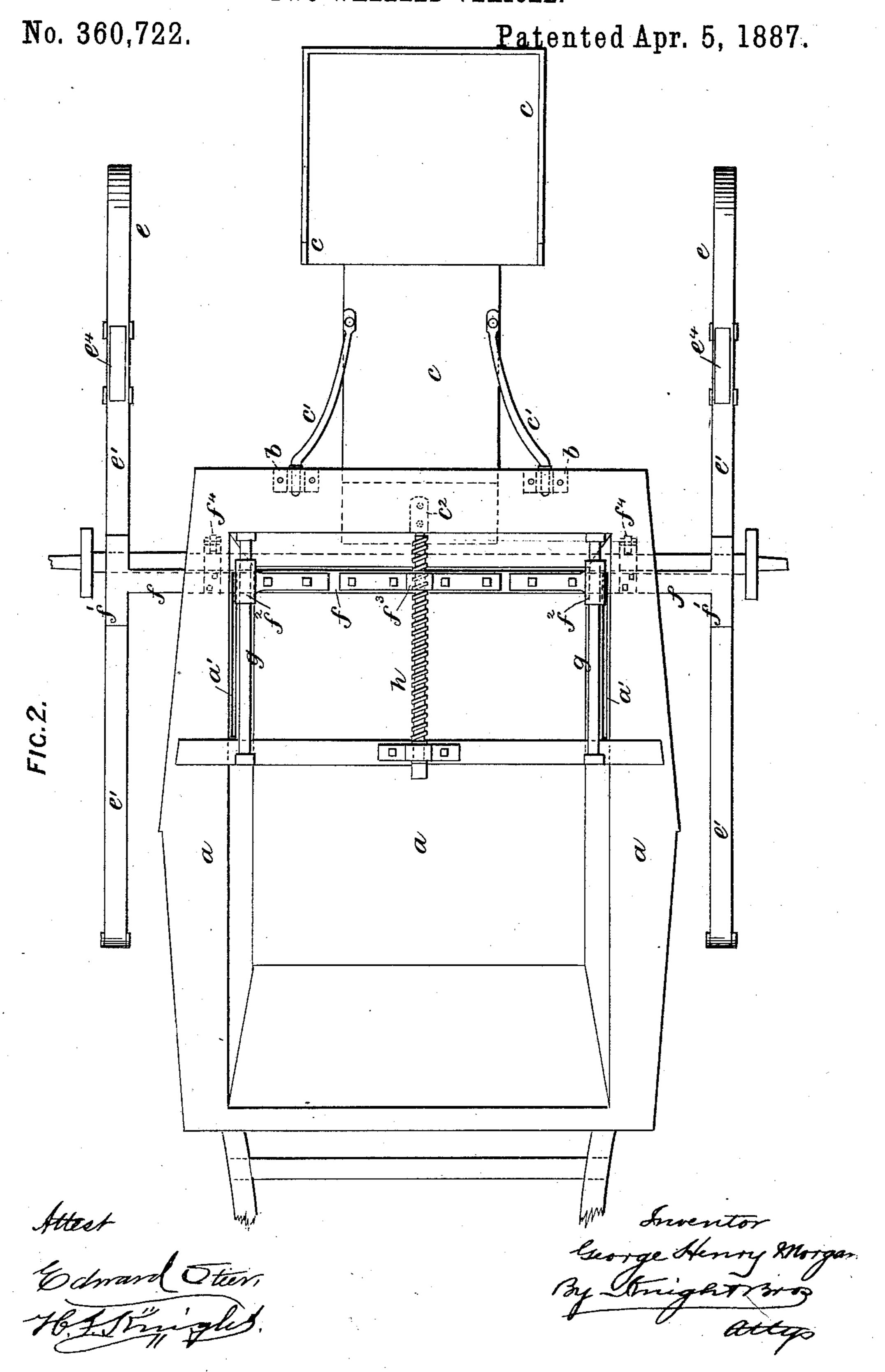
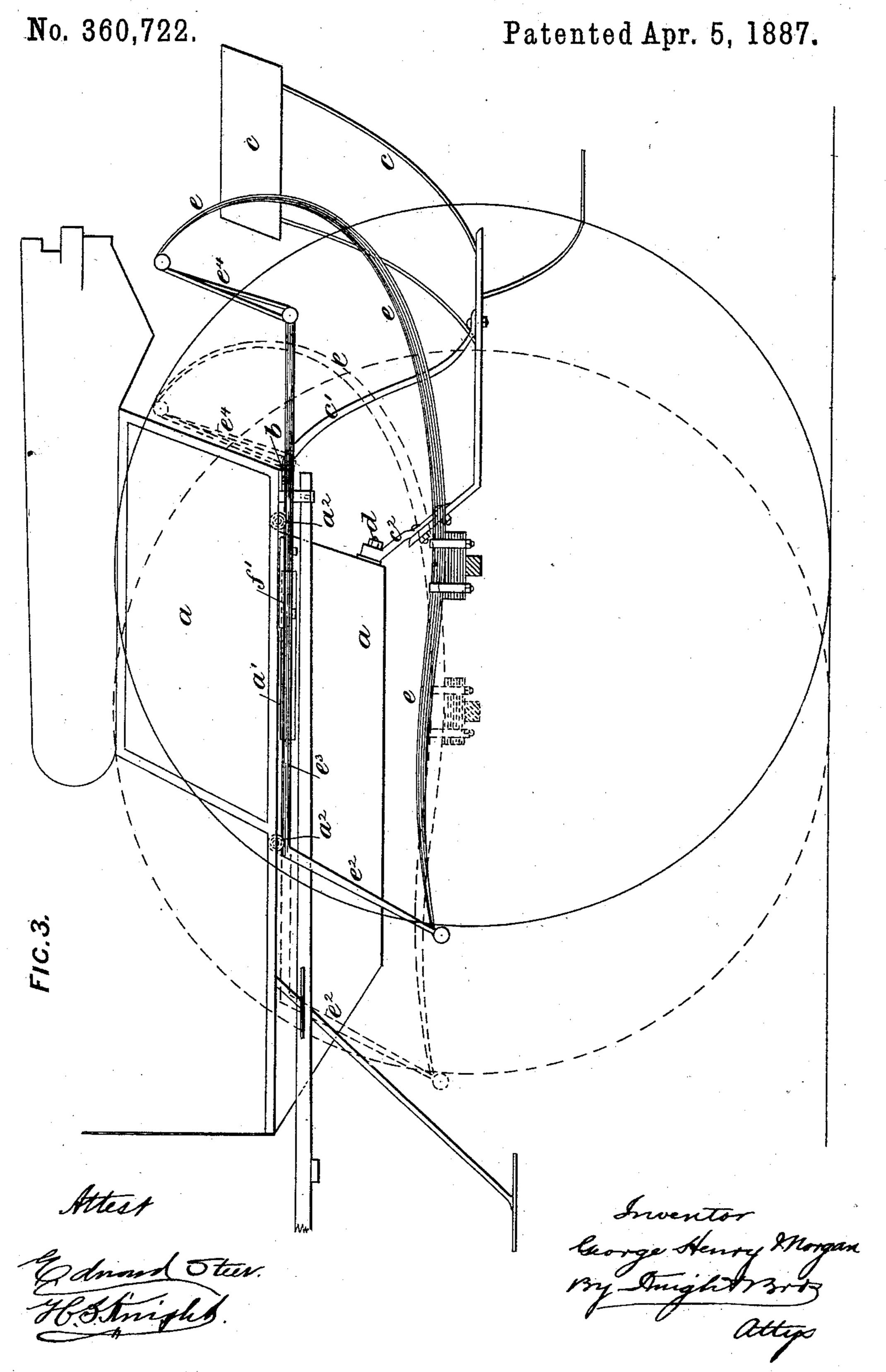
G. H. MORGAN.



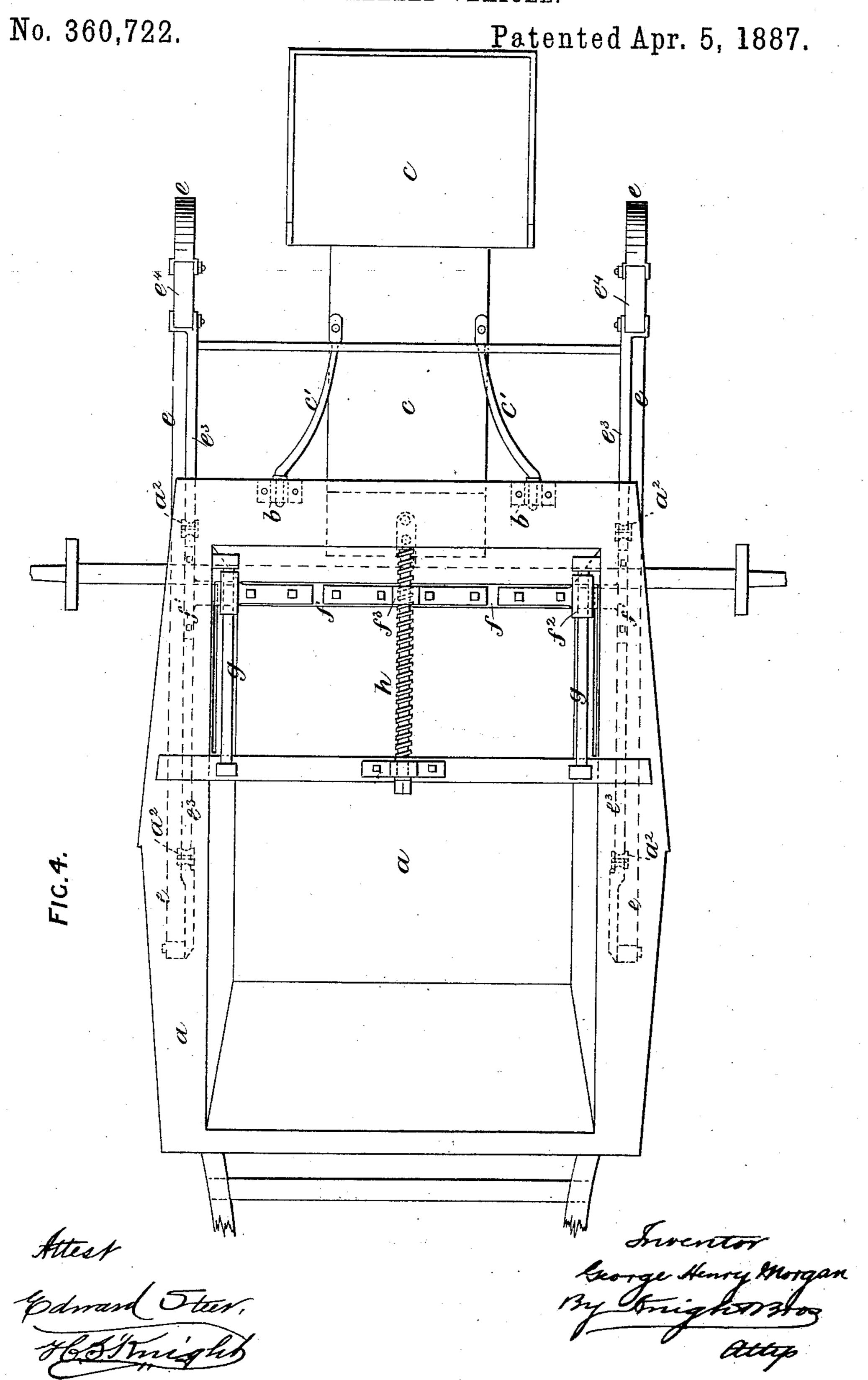
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United States Patent Office.

GEORGE HENRY MORGAN, OF LONG ACRE, COUNTY OF MIDDLESEX, ENGLAND.

TWO-WHEELED VEHICLE.

SPECIFICATION forming part of Letters Patent No. 360,722, dated April 5, 1887.

Application filed September 4, 1886. Serial No. 212,738. (No model.) Patented in England September 23, 1884, No. 12,724.

To all whom it may concern:

Be it known that I, George Henry Morgan, a subject of the Queen of Great Britain, residing at Long Acre, in the county of Middlesex, England, coach-builder, have invented certain new and useful Improvements in Two-Wheeled Vehicles, (for which I have obtained Letters Patent in Great Britain, No. 12,724, dated September 23, 1884,) of which the follow-

ro ing is a specification.

The invention has for its object improvements in two-wheeled vehicles, and relates to means whereby, when a rumble is attached to the back thereof, the springs, axle, and wheels 15 may be shifted in position in relation to the body of the vehicle, so as to properly balance the same. For this purpose I employ suitable sockets or fittings fixed to the under side of the back part of the body of the vehicle to 20 receive the arms or stays of the rumble, which latter is fixed in position by a screw or other suitable means. The springs are fixed to two "flaps," one of which is fixed on each end of a cross-bar passing through slots in each side 25 of the body of the vehicle and provided with tubular or other guides working upon rods fixed one on each side of the interior of the body. The cross-bar is moved to and fro, when required, by means of a screw and nut mounted 30 and fitted in any convenient manner; or other suitable means may be employed for such purpose.

In order that my said invention may be more clearly understood and readily carried into effect, I will proceed, aided by the accompanying drawings, more fully to describe the

same.

In the drawings, Figure 1 is a side elevation, and Fig. 2 is a plan, of a two-wheeled vehicle constructed with my invention applied thereto, and with the upper part of the body removed. Figs. 3 and 4 are similar views showing a modification of parts.

In all the figures like parts are marked with

45 similar letters of reference.

a is the body of the vehicle, which is provided with sockets or fittings b, fixed to the under side of the back part thereof, to receive the arms or stays c' of the rumble c, which lat-

ter is fixed in position by screws d, or other 50 suitable means, acting upon the arm or stay c^2 .

The springs e e are fixed to two flaps, f', one of which flaps is fixed on each end of a cross-bar, f, passing through slots a' in each side of the body of the vehicle, and provided 55 with tubular or other guides f^2 , working upon rods g, fixed one on each side of the interior of the body.

The cross-bar f is moved to and fro, when required, by means of a screw, h, mounted in 60 bearings, as shown, or in other convenient manner, and a nut, f^3 , fixed to the cross-bar f, the screw being formed at its end to receive a key, by which it can be rotated in either di-

rection, when required.

In the arrangement shown at Figs. 1 and 2, the cross-bar f is provided with a pair of rollers, f^4 , which run on metal plates fixed to the under side of the body of the vehicle, and the springs e are connected to the flaps f' through 70 the intervention of half-springs e', while in the modification shown at Figs. 3 and 4 the springs e are connected at their front ends to arms or struts e^2 , fixed to the front ends of rods e^3 , which are fixed to the flaps f', and the bows of the springs e are connected to the rear ends of the rods e^3 by straps e^4 . In this modification I mount a pair of rollers, a^2 , on each side of the body of the vehicle, which rollers run on the rods e^3 .

The rollers a^2 and f^4 act to render the motion of the body of the vehicle on its support

smooth and easy.

The drawings represent in full lines the relative positions of the body of the vehicle and 85 the springs, axle, and wheels when a rumble is attached, while the position of the springs, axle, and wheels when the rumble is not in use is shown by the dotted lines.

If desired, other descriptions of springs than 90 those shown and described may be employed.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. In a vehicle, the combination, with the body provided with slots at the sides, of a cross-bar carrying the springs at its ends, and

provided with rods on each side of the interior and longitudinal of the body, which receive said guides, and suitable means for imparting motion to the cross-bar longitudinally 5 of the body, substantially as and for the pur-

pose set forth.

2. In a vehicle, the combination, with the body provided with slots at the sides, of the springs, a cross-bar passed through said slots 10 and having suitable means of connection with the springs, tubular guides on the cross-bar, longitudinal rods on each side of the body, upon which the tubular guides are fitted, and suitable means for imparting motion to the cross-15 bar and springs longitudinally of the body, substantially as set forth.

3. In a vehicle, the combination, with the body provided with slots at the sides, of a cross-bar adapted to work in said slots, longitudinal rods carried at the ends of said cross- 20 bar, springs connected to said rods, and rollers mounted on each side of the body, and on which said longitudinal rods bear when moved longitudinally, substantially as set forth.

GEORGE HENRY MORGAN.

Witnesses:

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