No. 725,574. PATENTED APR. 14, 1903.

A. N. LOCKE.

MOTOR VEHICLE.

APPLICATION FILED APR. 29, 1902.

NO MODEL. 2 SHEETS—SHEET 1.

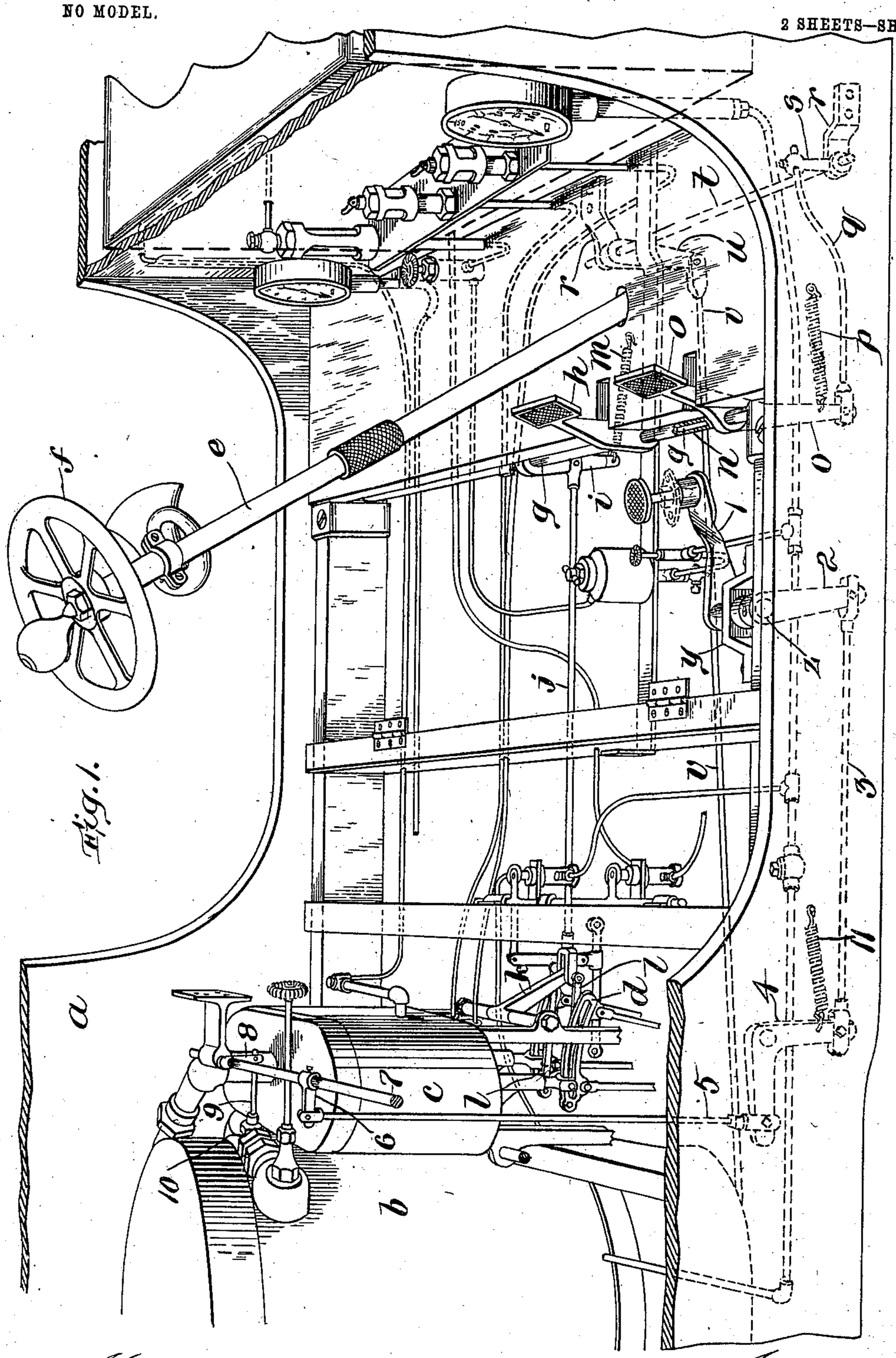

Fig. 1.

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E. A. Allen.

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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 2.

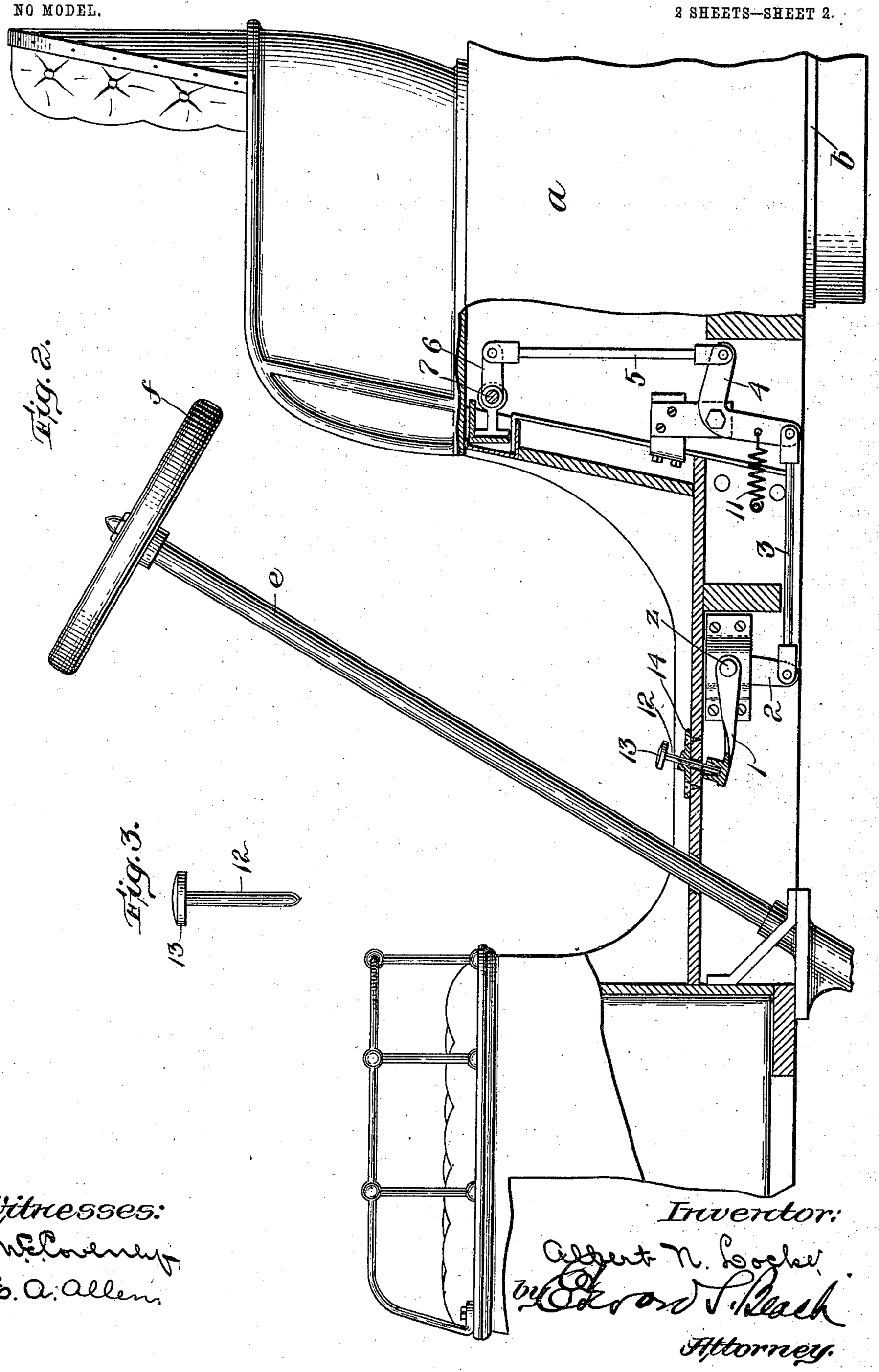

Fig. 3.

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UNITED STATES PATENT OFFICE.

ALBERT N. LOCKE, OF SALEM, MASSACHUSETTS.

MOTOR-VEHICLE.

SPECIFICATION forming part of Letters Patent No. 725,574, dated April 14, 1903.

Application filed April 29, 1902. Serial No. 105,232. (No model.)

To all whom it may concern:

Be it known that I, ALBERT N. LOCKE, a citizen of the United States, residing at Salem, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Motor-Vehicles, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in means by which the driver of the motor-vehicle is enabled to control the vehicle by his feet while both his hands are used in controlling the steering mechanism; and it is the object of my invention to provide means whereby the throttle-valve of the engine, the reversing mechanism of the engine, and the brake mechanism may be controlled either singly or in combination by the driver's feet, leaving both hands of the driver free to control the steering-wheel. When both hands are used on the steering-wheel, the danger of the steering-wheel's being torn from the grasp by the wheel's suddenly striking stones or other obstacles is obviated.

A further object of my invention is to safeguard against tampering with the power-controlling mechanism during the driver's absence.

Other features of my invention will be pointed out in the description which follows.

In the drawings illustrating the principle of my invention and the best mode in which I have contemplated applying that principle, Figure 1 is a perspective view of so much of a motor-vehicle as is necessary to illustrate my invention. Fig. 2 shows in side elevation, partly in sectional view, a part of the throttle-controlling device. Fig. 3 is a detail of the removable headed pin which operates the throttle-controlling device.

a is the carriage-body; *b*, the boiler; *c*, the steam-chest; *d*, the reversing-links of the engine; *e*, the steering-post, and *f* its hand-wheel, as in motor-vehicles now in common use.

Fast upon the rock-bar *g* is the reversing-pedal *h* and the crank-arm *i*, which is connected to the crank-arm *k* by the link *j*. The free end of the crank-arm *k* is connected to the reversing-links *d* by the bars *l*, so that by thrusting the reversing-pedal *h* forward the engine is reversed. The reversing-links *d* are held in their normal position by the spring *m*, one end of which is secured to the crank-arm *i* and the other end to the carriage-body. The rock-bar *g* is reduced in size beyond the reversing-pedal *h*, and its reduced portion is inclosed in a sleeve *n*, fast to which is the brake-lever *o*, to the lower end of which is secured one end of a spring *p* and a link *q*. The other end of the spring *p* is secured to the carriage-body, so as to keep the brake normally out of action. Mounted in bearings *r r* is a rock-shaft *t*, fast upon which are the crank-arms *s* and *u*. The crank-arm *s* is connected to the brake-lever *o* by the link *q*, and the crank-arm *u* is connected by the link *v* with any suitable brake mechanism, so that by thrusting the upper end of the brake-lever *o* forward the brake mechanism is thrown into action.

Mounted in the bearing *y* is the rock-shaft *z*, to the inner end of which is secured the crank-arm 1 and to the outer end of which is fast the crank-arm 2, joined by the link 3 to one end of the bell-crank lever 4. The other end of the bell-crank lever 4 is connected by a link 5 with a crank-arm 6, fast upon a rock-bar 7. This rock-bar 7 also carries the crank-arm 8, which is joined to the stem 9 of the throttle 10. A spring 11, one end of which is secured to one arm of the bell-crank lever 4 and the other end of which is secured to the carriage-body, serves to keep the throttle 10 normally closed. The free end of the crank-arm 1 is under the floor of the carriage and is formed with a socket adapted to receive the pin 12, which passes through a plate 14, fast on the floor of the carriage, into said socket. By pressing with his foot upon the head 13 of the pin 12 the driver opens the throttle 10. When the driver leaves the carriage, he takes with him the pin 12, and thereby prevents any one from tampering with the motive power of the vehicle.

It will be evident from the foregoing description that the driver may combine the action of the brake mechanism with shutting off the steam or may in case of emergency reverse the engine and apply the brake. These

operations are all performed by the feet of the driver, thus leaving his hands free to control the steering mechanism.

What I claim is—

1. In combination, the floor of a motor-carriage; means normally inaccessible to the occupant of the carriage for controlling the motive power; and removable means passing through said floor to bring said controlling means under the control of the occupant of the carriage.

2. In combination, the floor of a motor-carriage; a throttling device normally inaccessible to the occupant of the carriage; and freely-removable means passing through said floor and adapted to be operated by the foot of the driver to bring said throttling device under control of the driver.

3. In combination, the floor of a motor-carriage formed with an aperture; a crank-arm underneath said floor and formed with a socket; a pin passing through said aperture into said socket and adapted to be operated by the foot of the carriage-driver; mechanism connecting said crank-arm with a power-controlling mechanism; and said power-controlling mechanism.

4. In combination, a motor-vehicle; a rock-bar mounted thereon; a pedal secured to said rock-bar; mechanism connecting said rock-bar with a reversing device; said reversing device; a sleeve on said rock-bar; a pedal-lever fast on said sleeve; and mechanism connecting said pedal-lever with a suitable brake device.

5. In combination, a motor-vehicle; hand-controlled steering apparatus therefor; power-controlling mechanism normally inaccessible to the occupant of said motor-vehicle; and a foot-operated device under control of said occupant and freely detachable from said power-controlling mechanism for bringing said power-controlling mechanism under control of said occupant.

6. The combination in a motor-vehicle of a supporting-frame; a shaft mounted therein; a pedal fast on said shaft; an engine-reversing device; and means connecting said reversing device with said pedal.

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

ALBERT N. LOCKE.

Witnesses:
M. E. COVENEY,
E. A. ALLEN.