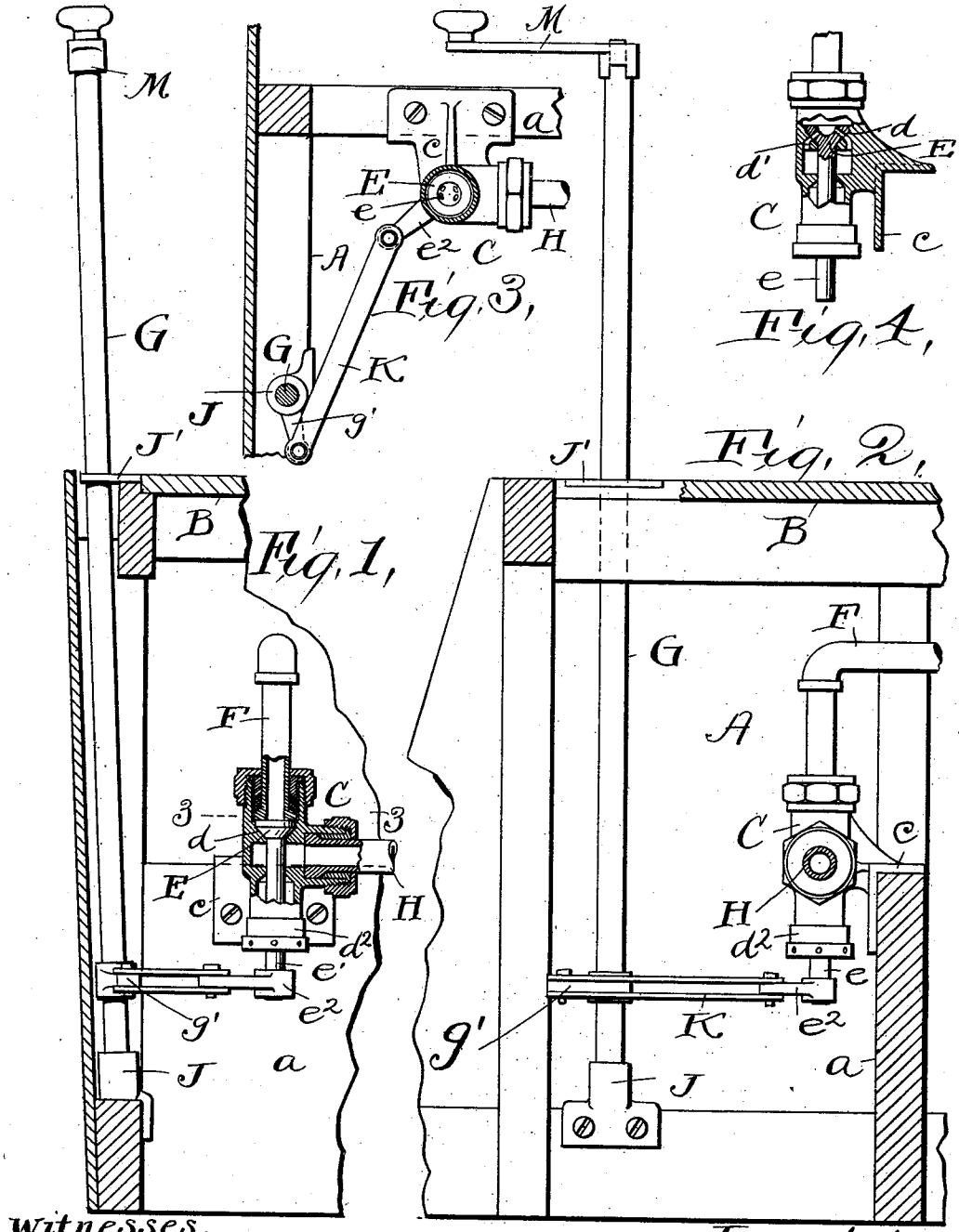
No. 697,586. Patented Apr. 15, 1902.

R. H. WHITE.

THROTTLE VALVE FOR STEAM CARRIAGES.

(Application filed Apr. 19, 1901.)

(No Model.)



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ROLLIN H. WHITE, OF CLEVELAND, OHIO, ASSIGNOR TO THE WHITE SEWING MACHINE COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

THROTTLE-VALVE FOR STEAM-CARRIAGES.

SPECIFICATION forming part of Letters Patent No. 697,586, dated April 15, 1902.

Application filed April 19, 1901. Serial No. 56,541. (No model.)

To all whom it may concern:

Be it known that I, ROLLIN H. WHITE, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Throttle-Valves for Steam-Carriages, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

The object of the invention is to provide a throttle-valve and its operating mechanism especially adapted to be used on a steam-carriage and to be so located thereon that it may be most conveniently operated and will be least liable to be accidentally moved so as to open said valve.

The invention consists in the construction and combination of parts hereinafter described, and pointed out definitely in the claims.

In the drawings, Figure 1 is a sectional front elevation of one side of a steam-carriage to which my improved throttle-valve is applied. Fig. 2 is a sectional side elevation of the parts shown in Fig. 1. Fig. 3 is a sectional plan view of the same parts in the plane indicated by the line 3 3 of Fig. 1. Fig. 4 is a vertical sectional view of the throttle-valve when the same is open.

The specific embodiment of the invention shown in the drawings will now be described.

Referring to the parts by letters, A represents one side of the body-vehicle, and B the seat thereof.

C represents the throttle-valve casing, which has external wings *c*, whereby it may be connected to the horizontal member *a* of the body. The steam from the generator is admitted to the upper part of said casing through the pipe F, and it passes out of the lower part of said casing to the engine through a pipe H. Between the inlet and outlet openings is a tapered valve-seat *d*, to which the throttle-valve E is fitted and on which it may turn. One or more ports *d'* pass through this tapered valve-seat, which ports are normally closed by said valve.

The throttle-valve E, which is a truncated cone, has one or more ports *e* leading from its top down through its tapered sides, wherefore the lower ends of these ports will sometimes be closed by the tapered sides of the valve-seat. When the valve is properly turned, however, the lower ends of these ports will register with the upper ends of the ports *d'* in the valve-seat. This valve has on its under side a concentric stem *e'*, which extends out of the bottom of the casing through a stuffing-box d^2. On the lower end of this stem an arm e^2 is secured.

A vertical operating-shaft G is stepped in a bracket J, secured to the side of the vehicle-body below the seat B, and it extends up above said seat and through another bearing J'. An arm *g'* is secured to this shaft above the bracket J and below the seat, and the two arms *g'* and e^2 are connected by a link K, whereby the turning of this operating-shaft will turn the throttle-valve. The upper end of this operating-shaft G is made of angular formation to fit a correspondingly-shaped hole or recess in the throttle-lever M. This throttle-lever is removable from the end of the operating-shaft and is intended to be taken off by the operator when the carriage is left unoccupied, thus preventing the starting of the carriage through carelessness or mischief.

Having described my invention, I claim—

1. The combination of a throttle-valve casing having a valve-seat through which one or more ports are formed, said casing being adapted, above said seat, for connection with the inlet-pipe, and adapted, below said seat, for connection with the outlet-pipe, a rotatable valve resting on said seat and having one or more ports extending through it from its top downward and adapted to be brought into line with the ports in the seat, a valve-stem projecting from the lower side of said valve down through and out of said casing, a laterally-projecting arm secured to said valve-stem, a vertical operating-shaft mounted in suitable bearings, an arm secured to said shaft, a link connecting the two arms, and a handle secured to the upper end of said shaft, substantially as described.

2. The combination of a throttle-valve casing having a tapered valve-seat through which one or more ports are formed; said casing being adapted, above said seat, for connection with the inlet-pipe, and being adapted, below

said seat, for connection with the outlet-pipe, a rotatable tapered valve fitted to said seat and having one or more ports extending from its top down through its tapered lower surface, a valve-stem projecting from the lower side of said valve down through and out of said casing, a laterally-projecting arm secured to said valve-stem, a fixed horizontal bracket, an operating-shaft stepped therein, a bearing for said shaft above said bracket, a laterally-extended arm secured to said shaft, a link connecting said arm with the arm on the valve-stem, and an operating-handle secured to the upper end of said shaft, substantially as specified.

3. The combination of an automobile-body, a throttle-valve casing having wings wherewith it may be attached to a horizontal frame member of said body, said casing containing a horizontal tapered valve-seat through which one or more ports are formed, an inlet-pipe connected with said casing above said valve-seat, an outlet-pipe connected with said casing below said valve-seat, a rotatable conical valve fitted to said seat and having one or more ports extending from its top down through its tapered sides, a valve-stem secured to the under side of said valve and extended out through said casing, a laterally-extended arm secured to said valve-stem, a horizontal bracket secured to the vehicle-body, an operating-shaft stepped therein, a bearing embracing said shaft above its lower end and secured to the vehicle-body, and an operating-handle removably secured to the upper end of said shaft, substantially as specified.

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

ROLLIN H. WHITE.

Witnesses:
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E. B. GILCHRIST.