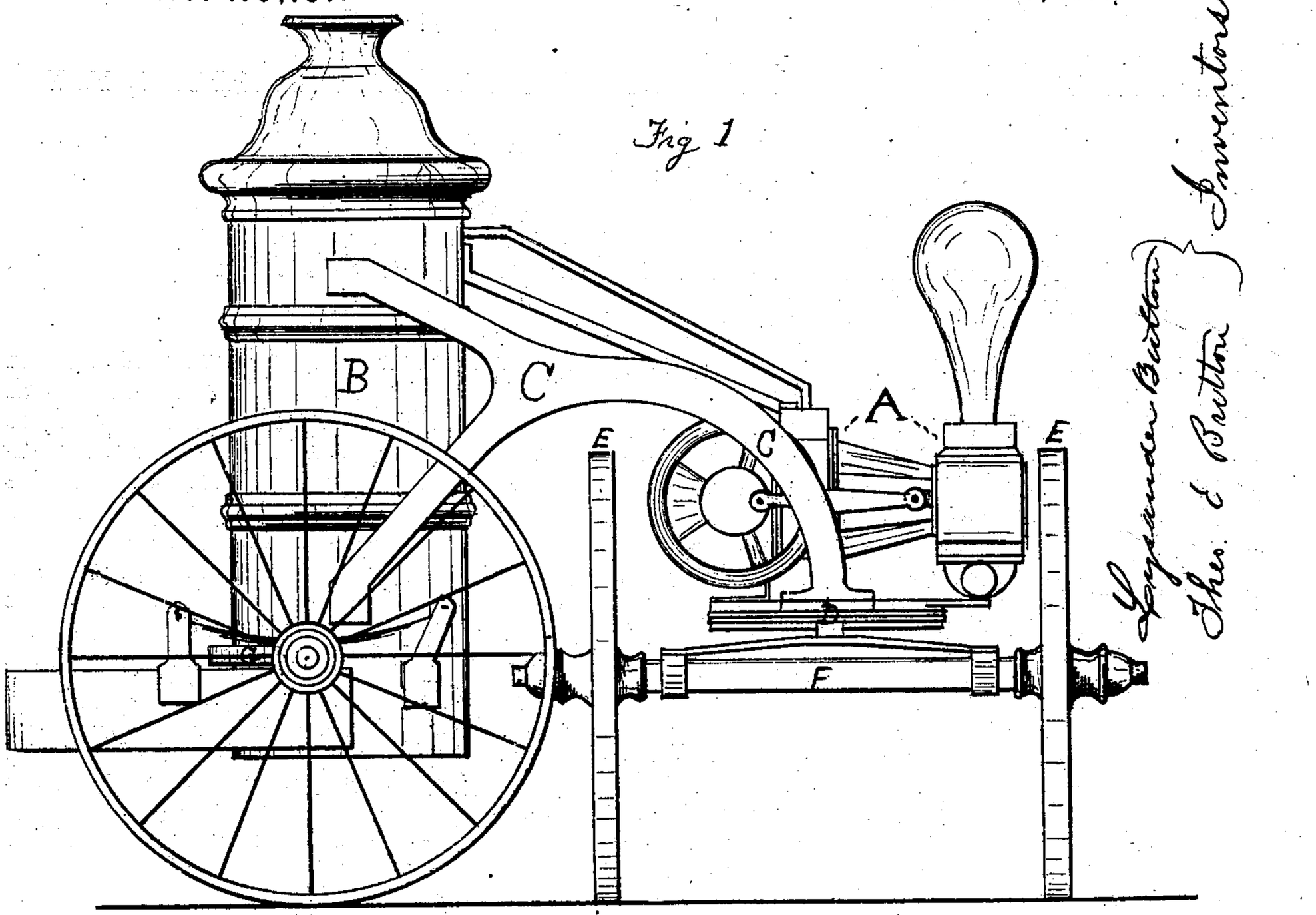
L. BUTTON & T. E. BUTTON.

Improvement in Steam Fire Engines.

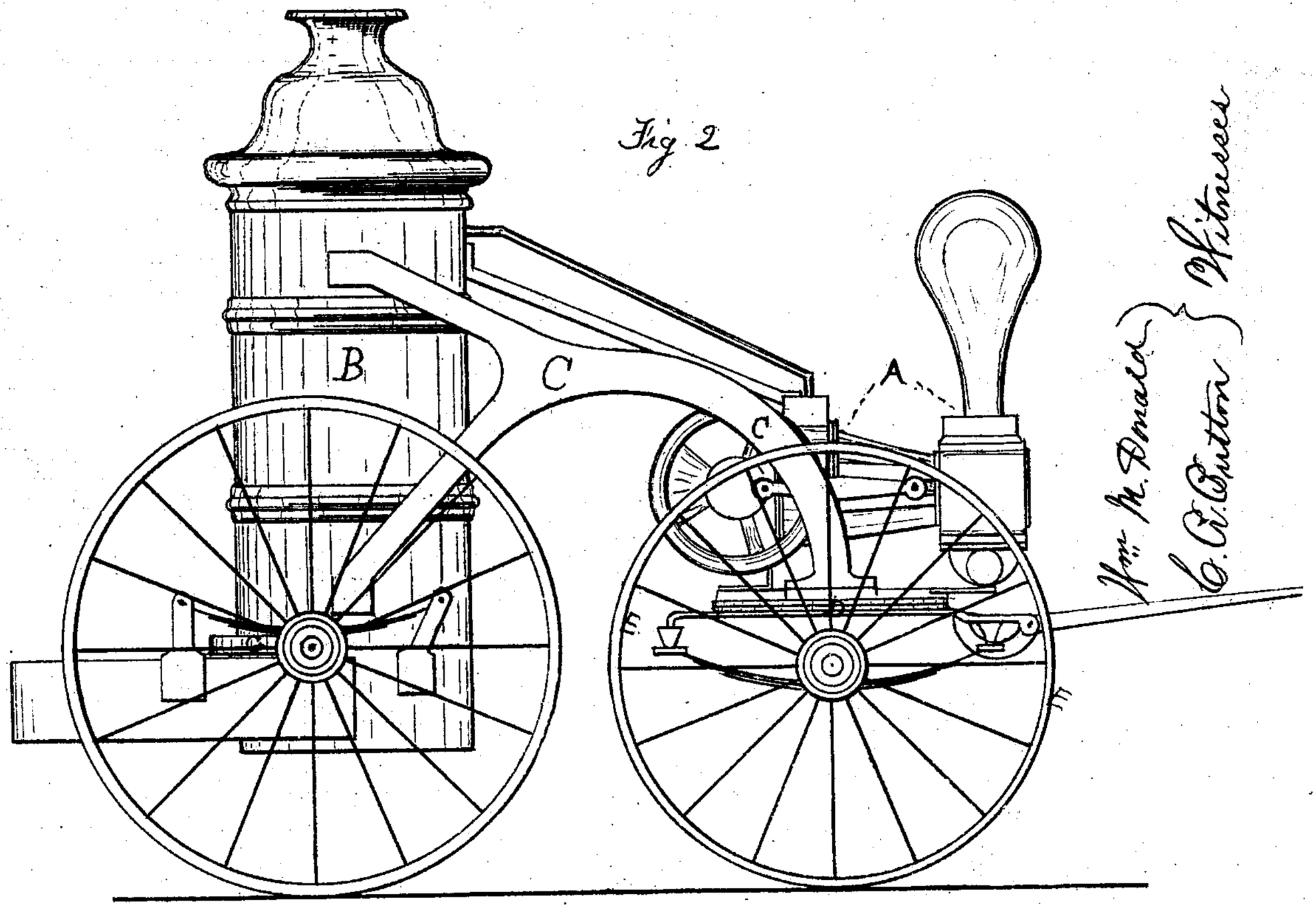
No. 116,151. Patented June 20, 1871.

Fig 1



Witnesses
Lyman Button
Theo. E. Button
Inventors

Fig 2



Witnesses
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116,151

UNITED STATES PATENT OFFICE.

LYSANDER BUTTON AND THEODORE E. BUTTON, OF WATERFORD, N. Y.

IMPROVEMENT IN STEAM FIRE-ENGINES.

Specification forming part of Letters Patent No. 116,151, dated June 20, 1871.

To all whom it may concern:

Be it known that we, LYSANDER BUTTON and THEODORE E. BUTTON, of Waterford, in the county of Saratoga and State of New York, have invented a certain Improvement in Steam Fire-Engines, of which the following is a specification.

Our invention relates to the combination of the boiler and works of a steam fire-engine with a running-gear, so constructed as to dispense with a reach or perch-pole and allow the forward wheels to be turned completely under the frame in such a manner as to place the weights of the parts upon the axles and relieve the frame of all strain except what is necessary to preserve the proper relative position of the axles. This invention has for its object to improve the construction of steam fire-engines in such a way as to render them less liable to be injured or disabled by the giving way of certain parts, and to adapt them also to be turned or managed with greater facility, accuracy, and safety, while the engineer and fireman shall have access to the engine and boiler, respectively, as to greatly facilitate the permanence of their duties. To this end we arrange all the parts composing the engine directly over the front axle and the boiler on the rear axle, connecting the said axles by curved reaches or braces. Thus the front wheels may be turned completely round the engine, which facilitates turning in narrow limits, and enables the tongue and connected parts to be placed out of the way of the engineer. This construction also allows the engineer and fireman to work entirely separate or without one being in the way of the other, and removes the weight of both engine and boiler entirely from the reaches, enabling them to be made light so as to reduce the aggregate weight and cost of the machine. The saving effected in repairs and the increased speed with which our improved engines may be driven alone must equal or exceed in a brief period its entire cost; whereas those hitherto employed are continually getting out of repair, and are comparatively heavy and unmanageable.

Figure 1 is a side elevation of a steam fire-engine embodying our invention, showing the forward axle turned at right angles to the hind axle. Fig. 2 is a side elevation of the same with the axles parallel.

A is the steam-engine and pump of a steam fire-engine, which may be of any construction, but must be of such dimensions as to allow the forward wheels E E to turn completely around them. They are placed directly over the axle F upon the fifth-wheel D. The forward axle F, with the fifth-wheel D and works A, is connected with the boiler B and hind axle G by any suitable frame, C, so constructed as to permit the wheels E E to be turned completely under it.

We do not claim the invention of a steam fire-engine arranged for the forward wheels to turn under the frame; but

We claim as our invention—

The improved steam fire-engine herein described, formed by the arrangement of an engine, A, directly over the forward axle F, so that the wheels E E may turn about it, and the boiler B, in connection with the rear axle G, together with the curved reaches C C, all constructed and arranged substantially as shown and described, for the purpose specified.

LYSANDER BUTTON.
THEO. E. BUTTON.

Witnesses:
WM. M. DONALD,
C. R. BUTTON.