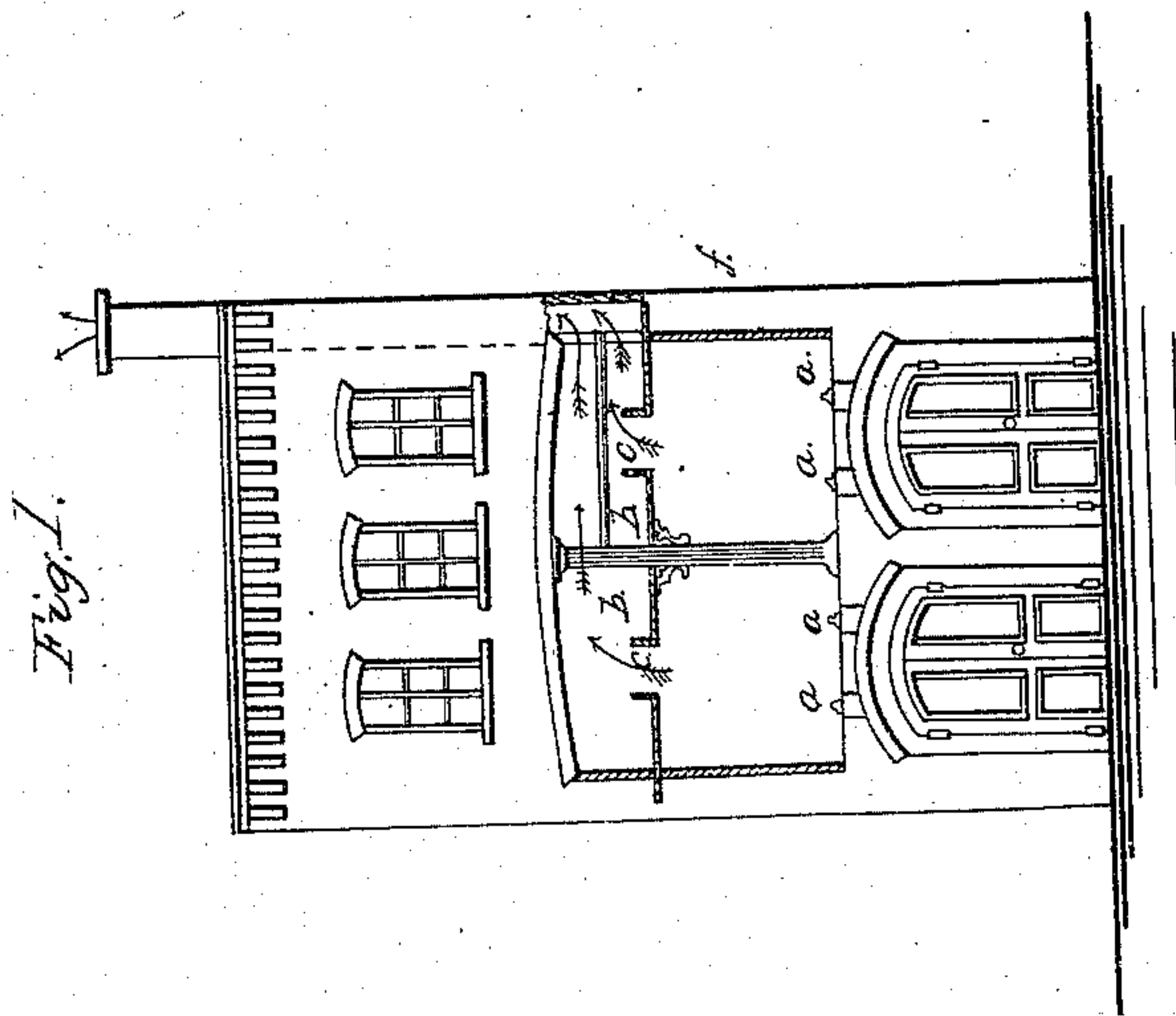
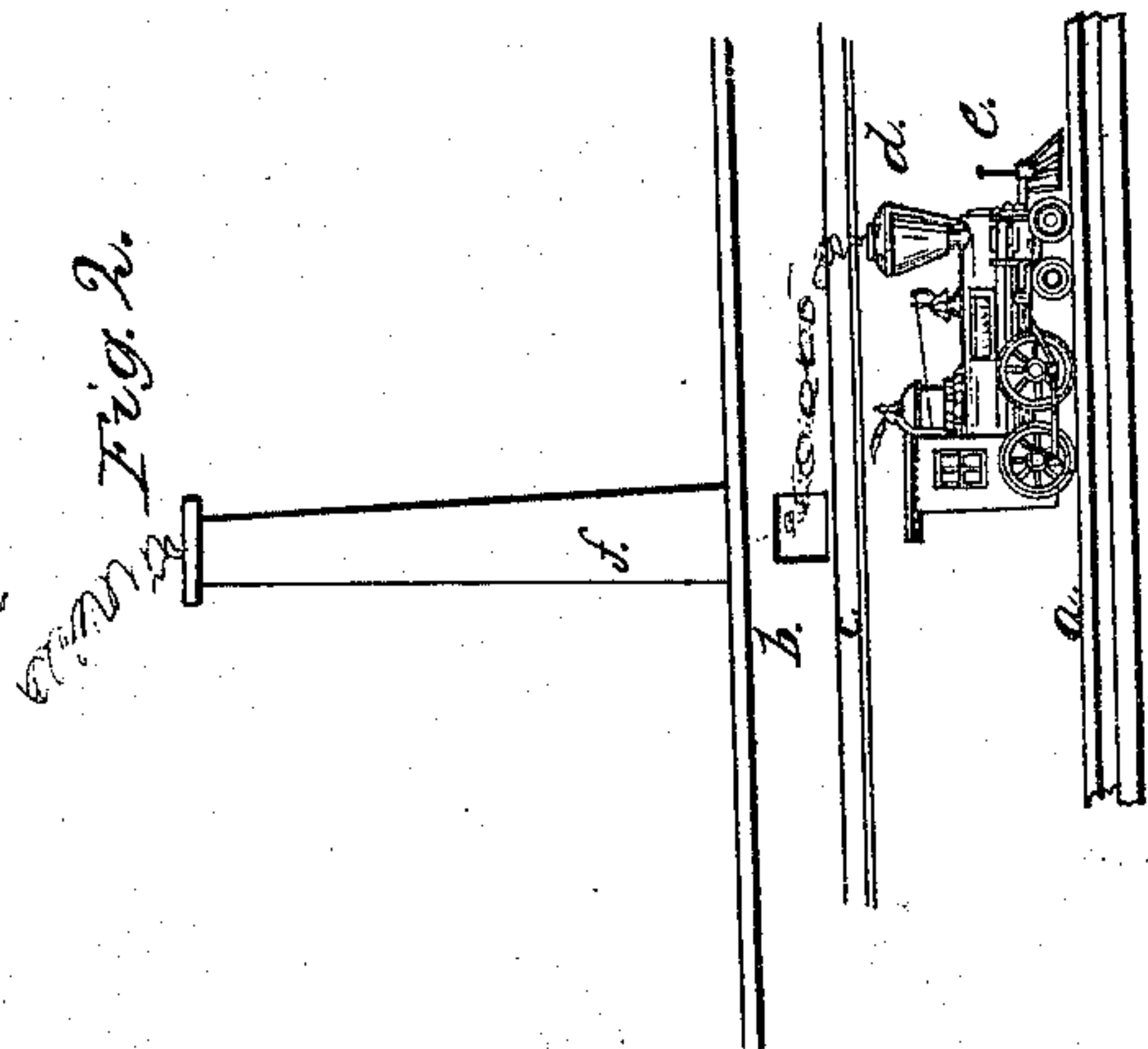


J. Greacen, Jr.

Constructing Buildings.

N^o 66,703.

Patented Jul. 16, 1867.



Witnesses:
Chas. L. Harvel
Geo. L. Walker

Inventor:
J. Greacen Jr.

United States Patent Office.

JOHN GREACEN, JR., OF NEW YORK, N. Y.

Letter Patent No. 66,703, dated July 16, 1867; antedated July 5, 1867.

IMPROVED SMOKE-CONDUCTOR FOR RAILROAD LOCOMOTIVES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOHN GREACEN, Jr., of the city and State of New York, have invented and made a certain new and useful improvement in Smoke-Conductors for Railways; and I do hereby declare the following to be a full, clear, and exact description of the said invention, reference being had to the annexed drawing, making part of this specification, wherein—

Figure 1 represents my said smoke-conductor as applied to an elevated railway passing through a building; and

Figure 2 is a longitudinal section of the smoke-conductor.

Similar marks of reference denote the same parts.

In cities and at depots the smoke and products of combustion escaping from locomotives are a prolific source of annoyance and often injury, and in cities particularly the smoke and escape steam have caused locomotive travel generally to be prohibited. The nature of my said invention consists in a smoke-chamber, with an opening running along over the track, in close proximity to the funnel or smoke-pipe, so that the products of combustion will pass directly into such chamber, in combination with chimneys or vertical flues connecting with such chambers, to draw off the products of combustion and vapors, and deliver them at such an altitude that they will not be an annoyance; hence the use of locomotives will cease to be objectionable, even through cities.

In the drawing *a* is the track, *b* the smoke-chamber, *c* the longitudinal opening in such chamber over the smoke-funnel or pipe *d* of a locomotive engine; *e* is an opening from the chamber *c* to the chimney or vertical flue *f*. In fig. 1 I have shown two tracks and two smoke-chambers, having separate connections to the flue *f*; but chimneys may be used on both sides or over the chamber or chambers, to convey away the smoke and gases. If desired, the edges of the opening into the smoke-chamber may be raised, as shown, so that the smoke, &c., may have a trough into which to pass in case the condition of the atmosphere is such as to cause the smoke to descend. These edges retain condensation in cases where the steam and smoke escape together, and suitable pipes or conductors may be employed to convey away the water of condensation, and there may be pendent flanges at the sides of the opening between which the smoke-pipe passes. It will be evident that a smoke-chamber and chimney of the character described may be placed over a track at a depot to prevent the smoke being blown into the depot. A railroad fitted with the smoke-chamber its entire length may run through cities without the locomotive being an annoyance, as said railway may be elevated and pass through the central portions of the blocks of buildings, crossing over the respective streets in an open or closed bridge, with the smoke-conductors, formed as aforesaid, over the smoke-pipe or funnel. This improvement may be introduced in tunnels by forming a chamber over the cars, from which the smoke, gases, &c., are drawn by the usual air draughts, or by chimneys specially provided for the same; or the smoke may be withdrawn from the chamber by blowers, if required. Where this smoke-chamber is introduced over a city railroad it may be built in or as part of the buildings themselves; and when constructed at those portions of a railway where there are not ordinary buildings to support the smoke-chamber and flues, these may be sustained upon columns or in any other convenient manner, so that the longitudinal opening for the smoke may come directly over the smoke-stack or chimney of the locomotive.

What I claim, and desire to secure by Letters Patent, is—

A smoke-chamber, with an opening running longitudinally of the track, in combination with flues or chimneys, as set forth, so that the smoke from the chimney of a locomotive, while in motion, may be received by said chamber and conveyed away as specified.

In witness whereof I have hereunto set my signature this seventeenth day of July, A. D. 1866.

JOHN GREACEN, JR.

Witnesses:

THOS. GEO. HAROLD,
GEO. D. WALKER.