

(No Model.)

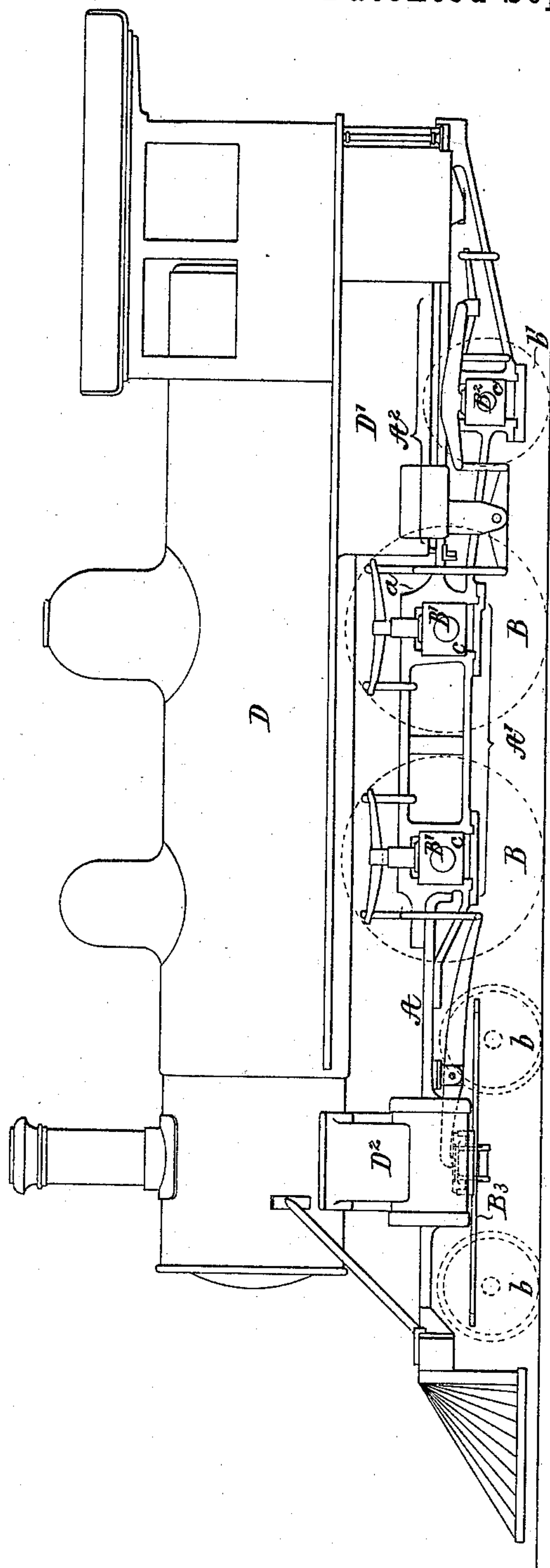
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W. P. HENSZEY.
LOCOMOTIVE.

No. 545,797.

Patented Sept. 3, 1895.

FIG. 1.



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Inventor:
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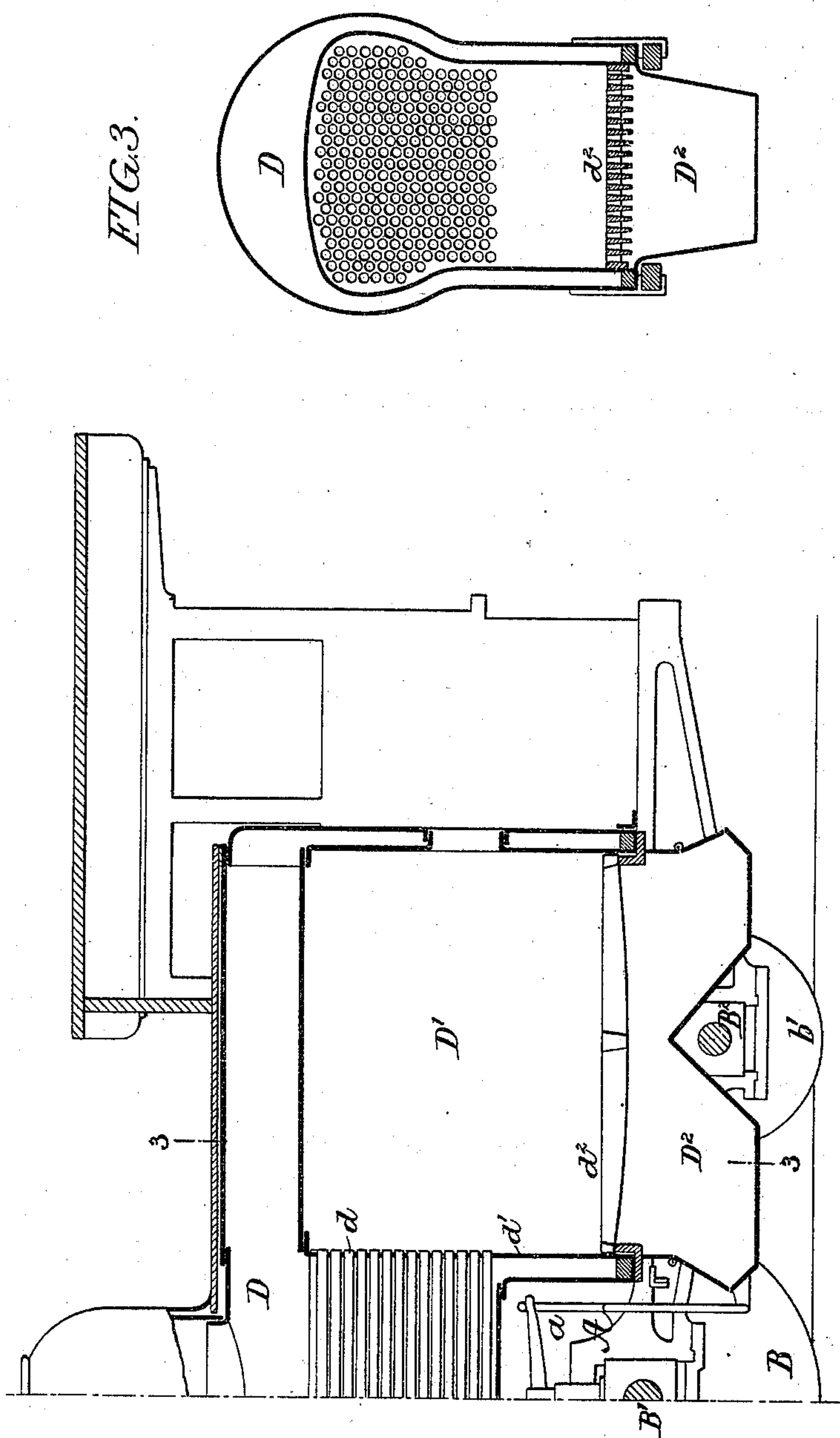
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UNITED STATES PATENT OFFICE.

WILLIAM P. HENSZEY, OF PHILADELPHIA, PENNSYLVANIA.

LOCOMOTIVE.

SPECIFICATION forming part of Letters Patent No. 545,797, dated September 3, 1895.

Application filed May 3, 1895. Serial No. 548,001. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM P. HENSZEY, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain
5 Improvements in Locomotives, of which the following is a specification.

The object of my invention is to so construct a locomotive of the passenger type having large driving-wheels that a long, wide, and
10 deep fire-box may be used. In constructing the ordinary passenger-locomotive the depth of the fire-box has been sacrificed when width and length were obtained, and when depth was obtained the fire-box was very much con-
15 tracted. By my invention I am enabled to increase the length and width of the fire-box and at the same time obtain the depth required.

In the accompanying drawings, Figure 1 is a side view of the locomotive constructed in
20 accordance with my invention, the wheels being shown by dotted lines. Other details of the locomotive have been omitted in order to more clearly illustrate my invention. Fig. 2 is a longitudinal sectional view illustrating
25 the fire-box. Fig. 3 is a transverse sectional view on the line 3 3, Fig. 2.

A is the frame of the locomotive.

B B are the driving-wheels.

b b are the front truck-wheels, and *b'* are
30 the trailing wheels.

The wheels B B are mounted on axles *B'*, journaled in suitable boxes *c*, adapted to the frame A, and the trailer-wheels *b'* are mounted
35 on axles *B²*, journaled in boxes *c'*, adapted to the frame.

D is the boiler of the ordinary construction, *D'* is the fire-box, and *D²* is the cylinder-casting. The boiler has a series of tubes *d*, adapted to the tube-sheet *d'*, (shown in Fig. 2,) and
40 below the grate *d²* is the ash-pit *D³*.

The frame A is depressed at *a* in front of the fire-box, so that while the portion *A'* is of one level and will readily accommodate the axles of the large driving-wheels the portion
45 *A²* is on a lower level and will readily accommodate the axle of the trailer and will extend under the fire-box to the rear of the locomotive, so as to be coupled to the tender. It will be understood that the frames of all forms of
50 locomotives usually extend to the rear, so that

the pulling strain will be taken by the frames direct and not through other parts of the locomotive. The frames have generally extended directly on the line of the portion *A'*, and thus the depth or width of the fire-box
55 was sacrificed to accomplish the object.

In the drawings the lower portion of the fire-box rests directly above depressed portions *A²* of the frame A A, as shown in Fig. 3, and by depressing the frames at the points
60 *a*, I obtain the increased depth of fire-box and at the same time keep the width required, and as the frame is depressed I can extend the fire-box to the rear, increasing its length
65 without interfering in any way with other parts of the locomotive. Consequently I can construct a locomotive that will have an increased grate area and a uniformly deep fire-box that will give results not obtainable in
70 other locomotives.

I claim as my invention—

1. The combination in a locomotive of the side frames depressed back of the drivers, the driving wheels and trailers, the boiler, the fire box, the sides of which are directly above the
75 depressed portion of the frame and within the space between the oppositely arranged driving wheels and the trailing wheels so that a wide and uniformly deep fire box is obtained which extends forward between the driving
80 wheels, substantially as described.

2. The combination of the frames A, A of a locomotive, depressed at *a* directly in front of the fire box, the boiler and the fire box of uniform depth, the side walls of the fire box
85 being directly above the depressed portion of the side frames and within the space between the oppositely arranged driving wheels and trailers and having an ash pit extending between the frames and grate bars separating
90 the ash pit from the fire box, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WM. P. HENSZEY.

Witnesses:

JAMES G. KEYS,
FRED WOOLLVEN.