

(No Model.)

2 Sheets—Sheet 1.

J. H. HORNER.

APPARATUS FOR BURNING AND PREPARING PLANT BEDS.

No. 323,151.

Patented July 28, 1885.

Fig. 1.

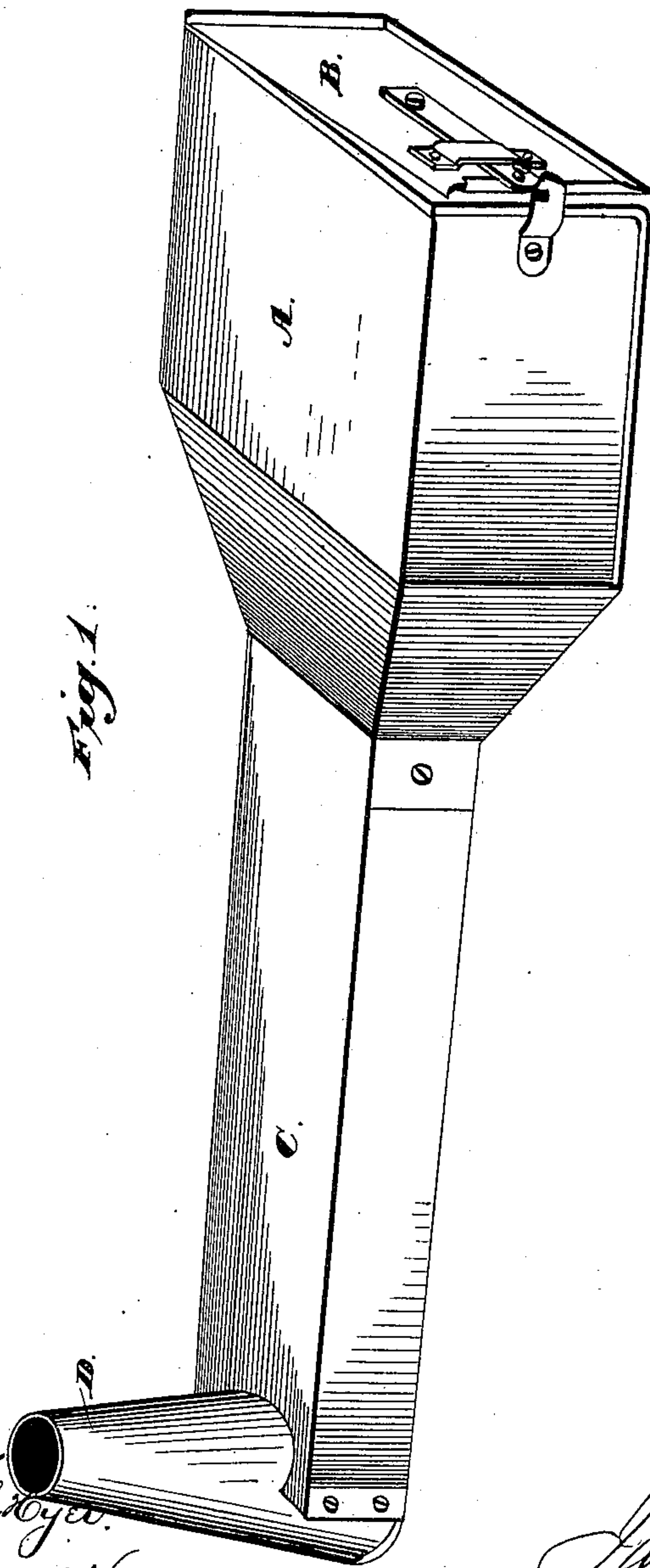
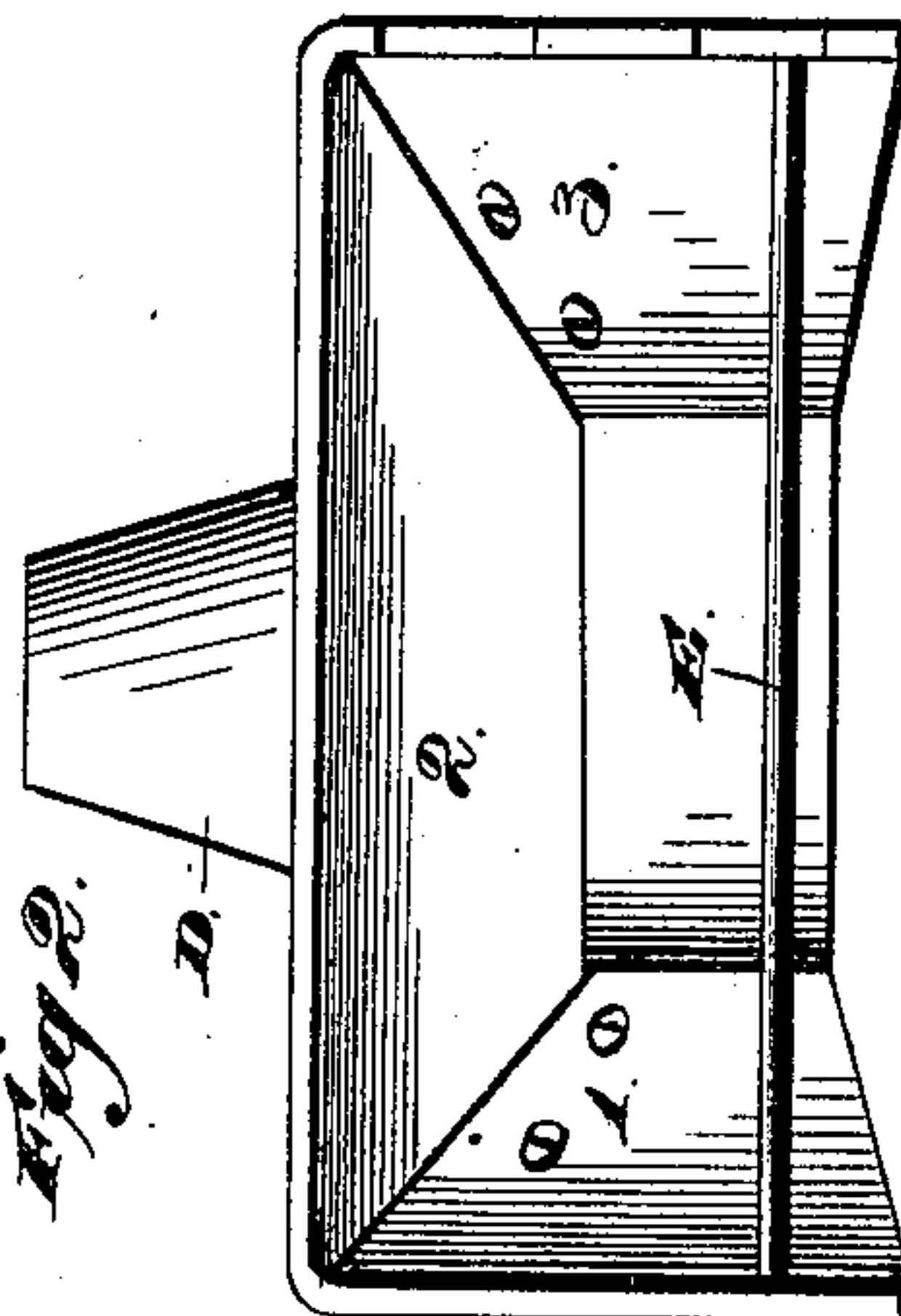


Fig. 2.



Attest:
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D. H. Graves.

Inventor:
James H. Horner

(No Model.)

2 Sheets—Sheet 2.

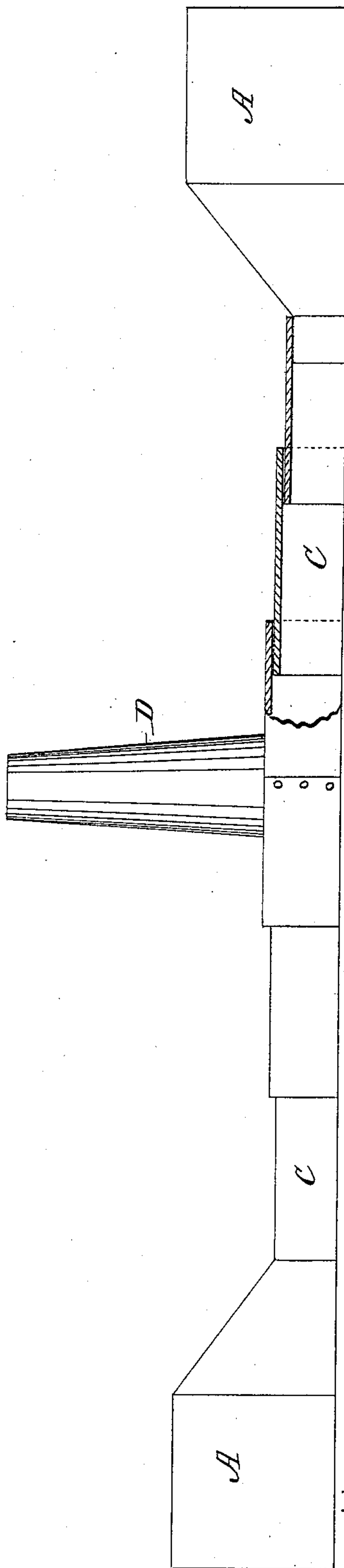
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Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES H. HORNER, OF OXFORD, NORTH CAROLINA.

APPARATUS FOR BURNING AND PREPARING PLANT-BEDS.

SPECIFICATION forming part of Letters Patent No. 323,151, dated July 28, 1885.

Application filed February 16, 1885. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. HORNER, a citizen of the United States, residing at Oxford, in the county of Granville and State of North Carolina, have invented a new and useful Improvement for Burning and Preparing for Sowing Seeds Beds in which plants—such as tobacco, cabbage, sweet potatoes, and in fact all plants—are to be first raised from seed and afterward transplanted.

This invention relates to plant-bed burners; and it has for an object to provide a convenient, simple structure which will efficiently serve its purpose, and by which fuel will be saved and the operation expedited. The object in burning the plant-beds is to destroy the insect life, weeds, and other foreign seeds near the surface, and thoroughly pulverize the soil. Heretofore these plant-beds have been burned by building open fires upon them. This process is expensive, as it requires a large quantity of fuel and labor, and does the work in but an imperfect manner, many parts of the ground being untouched by the fire or only partially or imperfectly burned. Also, by the old process, the farmer has to wait a suitable season, when the soil is dry. By my improvement the condition of the soil is immaterial.

In the drawings, Figure 1 is a perspective view of my improved burner, and Fig. 2 an end view thereof, and Fig. 3 shows a modification.

The burner comprises a furnace, A, of suitable construction, flue C, and an uptake, D. The flue opens at one end into the furnace, and is made of a contracted cross-sectional area compared with the size of the furnace. This outlying flue is open at the bottom, so that the heat passing therethrough will have full effect on the ground over which it is placed, and the soil from either side may be heaped up on the said flue in order to heat such soil, which, when the operation is completed, may be replaced. In this outlying flue the heat is intensified by reason of the contracted space, and better results are consequently secured. It will also be seen that by conducting the heat through this tube it

acts upon a large surface of ground, the same heat operating to burn the ground from the furnace to the discharge. It will be seen that if the flue C is not contracted the heat will pass along close to the upper side thereof, and will have little or no effect on the ground below.

In manufacturing the burner the parts A, C, and D may be made separately and bolted, or otherwise constructed, as shown.

In practice I find it convenient to form the flue C in sections, as shown in Fig. 3, which may telescope one in the other, for convenience in storing and transportation.

I prefer in practice to form the furnace open bottomed, and with a grate, E, slightly elevated, and a door, B, as shown.

Manifestly, when desired, two furnaces may be used, and a flue be extended between them and have a discharge midway its ends, as shown in Fig. 3.

After being used for burning plant-beds the device may be used for other purposes—such as drying tobacco when gathered to be cured, and for other like purposes.

In practice I prefer to form the device of sheet metal, supported at suitable intervals to prevent its warping under the action of heat.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The herein-described plant-bed burner, consisting of a furnace and a flue communicating at one end with the furnace and extended laterally therefrom in approximately a horizontal line, whereby it may be rested flat upon the ground, the said flue being bottomless, whereby the heat will act directly on the ground, and made in cross-section of less area than the furnace, whereby the heat will be intensified and directed in close contact with the ground-surface, substantially as and for the purposes specified.

JAMES H. HORNER.

Witnesses:

W. H. SELDEN,
W. W. PRICE.