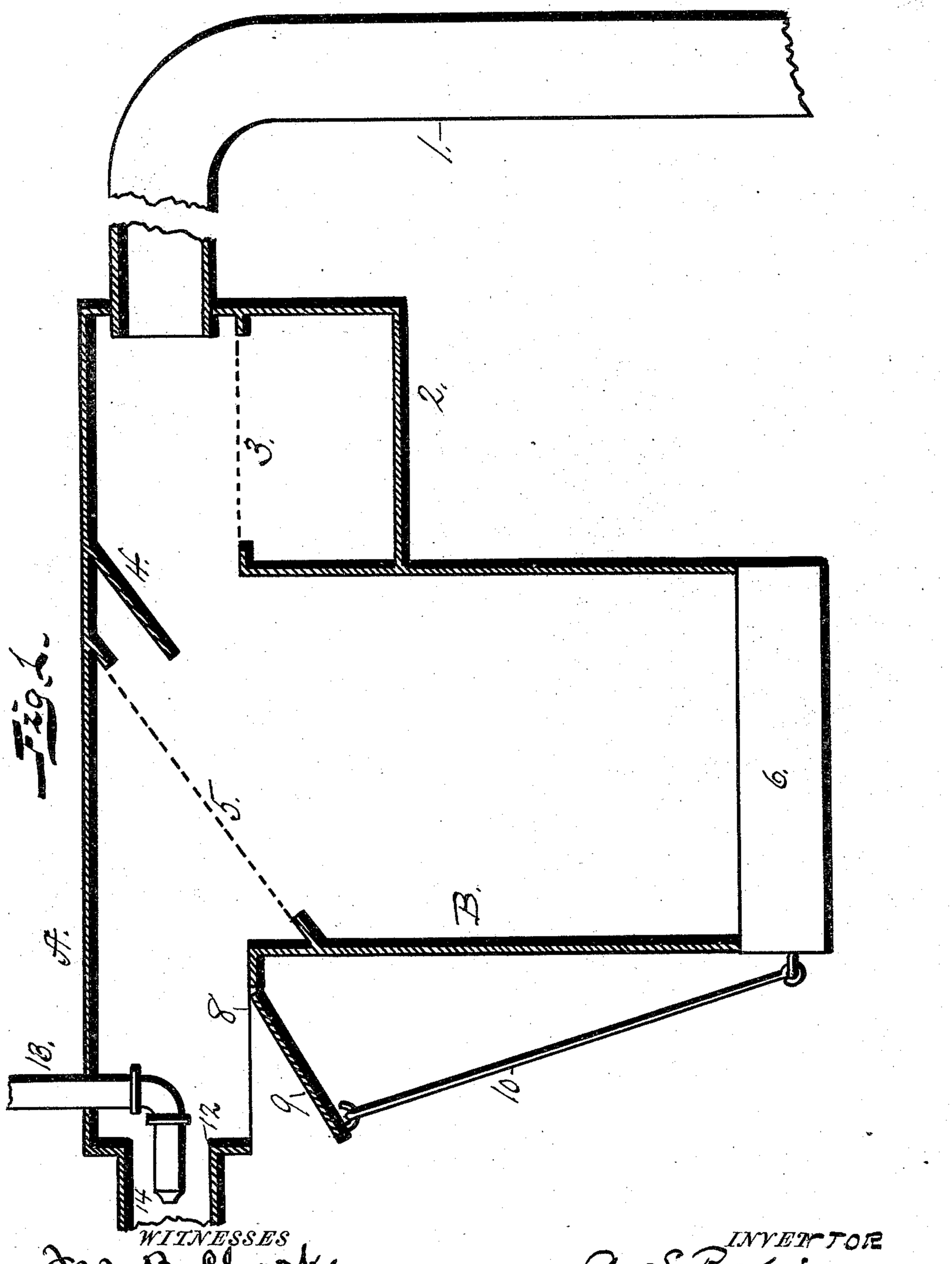
(No Model.) 2 Sheets—Sheet 1.

A. S. ROBINSON.

APPARATUS FOR ELEVATING AND CLEANING SEED COTTON.

No. 470,403. Patented Mar. 8, 1892.



WITNESSES
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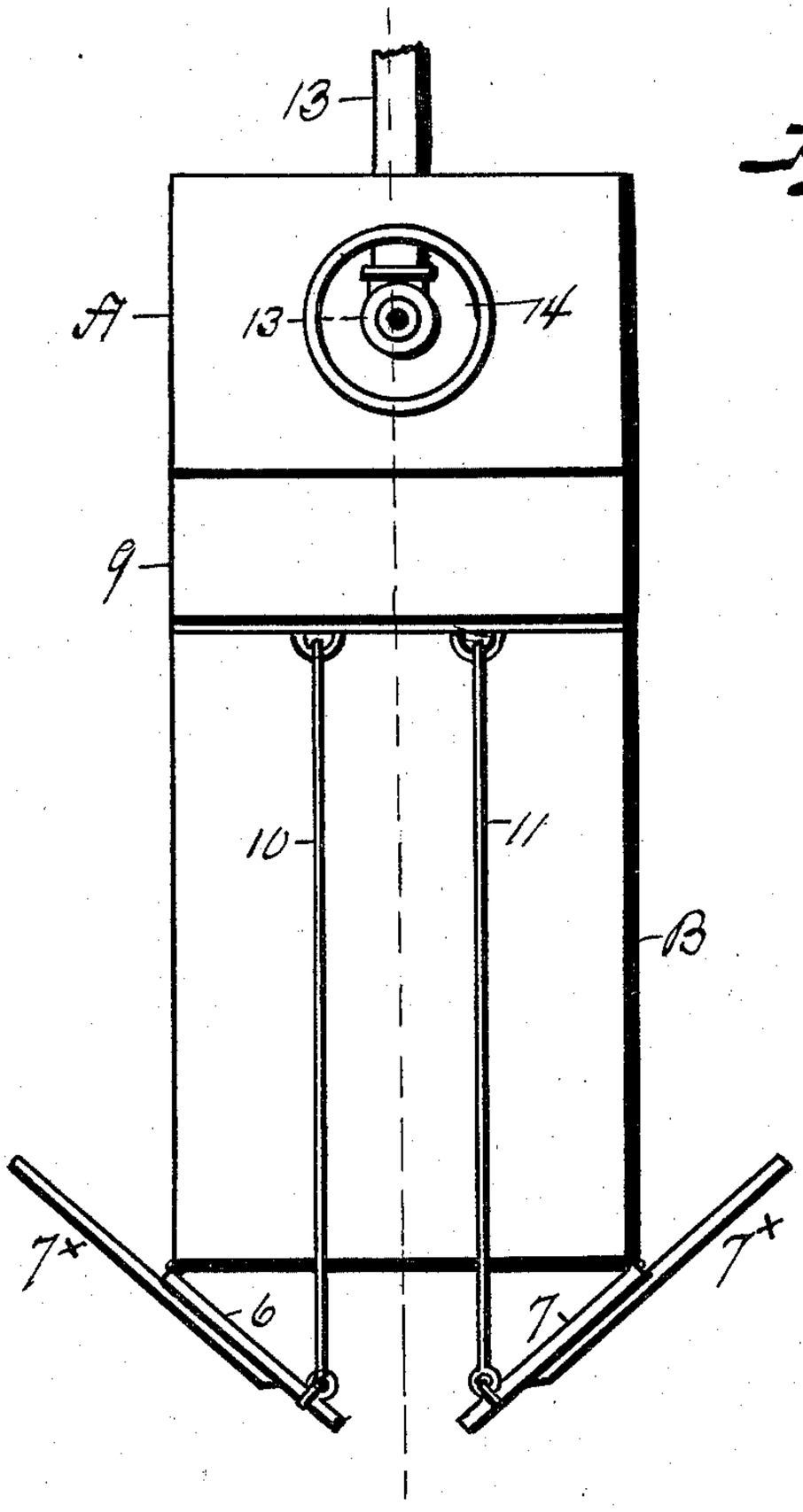
Fig. 2.



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UNITED STATES PATENT OFFICE.

ALBERT S. ROBINSON, OF MONTAGUE, TEXAS.

APPARATUS FOR ELEVATING AND CLEANING SEED-COTTON.

SPECIFICATION forming part of Letters Patent No. 470,403, dated March 8, 1892.

Application filed October 10, 1891. Serial No. 408,329. (No model.)

To all whom it may concern:

Be it known that I, ALBERT S. ROBINSON, a citizen of the United States, residing at Montague, in the county of Montague and State of Texas, have invented certain new and useful Improvements in Apparatus for Elevating and Cleaning Seed-Cotton; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has relation to improvements in means for elevating and cleaning seed-cotton; and the object is to provide an apparatus or mechanism whereby through the instrumentality of a current of air generated by steam, as hereinafter specified, the seed-cotton will be drawn into the apparatus and be deprived of the sand and dirt and deposited at another portion of the machine.

I accomplish the objects of my invention by the means illustrated in the accompanying drawings, wherein—

Figure 1 is a longitudinal vertical section taken on a line *x x*, indicated in Fig. 2. Fig. 2 is an end elevation showing the doors or closures to the bottom of the machine and the connections to the end bottom doors and valve 9 in Fig. 1.

A designates a substantial casing, which may be arranged on any proper supports. At one end of the casing is let in a suction-pipe 1, the outer or lower end of which leads to the cotton or other material to be elevated into the casing. At the lower portion of the casing, directly under the mouth of the suction-pipe 1, is a box-receptacle 2, covered by a wire screen 3, so that as the material passes over this screen from the suction-pipe the sand and dirt will escape through the screen into the receptacle below. Above the passage from the suction-pipe and secured to the top of the casing is a deflecting plate or board 4, which directs the moving cotton downward into the cotton-box B, and to prevent any of the cotton from escaping beyond the cotton-box a screen 5 is arranged before the exhaust-passage, substantially as shown in Fig. 1 of the drawings. The cotton-box B is built or extended down, as shown, and to opposite sides of the bottom are hinged doors 6 7, which have the outer portions extending beyond the hinges, as at $7^{\times}$, to overbalance the inner leaves which close over the end of the cotton-box, so that when the closed doors are pushed open by the accumulation of the cotton in the box and the cotton discharged into the feeder of the gin the doors will swing closed by gravity. At the discharge end of the casing is an opening 8, closed by a door 9, hinged to the edge of the casing, as shown, and between this door 9 and the doors on the bottom of the cotton-box are connecting-rods 10 11, of such length that when the lower doors are closed the door 9 will also be shut over the opening 8 through the agency of the rods and opened by the reverse movement. Adjacent to the exhaust portion 12 of the casing a steam-pipe 13 is let in the casing with its discharge end directed into the pipe or contracted portion 14, so that when steam is discharged through the pipe 13 a current of air will be drawn through the casing and the cotton drawn up through the feed or suction pipe and into the casing.

It will be perceived from the foregoing description and the respective functions of the parts specified that when the doors on the bottom of the cotton-box and the door under the throat of the casing are open if a blast of steam is forced through the steam-pipe a strong upward current of air will be drawn through the opening at the respective doors, the force of the current closing all the doors. The steam-blast being continued, the current will be established through the feed-pipe, carrying with it the material operated upon, which, passing over the screen of the sand-box, will be deprived of the sand and dust, and on reaching the cotton-box drops therein, and when the accumulations are sufficient to bear down and open the doors drops out, after which the doors close and the operation proceeds, as specified.

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

1. In a cotton cleaning and elevating apparatus, a casing for the same, having a feed-pipe at one side thereof, a screen-covered sand or refuse box in said casing beneath the inlet of the feed-pipe, a deflector in advance of said pipe and over the cotton-box, a cotton-box having downwardly and outwardly opening counterbalanced doors at the bottom

thereof, rods connecting these doors with a similar door beneath the outlet of said casing, and a steam-pipe passing through said casing and projecting into the outlet to produce an exhaust in the casing and feed-pipe, substantially as and for the purpose set forth.

2. In a cotton elevating and cleaning apparatus, the combination of a casing provided with a sand-box, and a cotton-box at its lower portion, and an opening in the under side of the throat of the casing, doors to close the bottom of the cotton-box, a door to close the opening in the throat of the casing, connecting-rods between the bottom doors and the throat-door, a feed-pipe at one end of the casing, an exhaust-pipe at the other end, and a steam-blast pipe let into the exhaust-pipe, substantially as and for the purposes specified.

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

ALBERT S. ROBINSON.

Witnesses:

LEVI WALKER,

GEORGE H. TURBETT.