

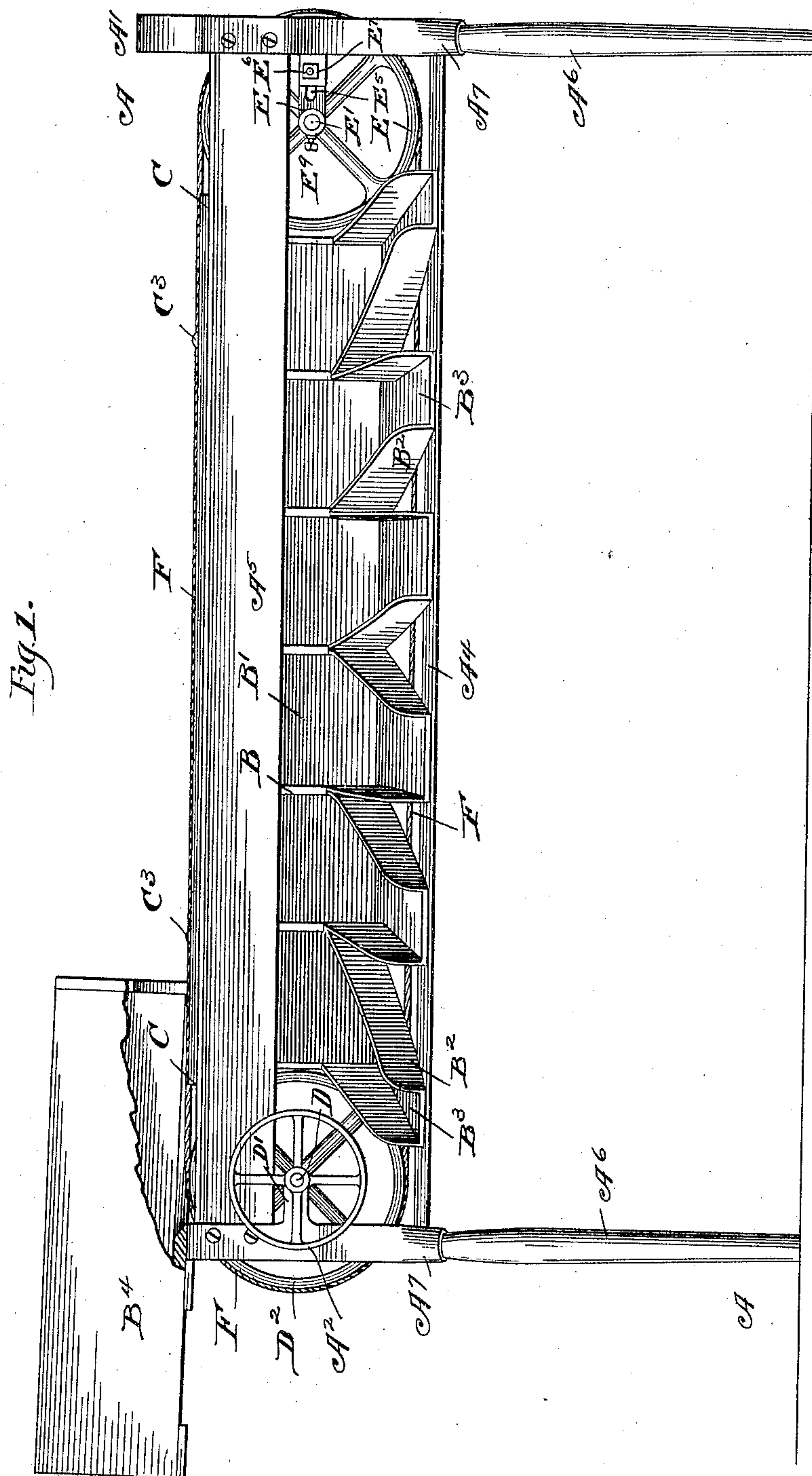
(No Model.)

2 Sheets—Sheet 1.

E. E. WOODWARD.
ORANGE SIZER.

No. 466,817.

Patented Jan. 12, 1892.



Witnesses:

Fred. Berbach
J. J. Mann.

Inventor:
E. E. Woodward,
By L. L. Morrison,
Attorney.

(No Model.)

2 Sheets—Sheet 2.

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ORANGE SIZER.

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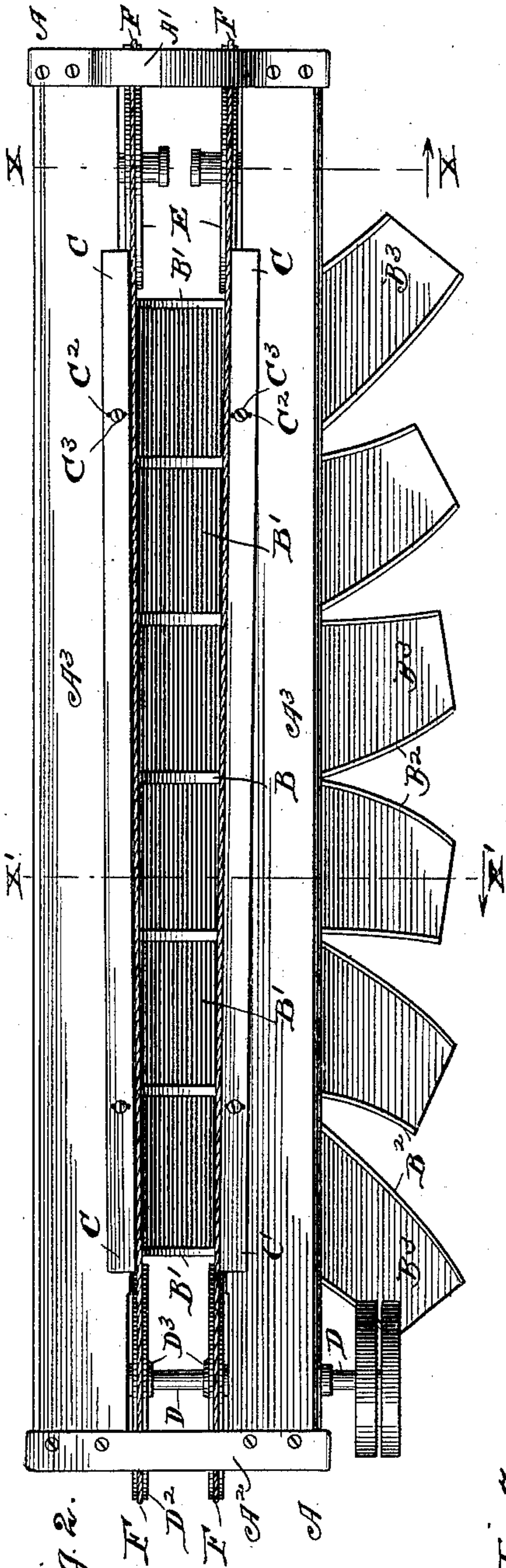


Fig. 2.

Witnesses:-

Fred Gerlach
J. Mann.

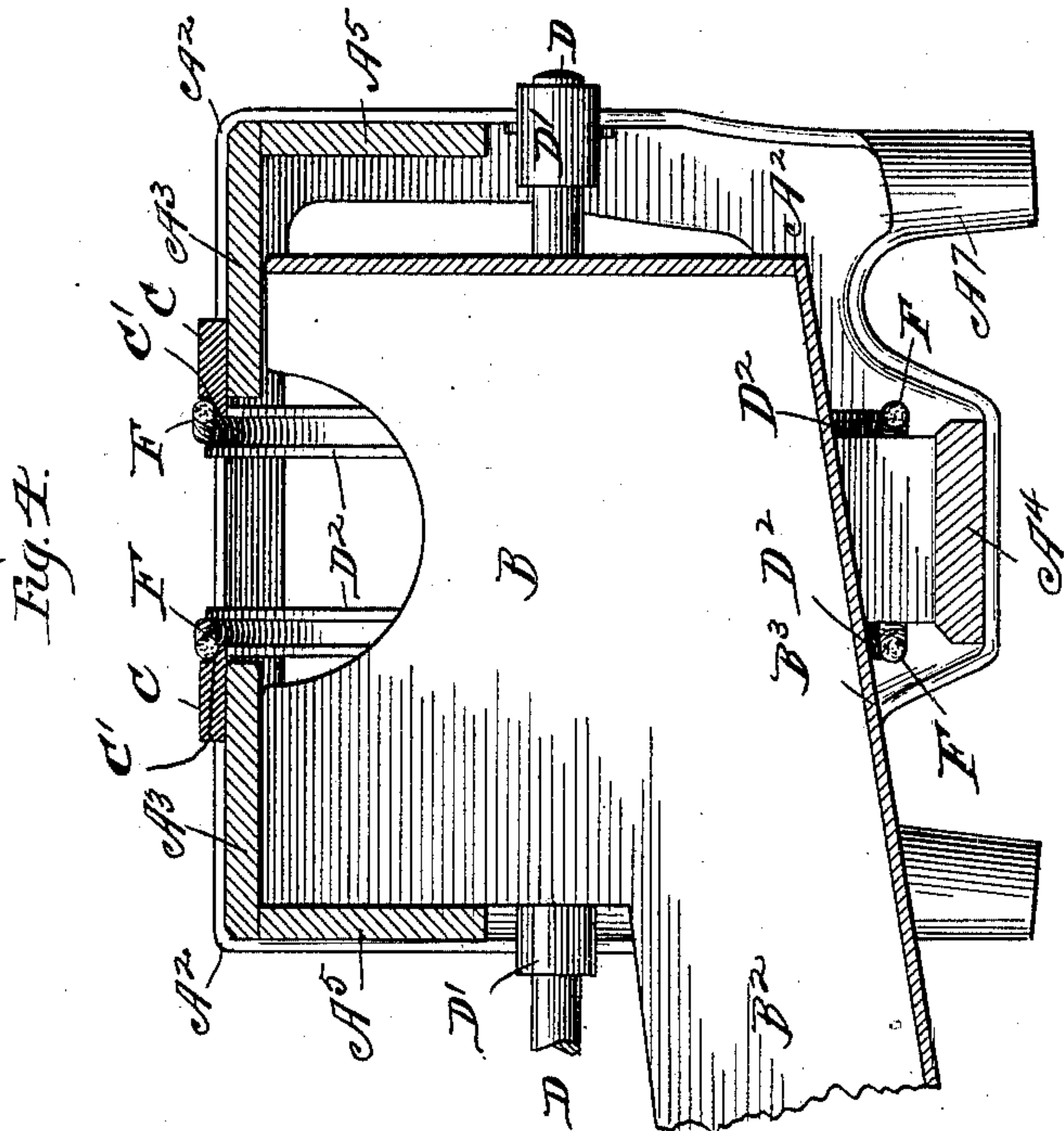


Fig. 7.

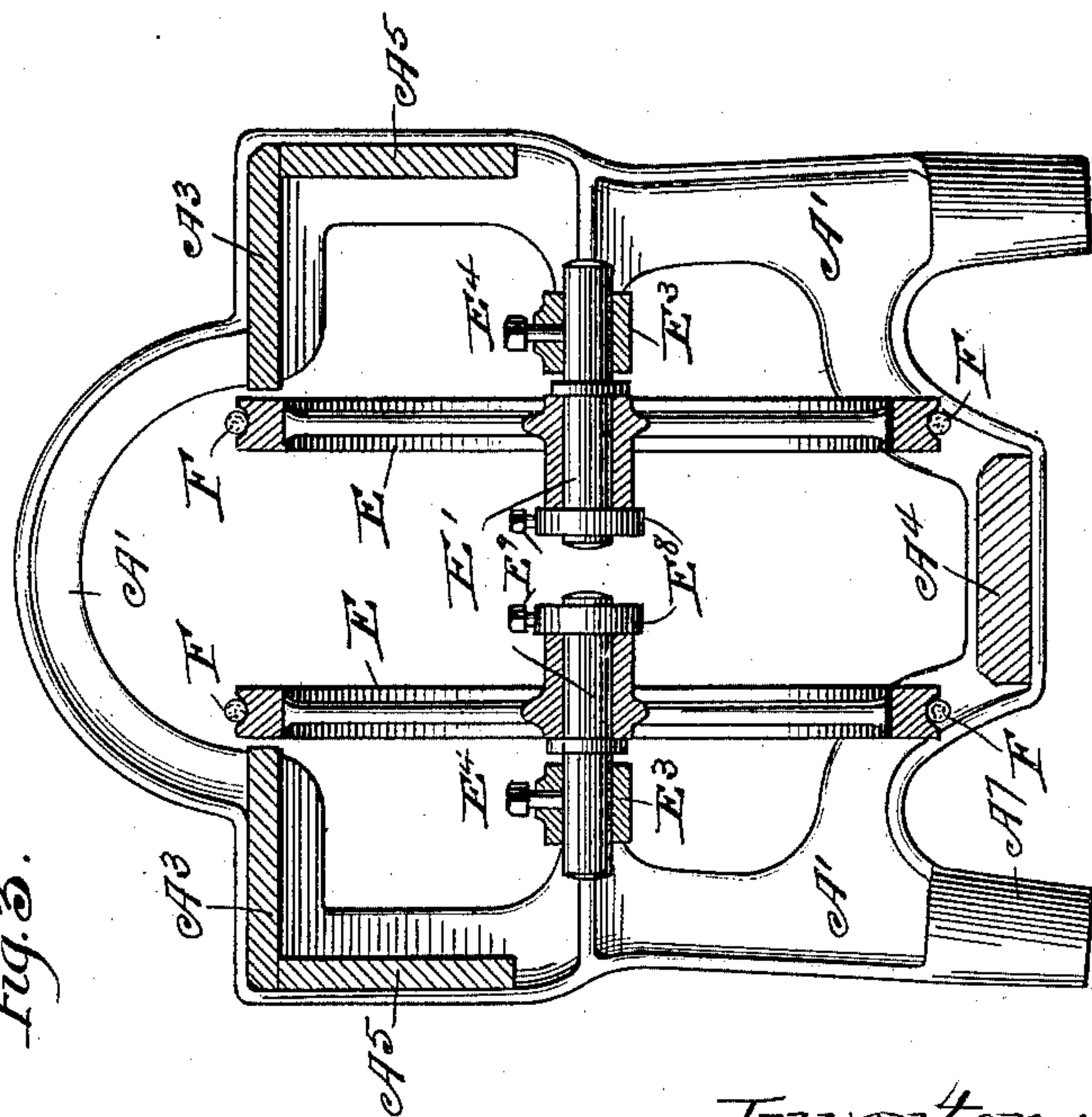


Fig. 5.

Inventor:
E. E. Woolman,

By L. L. Worthington,
Attorney.

UNITED STATES PATENT OFFICE.

ELMER E. WOODWARD, OF ROCKFORD, ILLINOIS.

ORANGE-SIZER.

SPECIFICATION forming part of Letters Patent No. 466,817, dated January 12, 1892.

Application filed July 30, 1891. Serial No. 401,180. (No model.)

To all whom it may concern:

Be it known that I, ELMER E. WOODWARD, a citizen of the United States, residing at Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Orange-Sizers, of which the following is a specification.

My invention relates to machines for sizing oranges and similarly-shaped fruit preparatory to packing them for the market; and it consists of certain new and useful features of construction and combinations of parts hereinafter described, and pointed out in the claims.

Referring to the accompanying drawings, which form a part of this specification, Figure 1 is a side elevation of a machine embodying my improvements. Fig. 2 is a top plan view of the same. Figs. 3 and 4 are vertical sections at the dotted lines X X and X' X', respectively, in Fig. 2.

Like letters of reference indicate corresponding parts throughout the several views.

A is the frame of the sizer, which is constructed, preferably, of cast-iron ends A' A², the top, bottom, and side pieces A³ A⁴ A⁵, secured thereto, and the legs A⁶, inserted into sockets A⁷ therein. The sizer is also divided by means of transverse partitions B into compartments B', which are provided with lateral outwardly-opening chutes B², having inclined bottoms B³.

B⁴ is a hopper.

C are conveyer-tracks, which I prefer to make of metal and provide with longitudinal grooves C' in or near their inner edges. The tracks C diverge from the hopper B⁴ and are laterally adjustable by means of transverse slots C² therein and screws C³, which are turned into the top pieces A³ of the sizer-frame.

D is a shaft mounted in bearings D'.

D² are peripherally-grooved pulleys mounted on the shaft D, on which they are longitudinally adjustable by means of set-screws (not shown) passing transversely through the outer ends of their hubs D³.

E are peripherally-grooved pulleys mounted on the axis E', which have longitudinal ad-

justment in the horizontal sockets E³, wherein they are secured by means of set-screws E⁴. The sockets E³ are also horizontally adjustable in the direction of the length of the sizer by means of the slots E⁵ therein and bolts and nuts E⁶ E⁷.

E⁸ E⁹ are collars and set-screws for supporting the pulleys E upon the axis E'.

F are endless conveyers connecting the peripherally-grooved pulleys D² E.

From the construction of the different parts composing the sizer it is obvious that the conveyer-tracks C, peripherally-grooved pulleys D² E, and the endless conveyers F admit of lateral coadjustment, so as to adapt the machine to be used in sizing oranges of any size. The construction and connections of the parts E³ enable the slack of the conveyers F to be readily taken up whenever required.

Power is applied to the shaft D in any desired manner.

The oranges to be sized are deposited in the hopper B⁴, whence the conveyers F carry them along the tracks C, between which they drop into the compartments B', according to their varying sizes. Thence they are carried by the chutes into separate receptacles provided for them.

These machines size oranges with the greatest accuracy and will not clog while in use.

I claim—

1. In combination, in an orange-sizer, a suitable frame, diverging conveyer-tracks laid thereon, conveyer-pulleys mounted on the frame, and endless conveyers connecting the pulleys and adapted to continuously traverse them and the tracks, substantially as and for the purpose specified.

2. In combination, in an orange-sizer, the frame, the conveyer-tracks, pulleys, and endless conveyers so mounted upon and connected with the former as to admit of lateral coadjustment, substantially as and for the purpose specified.

ELMER E. WOODWARD.

Witnesses:

L. L. MORRISON,
E. F. DOWLING.