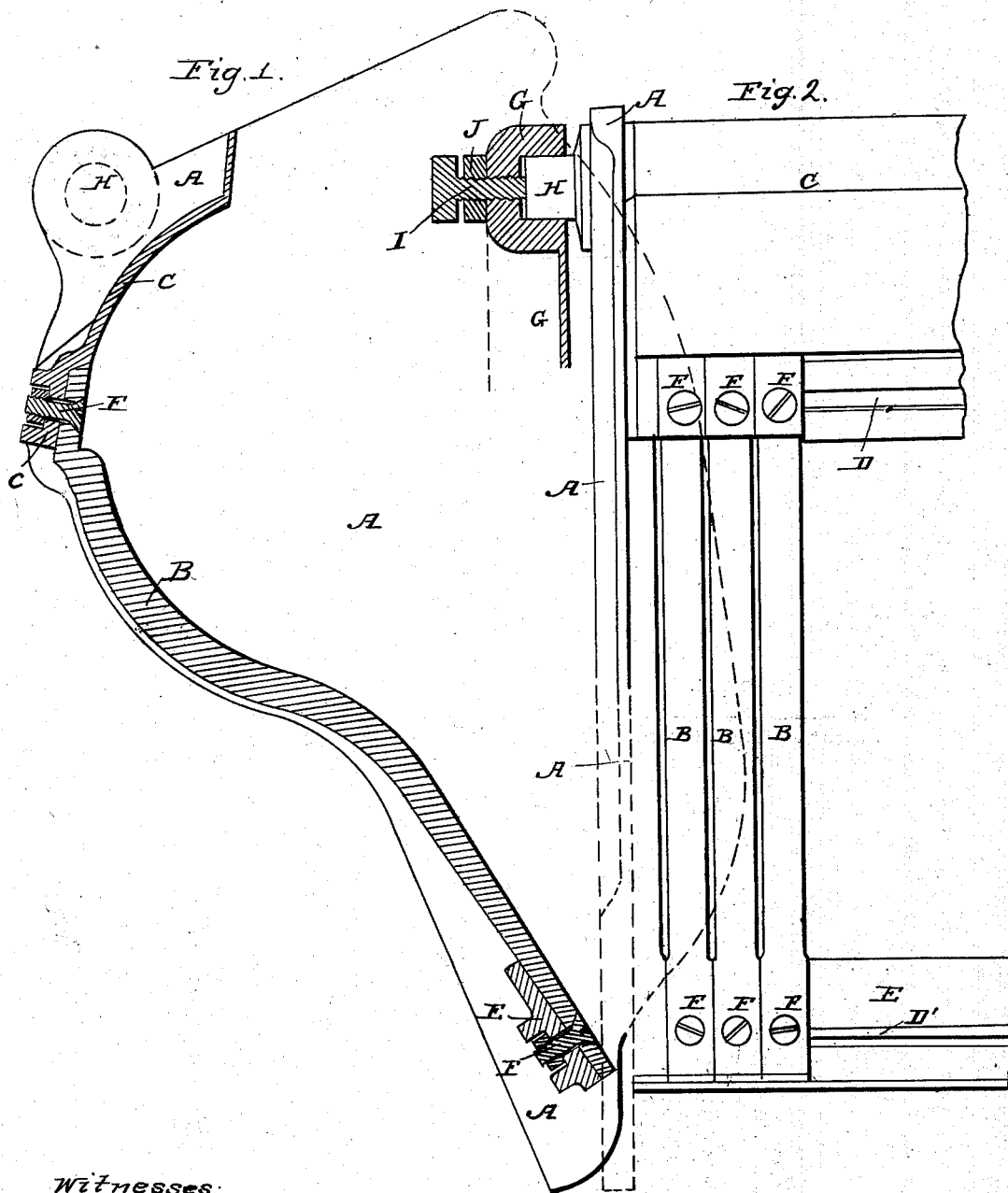


W. B. EMERY.

Cotton Gin.

No. 47,626.

Patented May 9, 1865.



Witnesses:
 George W. Emery
 W. L. H. H. H.

Inventor:
 William B. Emery

UNITED STATES PATENT OFFICE.

WILLIAM B. EMERY, OF ALBANY, NEW YORK.

IMPROVEMENT IN COTTON-GINS.

Specification forming part of Letters Patent No. 47,626, dated May 9, 1865; antedated May 5, 1865.

To all whom it may concern:

Be it known that I, WILLIAM B. EMERY, of the city and county of Albany, and State of New York, have invented an Improvement in the Construction of Cotton-Gins; and I do declare that the following is a full and exact description of the same, reference being had to the accompanying drawings.

Figure 1 is a transverse vertical section of the hopper through one of the ribs of the breast; Fig. 2, a front view of a part of the breast of the hopper, including a section of a part of the side of the gin, showing how the trunnions of the hopper enter the socket, and also showing the set-screw.

Similar letters indicate similar parts in each figure.

A is the end or head-plate of hopper; B, ribs or sections of breast of hopper; C, shield or upper part of breast, to the lower edge of which (being a slotted plate) the upper ends of the ribs are fastened; E, slotted bar across the lower part of hopper, and to which the lower ends of the ribs are fastened; D and D', slots through which the bolts pass, by which the ribs are fastened; F, bolts which fasten the ribs; G, section of a part of the side wall of the gin; H, trunnion or pivot by which the hopper is hinged to the gin; I and J, set-screw and check-nut.

The improvements are as follows: The bolts F, passing through slotted plates which extend across the breast of the gin, enable the ribs to be fitted to the saws with greater facility than is the case when each rib is fastened by a separate hole and to be adjusted individually when necessary. It also facilitates the constructing of the gin, as it does not require the saws to be set to a templet, the ribs being readily adjusted to suit any slight variation in the spacing of the saws. The slot may be

in a solid plate or bar, or it may be produced by placing two bars or plates side by side, leaving a suitable space between them.

This invention relates to gins having a wooden frame-work, as well as to those constructed wholly or partially of iron. When the hopper of the gin is wholly made of iron, the slotted plates may constitute the transverse girts or ties of the hopper at the top and bottom of the breast, while in hoppers made of wood the slotted plates may be laid along the wood girts or ties which extend across the hopper at the top and bottom of the breast, and to which the ribs are usually fastened by "wood-screws." The plates in the latter case should be so attached to the wood that they are free to expand and contract (in consequence of changes in the temperature of the atmosphere) without disturbing their fastenings; also, the hinges of the hopper consist of trunnions or pivots projecting from the head-plate of the hopper and fitting into corresponding sockets in the side wall of the gin, the sockets being provided with set-screws or other means by which the hopper may be moved to the right or left whenever all the ribs require to be moved in either direction. These sockets may be solid, or they may be provided with movable tops to facilitate the putting in or taking out of the hopper.

Having thus described the invention, what I desire to secure by Letters Patent of the United States, is—

Fastening the ribs of the breast to slotted plates or bars in the manner and for the purpose substantially as described.

WILLIAM B. EMERY.

Witnesses:

GEORGE W. EMERY,
H. S. WITBECK.