(No Model.)

S. N. BOURNE.

PICKER HOUSE FOR COTTON MILLS.

No. 433,642. Patented Aug. 5, 1890.

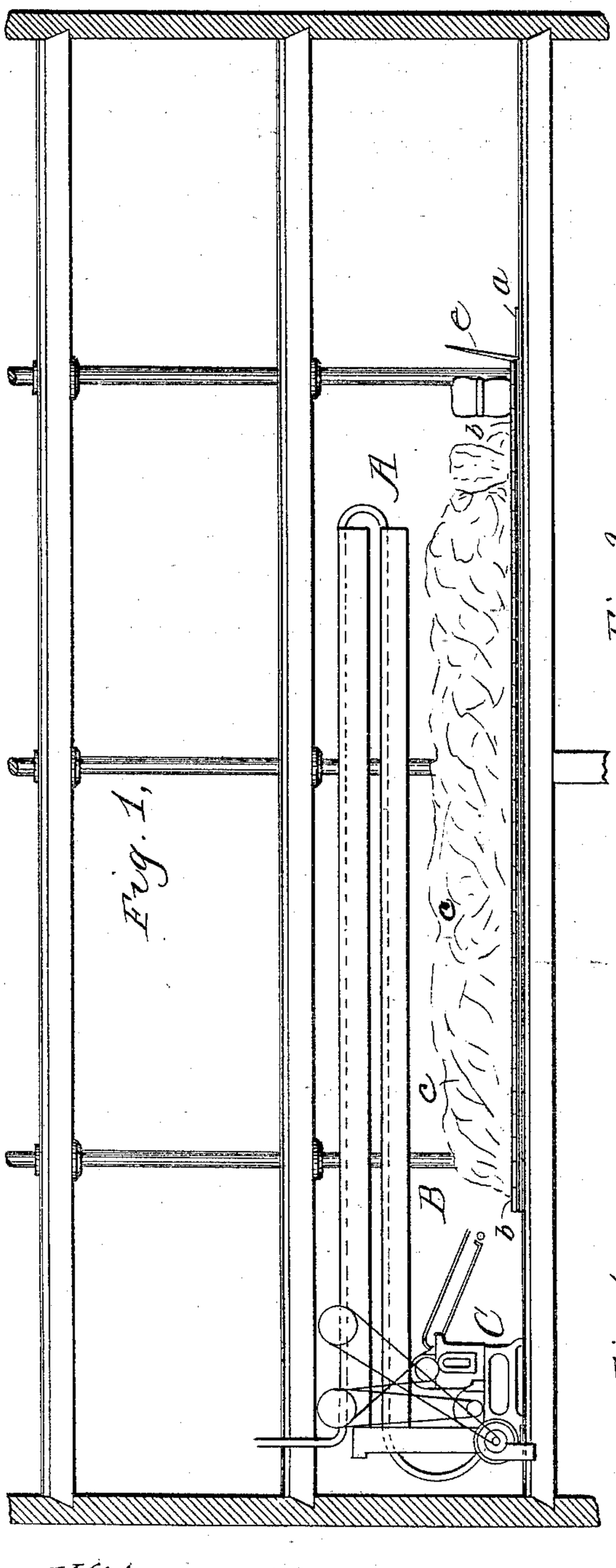

Fig. 1.

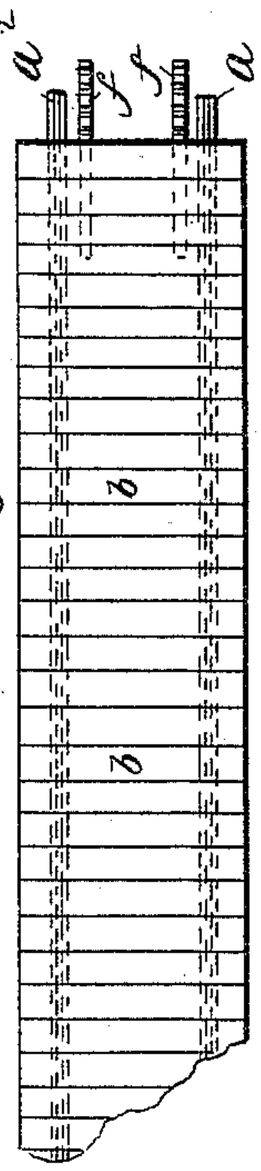

Fig. 2.

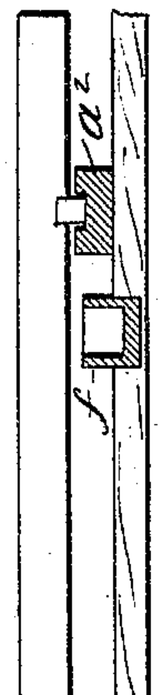

Fig. 3,

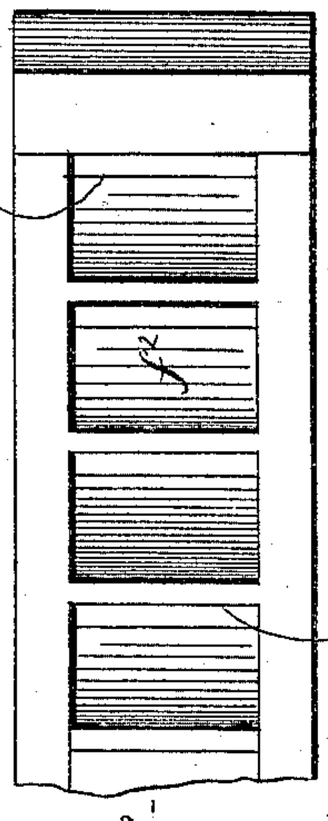

Fig. 4.

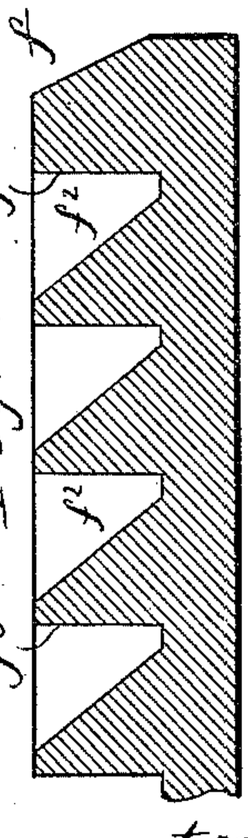

Fig. 5.

Witnesses.
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UNITED STATES PATENT OFFICE.

STEPHEN N. BOURNE, OF MANCHESTER, NEW HAMPSHIRE.

PICKER-HOUSE FOR COTTON-MILLS.

SPECIFICATION forming part of Letters Patent No. 433,642, dated August 5, 1890.

Application filed April 16, 1890. Serial No. 348,154. (No model.)

To all whom it may concern:

Be it known that I, STEPHEN N. BOURNE, of Manchester, county of Hillsborough, State of New Hampshire, have invented an Improvement in Picker-Houses for Cotton-Mills, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

My invention relates to an improvement in the apparatus employed in the picker-house of cotton-mills, or room in which the cotton is opened from the bale.

In the first treatment of cotton preparatory to its manufacture into yarn or cloth it is desirable, after the cotton-bale fastenings are removed, that the cotton should remain in a loose or unbaled condition for a considerable length of time before it is operated upon by the pickers or opening-machines, in order to give the fiber an opportunity to absorb air and expand. In the opening-rooms as now commonly used it is difficult always to keep the cotton in unbaled condition for the proper length of time, as it is often more convenient to supply a recently-unbaled lot of cotton to the opening-machines or pickers than to attain access to that which has been standing unbaled for a considerable length of time.

The object of this invention is to insure that the oldest cotton, or that which has been unbaled for the longest time, shall always be supplied to the machine; or, in other words, that cotton which is just removed from the bale shall be allowed to stand and season for a sufficient period of time before it is supplied to the machines. In order to accomplish this result in accordance with the present invention, the opening-room is provided with a movable sectional platform or carriage extending toward the pickers or opening-machines, on which platform the loose cotton is piled, the bales being always unfastened at the end of the platform remote from the machines, and the entire platform with the pile of loose cotton upon it being moved from time to time toward the machines in proportion as the cotton is removed from the pile and supplied to the machines. In proportion as the carrier is fed forward and the pile of cotton is removed from its forward end sections of the carriage are taken up at the forward end and carried around and applied to the rear end, so that the carriage remains of substantially constant length and always in about the same position, although traveling forward from time to time toward the machines, and in this manner a pile of cotton is always standing, fresh cotton being added from the bales at one end of said pile while the loose cotton is being taken from the other end of the pile and supplied to the machines, and all portions of the cotton remain in a loose condition exposed to the air and seasoning during the length of time that is required to use up an amount of cotton equal to what is in the pile at any time.

In the accompanying drawings, Figure 1 is a longitudinal section of a portion of a picker-house embodying this invention; Fig. 2, a plan view of the movable platform and means for advancing the same; Fig. 3, an end elevation of said platform on a larger scale; and Figs. 4 and 5, a plan view and longitudinal section, respectively, of a portion of the fulcrum-bar used for advancing the platform.

The portion of the picker-house that is to be provided with the appliances forming the subject of this invention has its floor provided with guideways or rails a a^2, extending from a point A, preferably near where the baled cotton is stored or housed, to a point B near the usual opening-machines or pickers C, by which the loose or unbaled cotton is opened and the dust or heavier impurities removed in the usual manner. Upon said rails a a^2 are supported sections b, which may be pieces of plank, and which together constitute a carriage or platform upon which the pile c of loose cotton is supported, the bales of cotton being opened at or near the rear end of said platform A, as shown, and the loose cotton from the bales being piled up on the platform against that in advance of it. The platform should be of sufficient length to support a pile c of loose cotton that will supply the corresponding machines or pickers C for a number of days, or for the length of time which is found in practice to be sufficient to thoroughly season the cotton in its loose condition, and as the cotton is always removed

from the forward end of the pile at B to be supplied to the machines it will be seen that the cotton which is added to the pile at A will not be supplied to the machines until the entire pile in advance of it has been used up.

As the cotton is being constantly withdrawn from one end of the pile and added at the other end, it is necessary that the entire pile should be moved bodily from the latter toward the former end from time to time in proportion as the cotton is used and the pile added to. In order to accomplish this result, the entire platform *b*, with the pile of cotton upon it, is moved forward from time to time in proportion as the cotton is taken away at the end B, and as a convenient means for moving the said platform and mass of cotton upon it, which may amount to several tons, the rear end of the platform may be acted upon by levers *e*—one near each side—suitable fulcrum-supports being provided for the lower ends of said levers, which may be in the form best shown in Figs. 4 and 5. The said fulcrum-bars *f* may be made of iron castings securely fastened to the floor of the building and provided at their upper surfaces with pockets or recesses f^2, forming projections or shoulders f^3 to receive the lower ends of the levers *e*, the said shoulders being so placed lengthwise of the fulcrum-bars that one movement of the levers *e*—such as can be naturally and easily produced by the operator—advances the platform a distance equal to that between two successive fulcrum-shoulders, so that by several such movements of the levers, they being engaged at each successive movement with a fulcrum-shoulder in advance of the one previously engaged, the said platform can be moved ahead as much as required, it being necessary only to move it a distance about equal to the width of one or two of the platform-sections *b* at each operation.

With the apparatus described two men operating two of the levers *e* can easily advance the platform and the pile of cotton upon it. When the cotton has been removed from the forward end at B sufficiently to uncover one or more of the platform-sections *b*, the latter are taken up from the rails and carried around and applied to the rails at the rear end A, so that the platform, although constantly advancing, remains as a whole in about the same position at all times and remains of about the same length.

The invention is not limited to the specific means represented for actuating the platform in its sliding movement, as other devices might be employed; but the fulcrum-pieces and levers shown are simple, inexpensive, and efficient.

I claim—

1. The herein-described improvement in apparatus employed in picker-rooms of cotton-mills, comprising a movable sectional platform extending from the point at which the cotton is unbaled to the point at which the cotton is supplied to the opening-machines, substantially as described.

2. The combination of the guide-rails *a* a^2 with the movable platform-sections *b* and the fulcrum-bars *f*, fixed near the rear ends of said rails, substantially as and for the purpose described.

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

STEPHEN N. BOURNE.

Witnesses:
JOS. R. FRADD,
J. F. HOLMES.