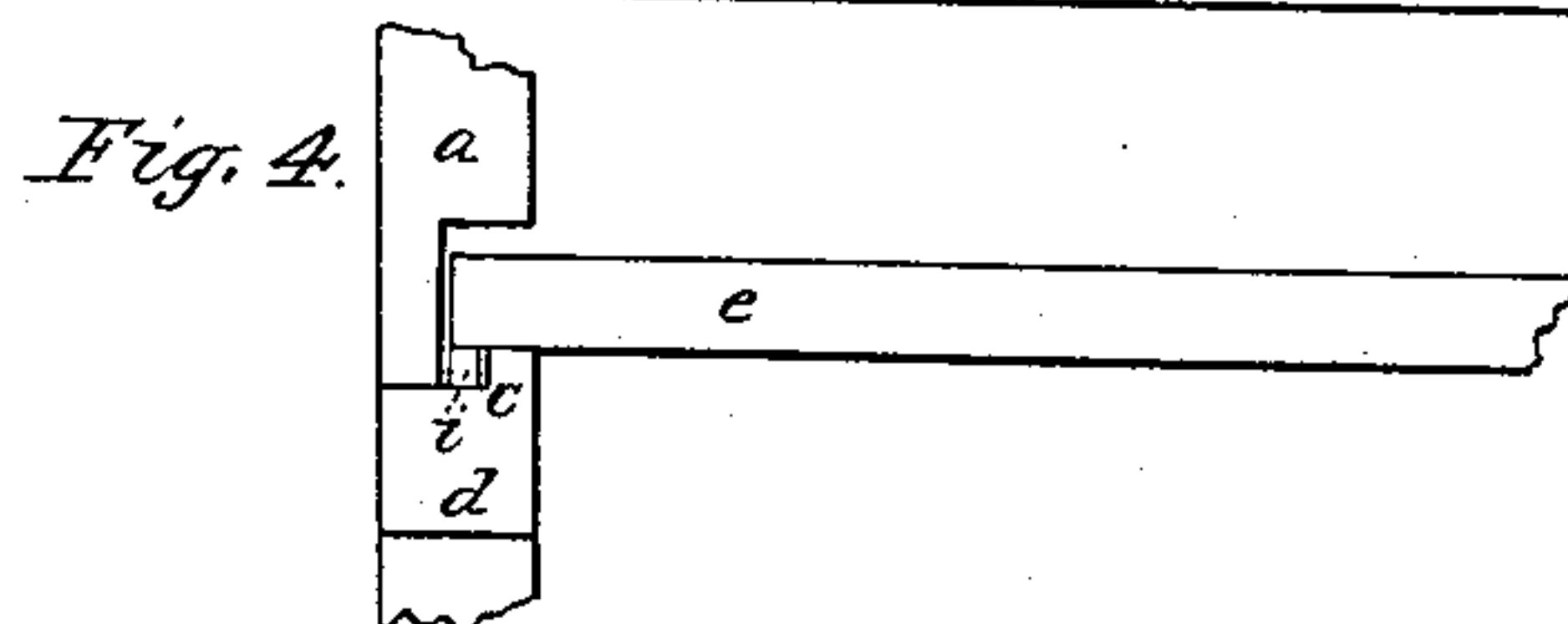
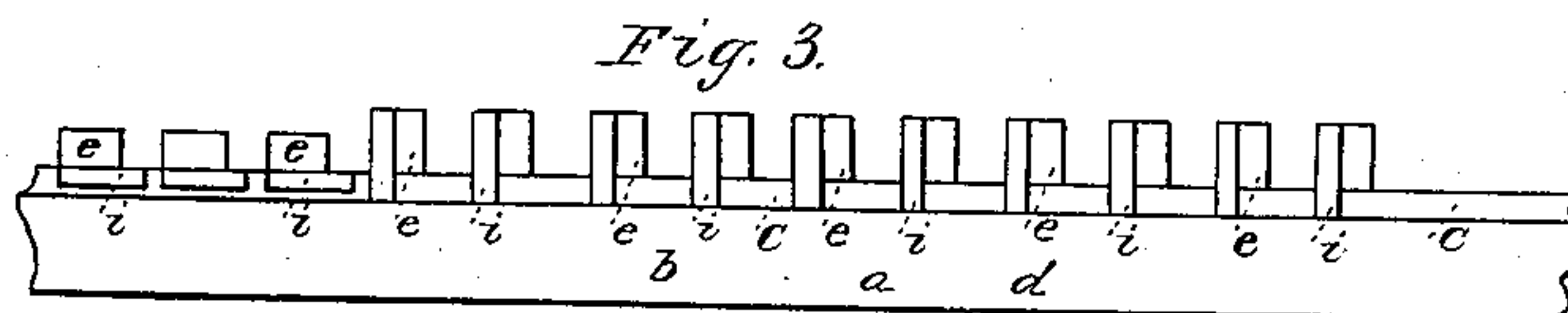
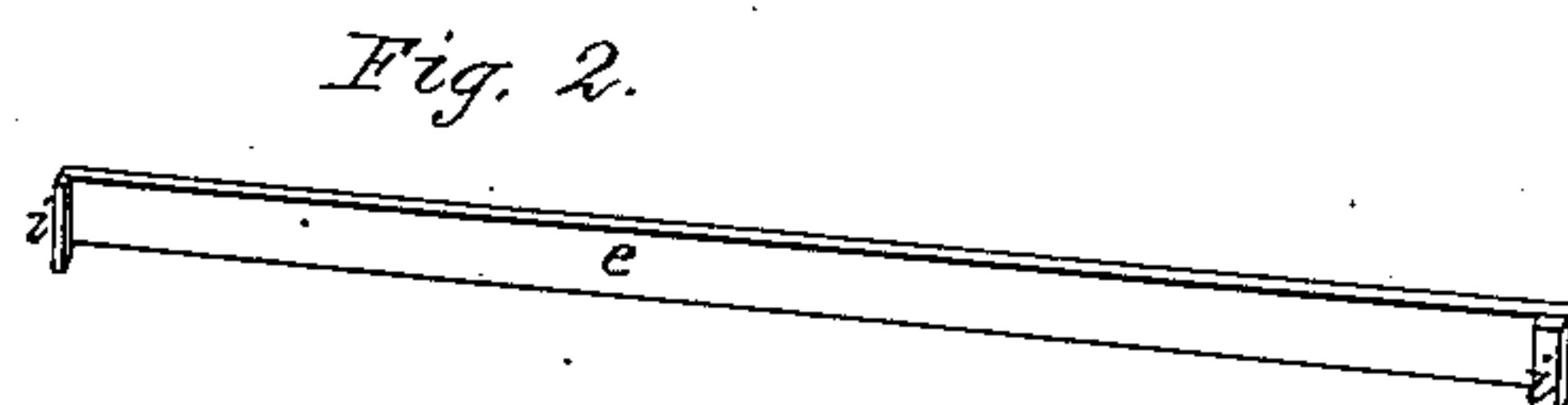
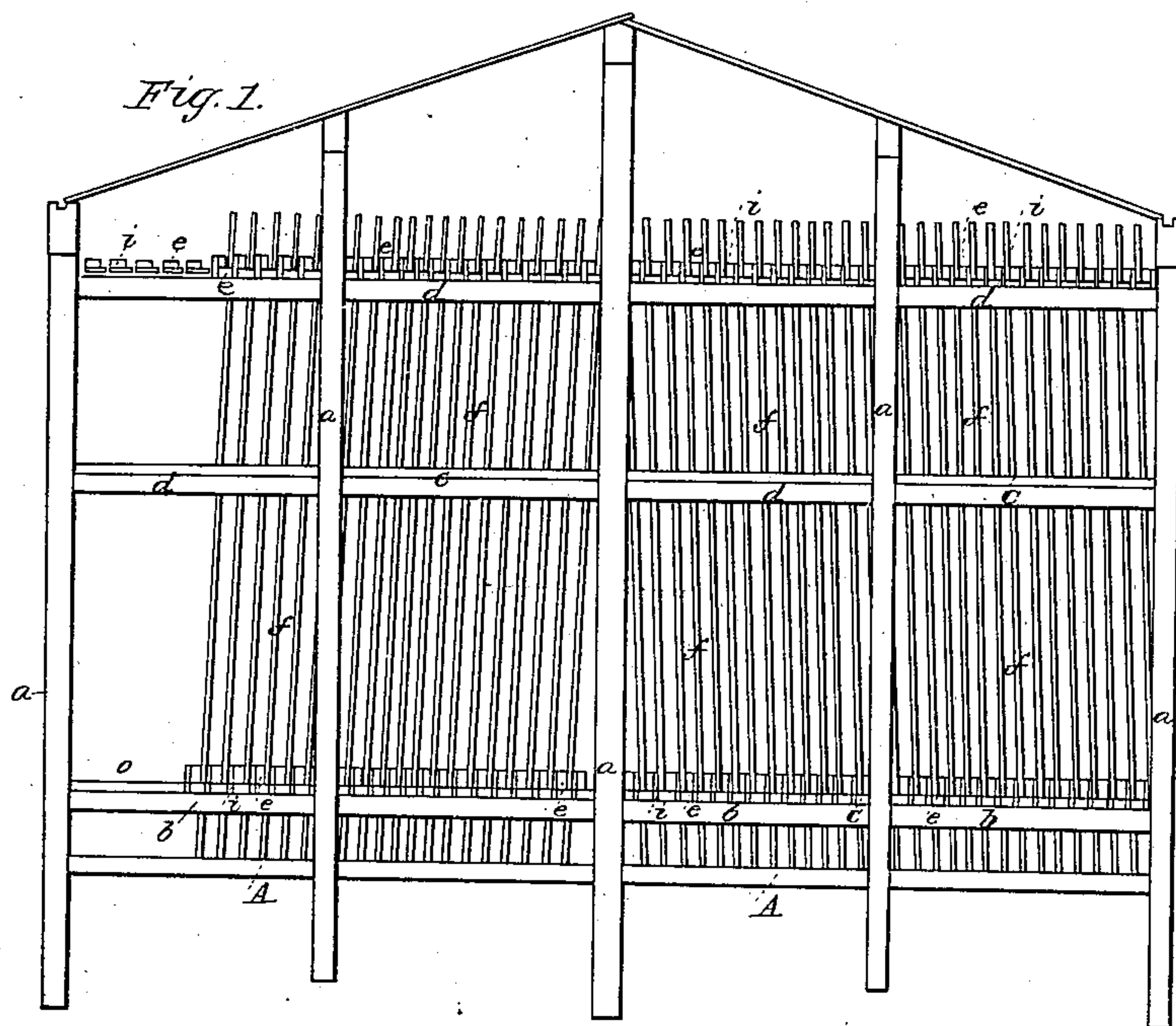


No. 81,074.

PATENTED AUG. 18, 1868.

J. DUBOIS.
LUMBER DRIER.

3 SHEETS—SHEET 1.



Witnesses.
J. B. Wadsworth
Geo. C. Green

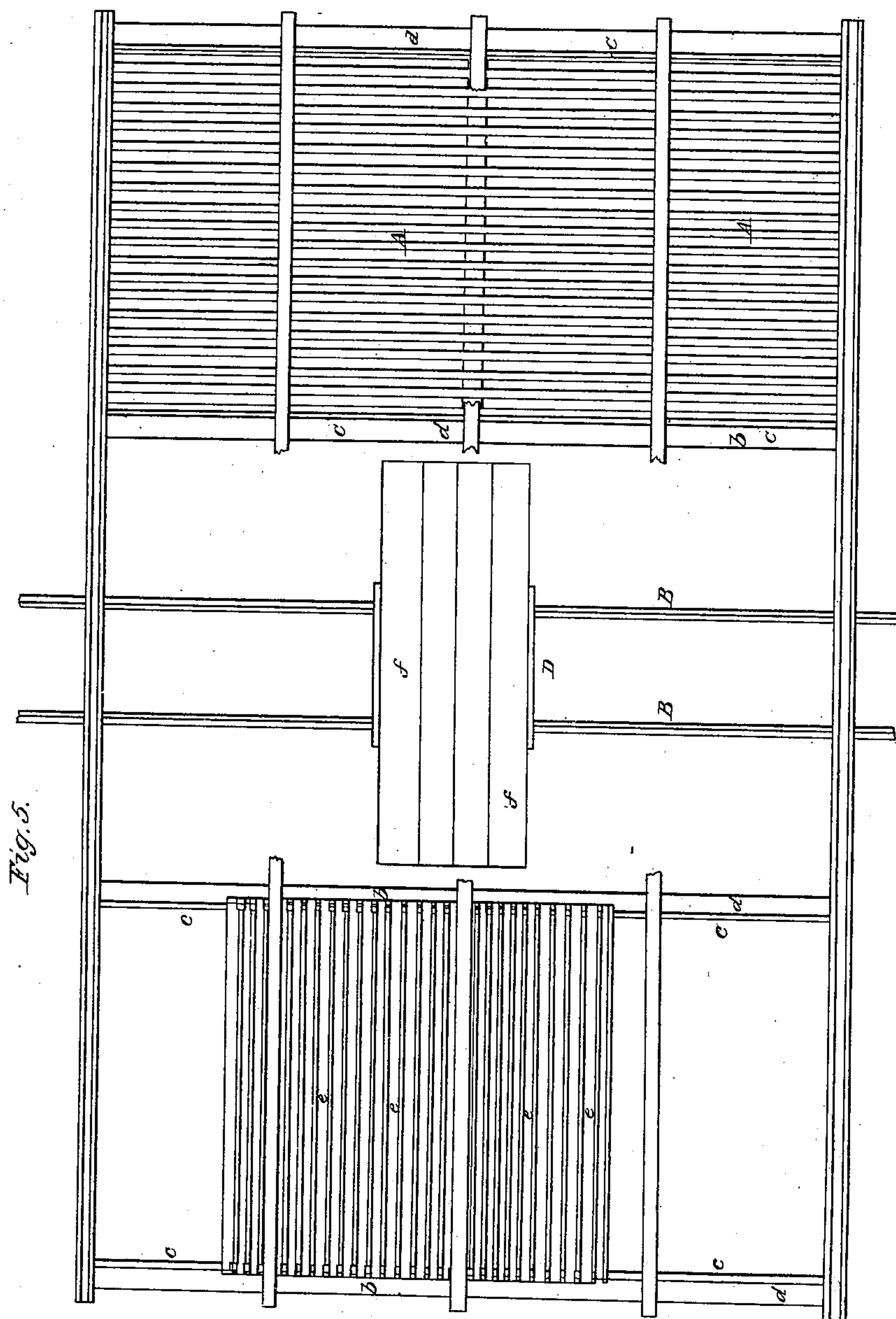
Inventor:
John Du Bois

No. 81,074.

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J. DUBOIS.
LUMBER DRIER.

3 SHEETS—SHEET 2.



Witnesses:
J. M. Woodruff
Geo. Green

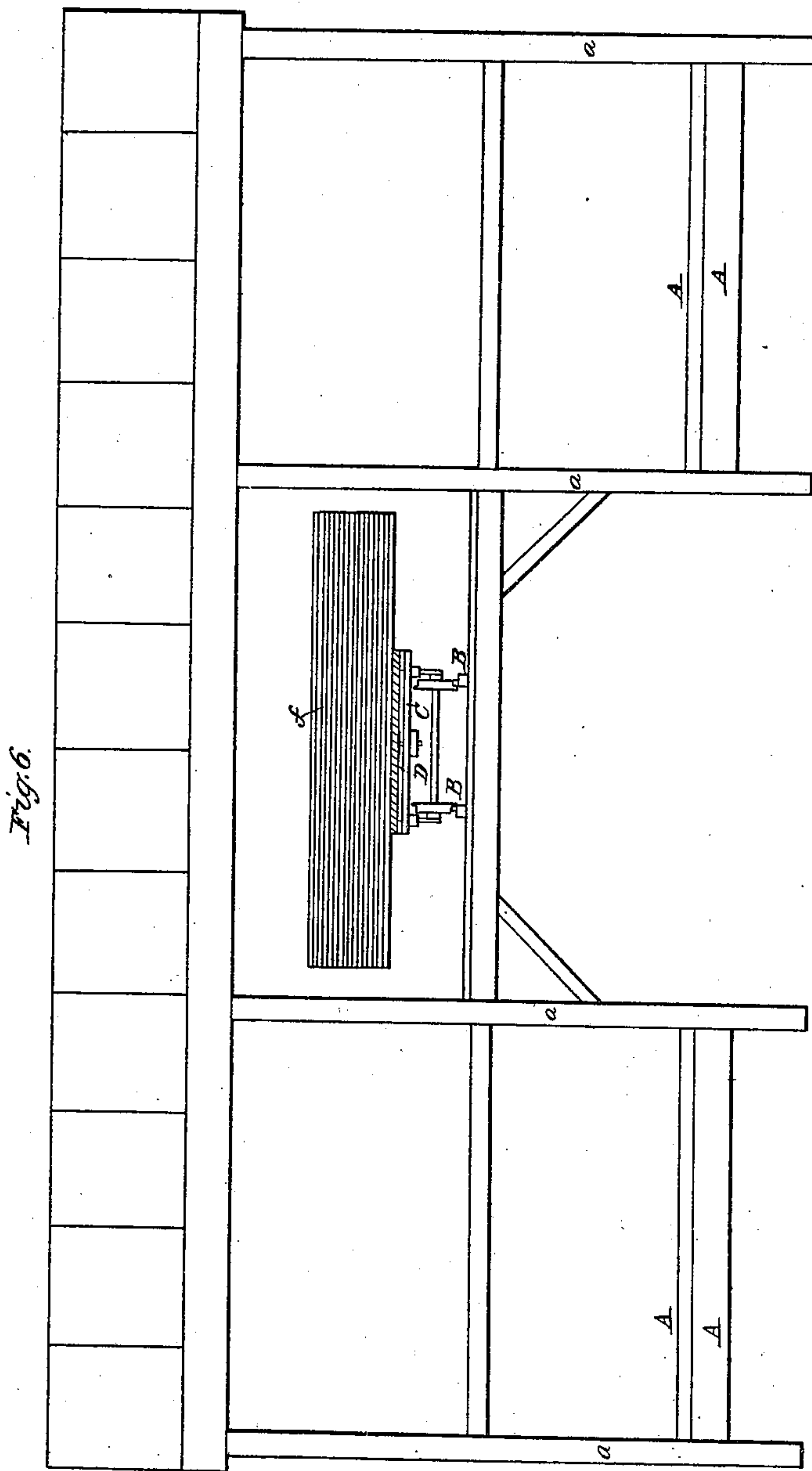
Inventor:
John Du Bois

No. 81,074.

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J. DUBOIS.
LUMBER DRIER.

3 SHEETS—SHEET 3.



Witnesses.
J. B. Woodruff
Geo. Green

Inventor.
John DuBois.

United States Patent Office.

JOHN DU BOIS, OF WILLIAMSPORT, PENNSYLVANIA.

Letters Patent No. 81,074, dated August 18, 1868.

IMPROVEMENT IN LUMBER-DRIERS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOHN DU BOIS, of Williamsport, in the county of Lycoming, in the State of Pennsylvania, have invented certain new and useful Improvements in Drying-Sheds, and the Method of Sticking Lumber for Drying and Seasoning; and the following is a full, clear, and exact description of the same, reference being had to the drawings accompanying this specification, and forming a part of the same, in which—

Figure 1, Plate I, represents an end view of a drying-shed, on my plan, for a new method of sticking lumber for drying and seasoning.

Figure 2 shows a view of one of the strips or sticks to be placed between the rows of plank.

Figure 3 shows an end view of a series of the strips, resting on the ribbed girts of the frame.

Figure 4 is a broken-off section of a strip, with the cleat across the end, resting on the girt, thereby forming a support to hold the strip to its place.

Figure 5, Plate II, represents a ground plan of one of the double sections of my improved plan of constructing sheds for seasoning lumber, showing the elevated track, running through the central portion of the sheds, for carrying in and removing the lumber.

Figure 6, Plate III, represents an open side elevation of the double drying-shed, showing a truck on the track, the platform being so constructed as to swivel round, and turn the load of lumber across the track, to be taken off and stuck in each section on end for seasoning.

The object of my invention is to drain the lumber of the sap and moisture, to prevent its staining, and to facilitate the drying, and at the same time to allow the circulation of air to come in contact with every portion of the surface of both sides of the plank or boards, which is not the case with lumber stuck for seasoning by any other method known or used.

In most cases, where lumber is stuck for seasoning or drying, two or more timbers are laid down parallel to each other, on which one course of plank, boards, scantling, or joist is laid. Upon them and across, a single piece of lumber, directly over each timber, is laid, and another course of lumber laid upon them, and so on, in succession, until the pile is finished ready for the roofing. Then a foundation is made upon the pile, by laying several pieces of lumber, one piece upon the other, at one end of the pile, and one at the other, and sufficient height at the middle to bring the tops of the piles in a line, upon which two or more courses of boards are laid loose, and breaking joints, thereby forming a temporary roof to shelter the pile, causing great loss in the damage of the roof-boards in each pile, which are exposed to the weather, and generally not sufficient to protect the lumber from storms, and the entire inability to dry the lumber, where the cross-boards are laid one above the other on the pile, causing a solid body, from the great weight of lumber in the pile, which entirely excludes the air from circulating, and retaining the moisture, causing the lumber to rot before it can season. And in moist, warm weather, it is very liable to stain all of the sap-boards, and when they are used for stripping, generally makes a dark and decayed surface across each board on which it lies, thereby reducing them in value materially.

With my invention, those difficulties are almost entirely overcome, as the lumber stands on its end, and the strips used are narrow and dry, and no weight resting on them to prevent the free circulation of the air, and allowing the water and moisture in the lumber to descend through the pores of the wood, and thereby causing it to dry rapidly, and prevent the danger of stains and decay; and also, by permanently roofing, I carry the water all off from the piles, and save all the losses caused by the damage on lumber used for temporary roofing.

In order that others may be enabled to construct and use my improved buildings and method of sticking lumber for drying and seasoning, I will describe them more fully, referring to the drawings, and to the letters marked thereon.

I erect frame buildings or drying-sheds, of any desired dimensions, the posts *a a a a* being of sufficient length to admit of the grated floors *A A* being elevated a few feet from the ground, they being made of slats, and quite open, to admit the free circulation of air up through the floor. A short distance above the plane of

the slat or grated floors A A, I place, on the inside of the posts *a a a*, girts *b b b*, having a ribbed edge, *c*, on the inside, and at suitable distances above. To accommodate the various lengths of lumber, I place two or more rows of girts or string-pieces *d d* on two sides of each compartment or floors for containing the lumber, the girts or stringers *d d* also having raised ribs *e e*, the same as the lower girts *b b*. The ribs or raised edges of the girts are for the purpose of supporting the strips or stickers *e e e e*, and allow them to be moved along on the girts, as the plank or boards *f f f f* are set up in series on end. The stickers *e e e e* are made of narrow strips of board, of sufficient length to reach across the whole width of the drying-floor A, extending over the ribs *e e* on the girts *b b*. On one-side of each end of the stickers are secured cleats *i i i*, which are as wide and project on one side as far as the ribs *e e* are above the rabbet in the edge of the girts *d d*. The cleats *i i i* effectually prevent the strips or stickers from falling off the girts as they are being moved in the process of setting in or taking out the lumber.

The drying-sheds are designed to be built double, with a space between of sufficient width for an elevated railroad-track, B B, on which a car, C, having a swivel-platform, D, may be loaded with lumber, and run in under the shed, when the load can be swivelled round, the end brought to the side, where it is in a convenient position for unloading and setting the lumber on end on the grated or open floor, and stuck up, by having a strip, *e*, both at the top and bottom, placed between each series of plank or boards, as seen in fig. 1, and when the seasoned lumber is to be taken out, a swivel-platform car can be placed where the lumber to be removed is convenient for loading, and easily taken up, and the car moved along as required, so that there need be no carrying of lumber any distance.

A continuation of drying-sheds or buildings, with the elevated car-track, may be multiplied indefinitely, so that choice lumber can be seasoned in the most perfect manner, and handled with the greatest ease and facility, the operation being only to slide it off the car when it nearly balances, so that it is set on end. The strips *e* are moved up to it, and so on, until the section is filled, and the lumber being a little inclined towards the centre, so that the sections will stand as seen in fig. 1.

By the arrangement of buildings or drying and seasoning-sheds, constructed in the manner as above described, and an elevated car-track and cars, so constructed that the top or platform will turn on its centre, or swivel round, so that the ends of the lumber loaded on them can be brought to any desired place to be taken off and be stuck on end, it will readily be seen, and has been practically demonstrated, that two men can handle and stick up more lumber in one day than six men can do in the same time when put up in piles, as has been the practice for sticking lumber in the yards or sheds for drying heretofore; and the other advantages are so many and so obvious, that it seems strange that such a course has not been discovered, and the mode of setting lumber on end for drying universally adopted.

Lumber standing on end will drain itself of sap and moisture, and season in about one-half of the time that it will while stuck up in piles, and much more uniformly than it possibly can be seasoned with the weight of the pile pressing the cleats on to portions of it; and if storms should drive in so as to wet some of the outer portions of it, the lumber being on end, will not retain the moisture, but dry off immediately, and the seasoning process go on rapidly. And another great advantage is, that a small quantity can be selected and taken out of any of the sections of the shed, without removing any of the other lumber, which cannot be done from piles stuck up for seasoning in the ordinary manner.

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

1. The arrangement of drying-sheds, provided with grated or open floors for sticking lumber standing on end, it being held upright by series of strips or stickers, *e e e*, resting on the girts *b b* on plates *d d*, substantially in the manner as described for the purposes herein set forth.
2. The rib or raised portion on the inner edge of the girts, in combination with the cleats *i i* on the ends of the strips or stickers *e e e*, substantially as and for the purposes herein specified.
3. The application of the car C with the turn-table frame thereon, and elevated track B, when used in combination with the drying-sheds, constructed as herein set forth.

In testimony whereof, I hereunto subscribe my name in the presence of—

JOHN DU BOIS.

Witnesses:

J. B. WOODRUFF,
GEO. C. GREENE.