(No Model.)

J. C. BOYLE.

MEANS FOR PILING UP TIERCES, BARRELS, &c.

No. 458,515. Patented Aug. 25, 1891.

Fig. 1.

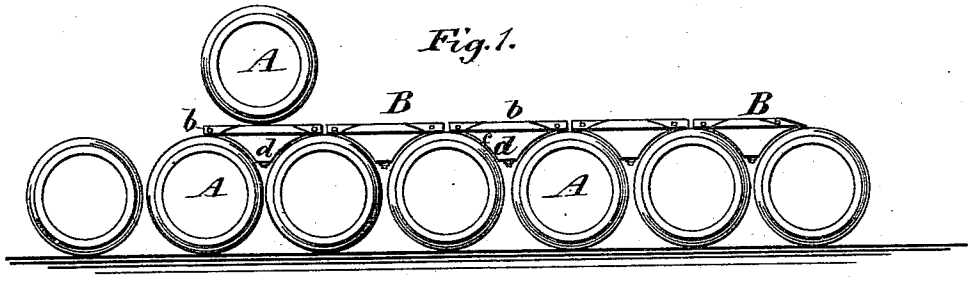


Fig. 2.

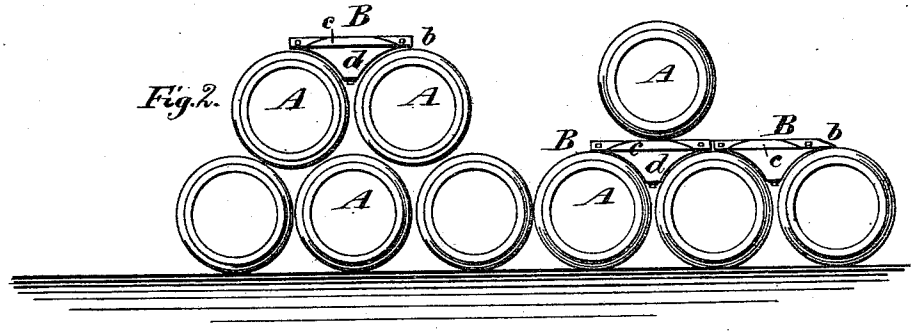


Fig. 3.

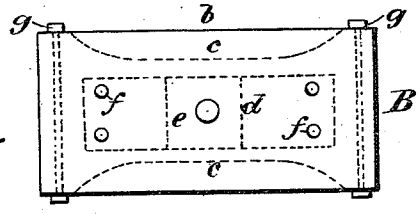


Fig. 4.

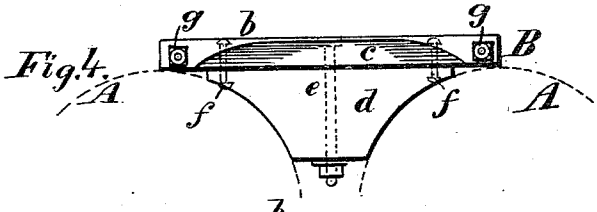


Fig 5

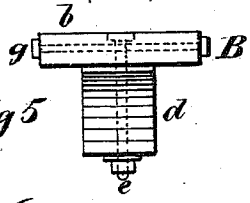
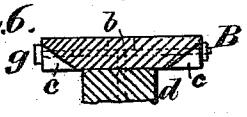


Fig. 6.



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JAMES C. BOYLE, OF OMAHA, NEBRASKA.

MEANS FOR PILING UP TIERCES, BARRELS, &c.

SPECIFICATION forming part of Letters Patent No. 458,515, dated August 25, 1891.

Application filed April 16, 1891. Serial No. 389,159. (No model.)

To all whom it may concern:

Be it known that I, JAMES C. BOYLE, of Omaha, in the county of Douglas and State of Nebraska, have invented a new and useful Improvement in Means for Piling Up Tierces, Barrels, and other Like Packages, of which the following is a full, clear, and exact description.

This invention relates to means for piling up tierces, barrels, and other like packages one upon the other in any number of tiers, such as meat-tierces, pork-barrels, oil-barrels, sugar-barrels, and other barrels, casks, or tierces containing or designed to contain different articles or materials, including apples, sirups, potatoes, and so forth. The means ordinarily employed for this purpose are a series of continuous plain planks, generally from eight to twelve feet long, placed in succession upon one tier after the other in the pile, for the purpose of rolling the tierces or barrels on or over them to their places between or in proper position relatively to the tierces or barrels in the tier beneath. When such planks are used, after one tierce or barrel is thrown up and rolled to its place, it is necessary, in order to throw up and roll another or succeeding tierce or barrel to its place in the same tier, to wait till the first tierce or barrel is off the plank, so as to admit of the plank being pulled back a sufficient distance to make room for the succeeding tierce or barrel to drop into its place. This is not only a laborious, but slow and costly method of piling up tierces or barrels and the like in tiers, the workmen standing idle much of the time, inasmuch as every time a tierce or barrel is thrown up the plank has to be pulled back, and this cannot be done till the tierce or barrel is rolled off the plank.

The object of my invention is to obviate these defects and to save both time, labor, and money.

The invention consists of a sectionally-constructed plank or series of skids, being fractional portions of a plank of novel construction, substantially as hereinafter described, and more particularly pointed out in the claims, the same to be used in the place of a continuous plank for the purpose and in the manner set forth.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 represents a longitudinal view in elevation of my invention as applied to the placing of a tierce on a lower tier of tierces, and Fig. 2 is a similar view with my invention as applied or adapted to place tierces upon a first and second series of tiers. Fig. 3 is a plan view of one of the series of skids or fractional portions of my improved piling-plank; Fig. 4, a side elevation of the same; Fig. 5, an end view thereof, and Fig. 6 a transverse vertical section thereof.

A A indicates a number of tierces designed to be thrown up and placed one upon or over the other in any number of tiers, the tierces in each one of the upper tiers being designed to rest on and between two of the tierces in the tier immediately beneath. To do this I use a series of skids B or fractional portions of a barrel-rolling plank, which are constructed to adapt themselves to sit down between each two adjacent tierces or barrels in the same tier. These skids are each constructed of an upper board *b* and of a leg-piece *d*, shaped to fit down in between each two adjacent tierces in the same tier, said leg or leg-piece being of tapering curvilinear construction on its sides to hug or lie close to the tierces and keep the top or board *b* of the skid at its proper height and level. These leg-pieces may be secured to the board *b* by a central countersunk bolt *e*, secured by nuts below and end rivets or screws *f*, also bolts *g* may be passed crosswise through the board *b* at its ends to stiffen it and prevent it from breaking under the rough usage to which the skid is exposed.

In using the skids—say for piling up tierces in tiers—a number of these skids B are first arranged on the lower tier in line and position between the tierces A A, lying side by side one against the other, except in the case of the two last tierces, which require no skid between them, as shown at the left in Fig. 1. To build up a second tier of tierces, first one tierce is rolled along over these skids on the tier below, that form a continuous plankway, as it were, till such upper tierce drops into its place between the two last tierces in the lower tier, and so on in succession for each additional tierce in the second tier, always remov-

ing the last skid in the row after a tierce has been rolled off it to take its place between adjacent tierces in the tier below, and these skids as they are separately removed are then placed in position between each two of the tierces in the second tier in succession, (see Fig. 2,) so as to be out of the way and form a plankway, if needed, for building up a third tier of tierces, and so on for any number of tiers. This transposing of the skids prepares each tier in succession, without losing time, for the reception of the tierces in the succeeding tier—as, for instance, the third tier will have its skids in position by the time the second tier of tierces is completed. The piece of plank or top board *b* of each skid is or may be hollowed out or chamfered off at its sides, as shown at *c*, to adapt the skids to lie in a crosswise position to that shown, for piling up barrels as the tierces are piled, but in a different position. These skids may be made of suitable material, size, and strength to adapt them to the particular packages they are designed to be used for in piling up in tiers, as described.

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

1. The means herein described for piling up tierces, barrels, and other like packages in tiers, which consists of a series of skids forming fractional portions of a plank to be used in rolling said packages to their places, said skids being composed of an upper board or top and an attached central leg-piece of tapering construction on its sides, as set forth.

2. The within-described skid, composed of an upper board or top hollowed out or chamfered off at its sides and having an attached central leg-piece of tapering construction on its sides in a plane at right angles to the chamfered-off sides of the upper board or top, essentially as specified.

3. A skid having its upper board or top braced by cross-bolts at its ends and united with its leg-piece by a countersunk bolt and end screws or rivets, substantially as herein described.

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