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WOOL, COTTON, RAG, AND THE LIKE DRYING MACHINE

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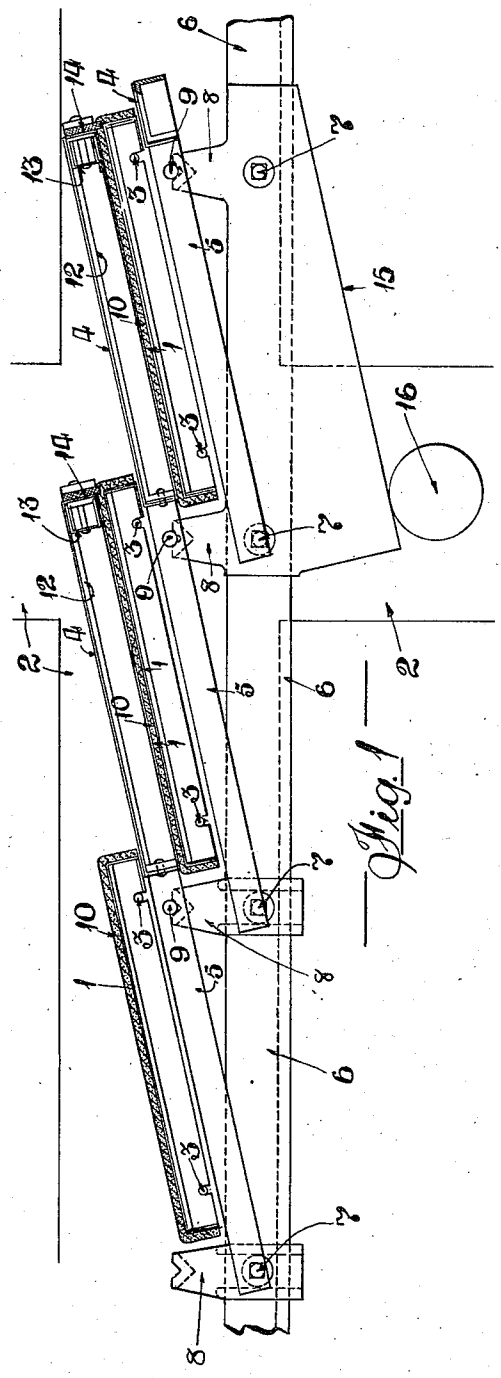


Fig. 1

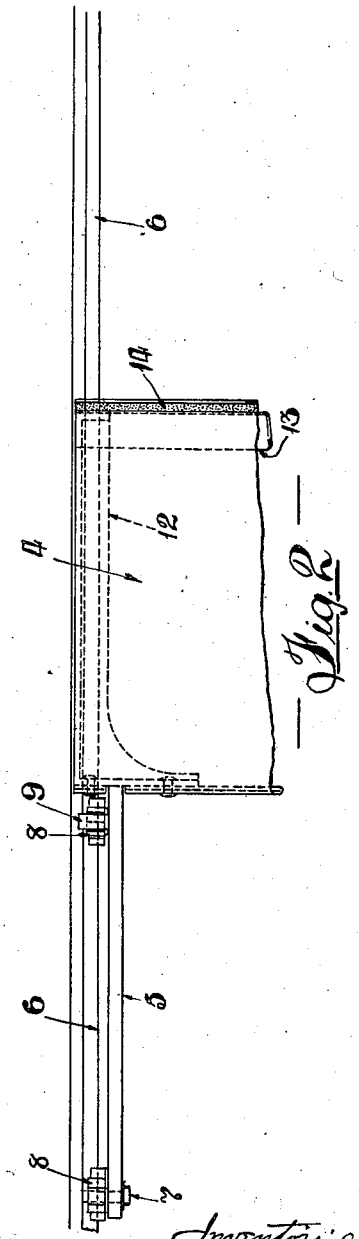


Fig. 2

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UNITED STATES PATENT OFFICE.

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WOOL, COTTON, RAG, AND THE LIKE DRYING MACHINE.

Application filed July 8, 1926, Serial No. 121,165, and in Great Britain April 30, 1926.

This invention relates to drying apparatus for loose material such as wool, cotton, rags or the like, and more particularly to apparatus or machines of the kind comprising one or more conveyor floors or platforms, each consisting of a longitudinal series of transverse shelves or trays arranged in two sets, which are given a longitudinal reciprocating motion relative to one another so that the material progresses step by step in one direction, as for example, in United States Patent No. 1,249,771. The present invention has for its chief object to afford stability to the shelves or trays and eliminate the friction between the trays, thereby reducing the wear and prolonging the life of said trays.

According to the invention, means are provided for supporting each movable tray with a slight clearance from the fixed tray in conjunction with which it operates.

In order that the invention may be clearly understood and readily carried into effect, the same will now be more fully described with reference to and by the aid of the accompanying drawings; wherein:—

Figures 1 and 2 are respectively a longitudinal section and a plan view illustrating a portion of the tray mechanism of a drying apparatus or machine of the kind referred to.

Referring to the drawings, 1 are the fixed inclined trays which are mounted on the machine frame 2 through the medium of set screws 3. The movable tray 4 of each set is provided at each side with inclined extension arms 5 which are secured to the side bars 6 by set screws 7 which also serve to fasten or hold in place doll-heads 8 for supporting the extension arms 5 of the tray of the next set. Thus, the extension arms 5 are each provided with pegs 9 at or near the lower edge of the tray 4, which pegs rest in the V-shaped notches of the doll-heads 8 and thereby afford stable support to the trays 4, the arrangement being such that the movable tray 4 is held and maintained with a slight clearance, as shown, from the fixed tray 1 in conjunction with which it operates. The fixed trays 1 are provided with the usual friction strip 10 at each end, and the set screws 3 support the trays 1 by engaging recesses 11 in the sides thereof. The movable trays 4 are fitted with angle section ends 12, from which the extension arms 5 extend, and a stiffener 13, whilst a wiper 14 is mounted between the stiffener 13 and the forward end of each tray 4. A traverse slide shoe 15 for giving the inclined or oblique travel to the moving trays 4 is provided to engage a ball bearing runner 16, and said traverse slide shoe 15 is associated with the side bars 6 which may be connected to the gearing at the front of the machine in any appropriate manner.

We claim:—

1. In a drying machine, the combination of side bars, movable trays having extensions connected to said side bars, and means supporting said extensions adjacent the movable trays.

2. In a drying machine, the combination of stationary trays, side bars, movable trays having extensions connected to said side bars, and means supporting said extensions with slight clearance between the movable trays and their coacting stationary trays, said means being positioned adjacent the movable trays.

3. In wool, cotton, rag and the like drying apparatus or machines of the kind specified, side bars, movable trays provided with side extension arms, means for attaching the side extension arms to the side bars along each side of the machine, and means for supporting said side extension arms near the movable trays.

4. In wool, cotton, rag and the like drying apparatus or machines of the kind specified, side bars, movable trays provided with side extension arms, means for attaching the extremities of the side extension arms to the side bars along each side of the machine, and means associated with said side bars for supporting said side extension arms near the trays.

5. In wool, cotton, rag and the like drying apparatus or machines of the kind specified, side bars, movable trays provided with side extension arms, set screws for attaching the extremities of the side extension arms and the extension arm supporting means to the side bars along each side of the machine.

6. In wool, cotton, rag and the like drying apparatus or machines of the kind specified, side bars, movable trays provided with side extension arms, pegs provided on the side extension arms near the lower edge of each movable tray, doll-heads on the side bars for

supporting said side extension arms by engagement with the pegs.

7. In wool, cotton, rag and the like drying apparatus or machines of the kind specified, side bars, movable trays provided with angle section ends, side extension arms extending from said angle section ends, a stiffener associated with each movable tray, a wiper mounted between the stiffener and the forward end of each movable tray, pegs on the side extension arms near the lower edge of each movable tray, doll-heads having V-shaped notches engaging said pegs, set screws for securing the side extension arms of one movable tray and the doll-heads of the next movable tray to the side bars of the machine.

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