(No Model.)

J. H. BULLARD.

RAISIN SEEDER.

No. 567,806. Patented Sept. 15, 1896.

Fig. 3.

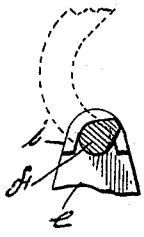


Fig. 4.

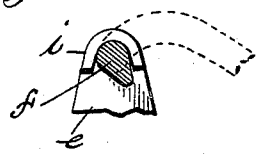


Fig. 1.

Fig. 2.

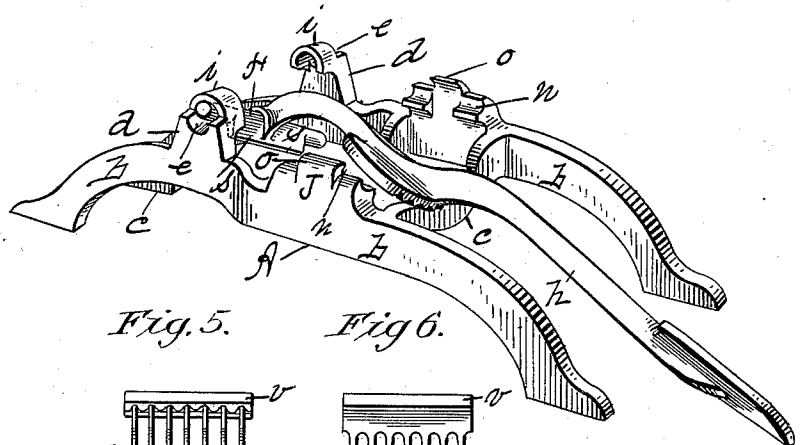


Fig. 5.

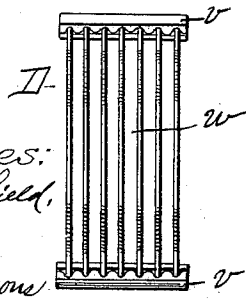
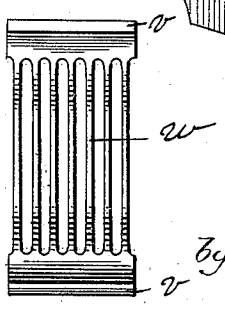


Fig 6.



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UNITED STATES PATENT OFFICE.

JAMES H. BULLARD, OF SPRINGFIELD, MASSACHUSETTS.

RAISIN-SEEDER.

SPECIFICATION forming part of Letters Patent No. 567,806, dated September 15, 1896.

Application filed March 20, 1896. Serial No. 584,089. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. BULLARD, a citizen of the United States of America, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Raisin-Seeders, of which the following is a specification.

This invention relates to raisin-seeding machines, the object being to provide a machine of this class of improved and simplified construction in which the main parts may be so cast as to be ready for assembling with the expenditure of little or no labor thereupon and embodying an improved construction of wire bed for the reception of the raisin thereupon, which is made independently of, and is consequently removable from, the machine; and the invention consists in the peculiar construction and arrangement of the several parts of the device, all as hereinafter fully described, and more particularly pointed out in the claims.

In the drawings forming part of this specification, Figure 1 is a perspective view of a raisin-seeding machine embodying my invention, the raisin-pressing lever being shown raised from the wire bed, as when placing a raisin on said bed. Fig. 2 is a perspective view of the frame and of the pressing-lever of the machine shown in partially-disconnected positions. Figs. 3 and 4 illustrate detail parts hereinafter described. Figs. 5 and 6 are plan views of the wire bed of the machine.

In the drawings, A indicates the frame of the machine, consisting of the leg-bearing side elements *b b* and the cross-braces *c c*. On the said frame are two pillow-blocks *d d*, each having at its upper extremity a bearing *e* to receive the ends of the shaft *f* of the pressing-lever *h*. Each of the said bearings *e* has an overhanging hood *i*, of circular form, constituting the upper sides of said bearings, said hood being wholly inside of the inner face of the pillow-block *d*, to the end that there may be a clear space under each of said hoods between the inner end of the latter and the said inner face of the pillow-block. The under side of the bearings *e* on each pillow-block is on the upper end of the body of said block. Thus a pillow-block bearing for each end of the shaft *f* of said pressing-lever is provided having varying vertical planes on the inner sides of said pillow relative to a central point between the ends of a shaft supported in said bearings, the inner edge of each hood *i* forming one of said planes and the inner face of each pillow-block below the bearing *e* forming the other plane. Extending upwardly from the opposite sides of said frame A are two wire-bed-supporting arms J. On the upper end of each of said arms J is a half-round groove *n*, extending in the direction of the length of said frame, and extending above said groove and slightly overhanging the same is a lip *o*, grooved on its under surface in a line with said groove *n* and corresponding to the latter. Said pressing-lever *h* and its transversely-arranged bearing-shaft *f* are preferably formed by casting the same in one piece. Each of the extremities of said shaft of the pressing-lever, for a distance about equal to the length of each hood *i*, and the thickness of the adjoining end of the pillow-block *d*, on which said hood is located, is of cylindrical form, and on each portion of said shaft, extending from the center of the lever *h* outwardly, is a boss *s* on a portion only of the surface of said shaft, and the extremities of said bosses are adapted for engagement against the inner opposite edges of said hoods *i* when said shaft is in the bearings of said lock in operative position, as shown in Fig. 1; and when in said position the extremities of said bosses are in temporary engagement with the inner borders of said hoods *i*, to the end that the said shaft may be retained while in said position on said pillow-blocks against endwise movement; but when the wire or metallic bed D, hereinafter described, on which the raisin is laid to have the seeds pressed therefrom, is removed from the frame of the machine, the free end of said lever *h* may swing low enough to cause the extremities of said bosses *s* to swing downwardly out of engagement with the inner borders of said hoods *i*, thereby permitting said lever and its shaft to be moved within its said bearings to one side or laterally, so that thereby one end of said shaft may be disconnected from its bearings and then be turned downwardly, as shown in Fig. 2, into the open part of the frame between the pillow-blocks *d*, thereby permitting the other end of said shaft from being drawn inwardly and out from its bearing, whereby the lever *h* is disconnected from said frame. If desired, said lever-shaft *f* may be made

separately from the lever and be suitably attached thereto, and projecting pins may be placed in said shafts as substitutes for said bosses *s*. Placing the shaft end of said lever into the open part of the base between said pillow-blocks brings the shaft into such position that one end may be entered into one of its bearings, and then, by raising the other end of said shaft upwardly into line with the opposite bearing and entering into the adjoining bearing, it can be easily brought into operative position in the pillow-block.

The above-described manipulation of the pressing-lever relative to the bearings on the pillow-blocks on the frame A clearly sets forth the advantages of the peculiar construction of said pillow-blocks and the shaft portion of said lever resulting from casting said lever and shaft and said pillow-blocks containing the forms described, whereby the parts when cast are ready for assembling one with the other in the manner described with little or no preparation therefor beyond that which is provided by good and smooth castings. The said wire bed D consists of a series of parallel separated steel wires or strips *w*, having a raised central portion, on which the raisin is laid in a position under that part E of the pressing-lever which is brought against the raisin. The said series of wires or strips have their ends fixed in any suitable manner to two cylindrical bars *v v*, as shown, which bars are adapted to enter the said grooves *n n* in the upper ends of the arms J on said frame and to slide into said grooves by springing said bars toward each other and then sliding the same simultaneously into the groove of said arms. The said wire or metallic bed containing said wires or strips *w* and the cylindrical end supports *v*, as described, provides a construction for the herein-described device which constitutes an improvement over those heretofore made in that the formation of the base of the machine for receiving the bed is simplified. The construction of the wire bed apart from the frame of the machine is more economical than to connect each of the wires to said frame. The removal of the wire bed from the base for cleansing purposes is found in practice to be convenient, and it provides for replacing an injured bed by a new one with little trouble and at slight expense. In constructing the said wire bed as shown in Fig. 5 the extremities of the group of the wires thereof near the point of their connection with the said cylindrical bars *v v* are outwardly bent at each end of said bed at *x*, Fig. 1, to form a groove for engagement with the opposite borders of a seed-pan which may be placed under said bed, if desired. Furthermore, the securing of the arch-shaped wire bed in the frame by springing its ends in between the two grooved sides thereof convexes said bed beyond its normal convexity, thereby spring-bracing it against the downward pressure of the lever when the machine is in use.

The bed construction shown in Fig. 6 illustrates one in which the strips *w* and the bars *v* are integrally made from sheet metal.

The operation of the machine is easily understood and consists in placing a raisin (preferably after the same has been suitably moistened by soaking more or less) on said bed and bringing the lever *h* against the raisin, whereby the seeds therein are forced through the skin of the raisin and between the wires of said bed and caused to drop into any suitable receptacle.

The form of the wire bed, as shown, provides for conveniently pressing one raisin after another against one of its inclined sides and sliding it upward into position centrally on said bed, whereby the raisin from which the seeds have already been pressed is discharged upon the other side of the machine.

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

1. In a raisin-seeder, an open-work wire bed, a raisin-pressing lever operating against said bed, a supporting-shaft for said lever having projections thereon for engagement with a portion of the adjoining sides of the bearings for said shaft on said bed, combined with bearings for said shaft having varying vertical planes on the sides thereof adjoining said shaft projections, whereby said shaft is held against endwise movement, or is permitted to be moved endwise at the pleasure of the operator whereby said shaft and its integrally-attached lever are connected with, and disconnected from, the bed, substantially as set forth.

2. In a raisin-seeder, a raisin-pressing lever, a supporting-shaft on said lever having projecting bosses thereon for engagement with the inner opposite sides of the bearings of said shaft, combined with pillow-block bearings for said shaft having overhanging hoods thereon between the inner opposite borders of which hoods said bosses engage, thereby preventing endwise movement of said shaft while in operative position, substantially as set forth.

3. In a raisin-seeder, a bed composed of parallel wires rigidly united at their opposite ends to metal pieces, whereby a seeding-bed, as an entirety is formed for spring engagement between the opposite grooved sides of the frame, and whereby the upper surface of said bed is arched or convexed, substantially as described.

4. In a raisin-seeding machine, a frame therefor, a raisin-pressing lever having a cross-shaft fixed thereto, having the bosses *s*, thereon, bearings for said shaft consisting of the pillow-blocks *d*, and the overhanging hoods *i*, thereon, with which said bosses engage, and the wire bed D, removably attached to said frame, substantially as set forth.

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