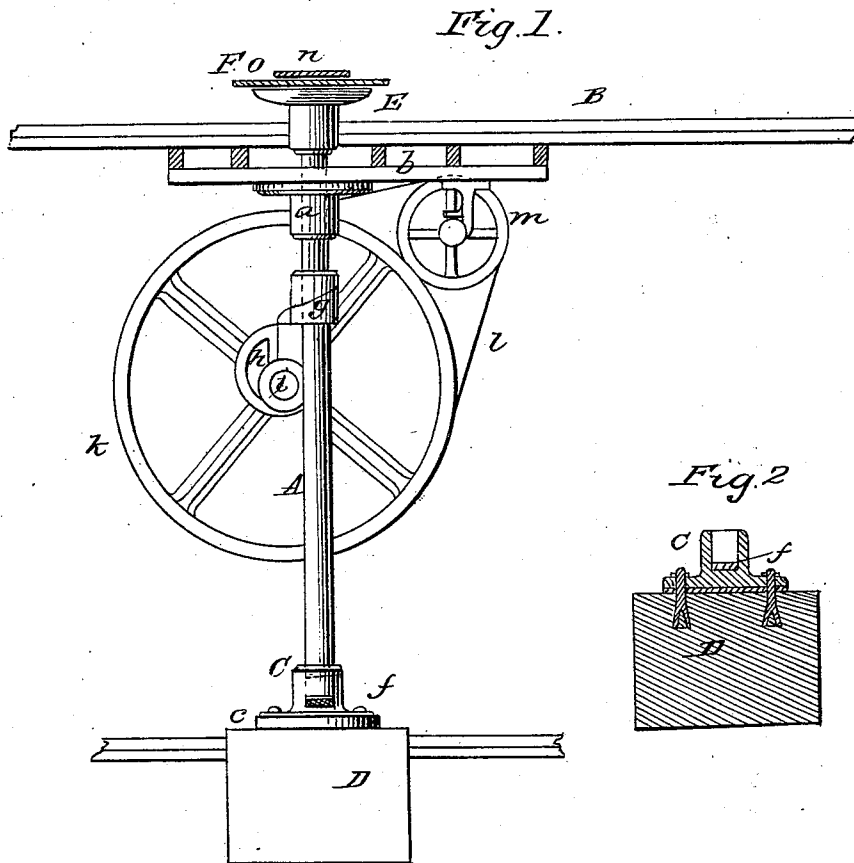


G. A. JASPER.

Machine for Compacting Sugar in Barrels and Boxes.

No. 38,787.

Patented June 2, 1863.



WITNESSES

A. R. Hale Jr.
Frederick Curtis

INVENTOR

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by his attorney
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UNITED STATES PATENT OFFICE.

GUSTAVUS A. JASPER, OF CHARLESTOWN, MASSACHUSETTS, ASSIGNOR TO
THE UNION SUGAR REFINERY, OF SAME PLACE.

IMPROVED MACHINE FOR COMPACTING SUGAR, &c., IN BARRELS, BOXES, &c.

Specification forming part of Letters Patent No. 38,787, dated June 2, 1863.

To all whom it may concern:

Be it known that I, GUSTAVUS A. JASPER, a resident of Charlestown, in the county of Middlesex and State of Massachusetts, have invented a new and useful machine for compacting sugar or other powdered or loose material or materials in a box or barrel during the process of filling it therewith; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 denotes the said machine in side elevation, while Fig. 2 is a vertical section of its shaft-step.

In carrying out my invention I make use of a vertical shaft, A, which I extend down through a floor, B, of the apartment wherein the barrels are to be filled. This shaft I arrange in a guide bearing or collar, a, made and applied to it and fixed to the ceiling b of the apartment, which may be directly underneath the floor B. The lower end of the shaft enters a step, C, which is of metal, and fastened to the upper surface of a bed-stone, D, there being a thick sheet or cushion, c, of vulcanized rubber or other elastic material interposed between the step and the bed-stone. Within the socket of the step there is also another such piece or cushion of india rubber, f, which is shown more particularly in Fig. 2. The shaft carries a projection, g, against which a cam or wiper, h, is to operate in order to elevate the shaft. This cam is fixed to a horizontal shaft, i, on which is a pulley, k, driven by a band, l, which goes around it, and a smaller pulley, m, which may be driven or revolved by power suitably applied to it. On the upper end of the shaft A there is a round head, E, which supports a double platform, F,

composed of two circular disks, n o, the former of which is of a diameter somewhat less than the barrel-head, in order that when a barrel is placed head downward upon such disk n the flat surface of the head may rest on the disk n, and the lower ends of the staves be supported on the disk o, the thickness of the said disk n being equal to the projection of the staves below the barrel head. During each revolution of the cam or wiper the shaft, with its head and double platform, will not only be raised upward, but be suffered to fall by the action of gravity, the blow of descent being relieved by the rubber cushion of the step of the shaft. Thus, while a workman may be shoveling sugar or other loose material into the barrel on the platform, such will be compacted in the barrel through the agitation effected by the successive rises and falls of the shaft. Practice proves that by the use of such a machine about ten pounds more of loose crushed or powdered sugar can be packed in a barrel than by the ordinary mode of doing it with the shovel, and by occasional shaking of the barrel by the workman.

I claim as my invention, and for the purpose described—

A machine, substantially as specified—that is to say, as consisting of a combination of the barrel platform, the shaft, the cushion-step, or their mechanical equivalents, and mechanism for elevating the shaft and allowing it to fall by gravity, the whole being arranged in manner and so as to operate as hereinbefore explained.

GUSTAVUS A. JASPER.

Witnesses:

F. A. BROOKS,
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