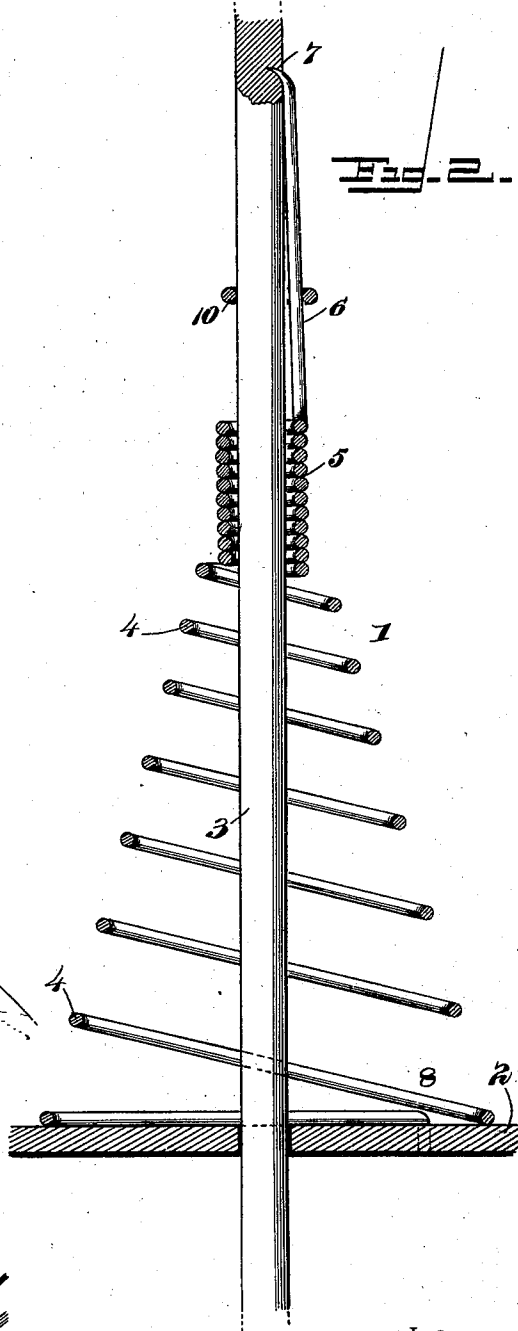
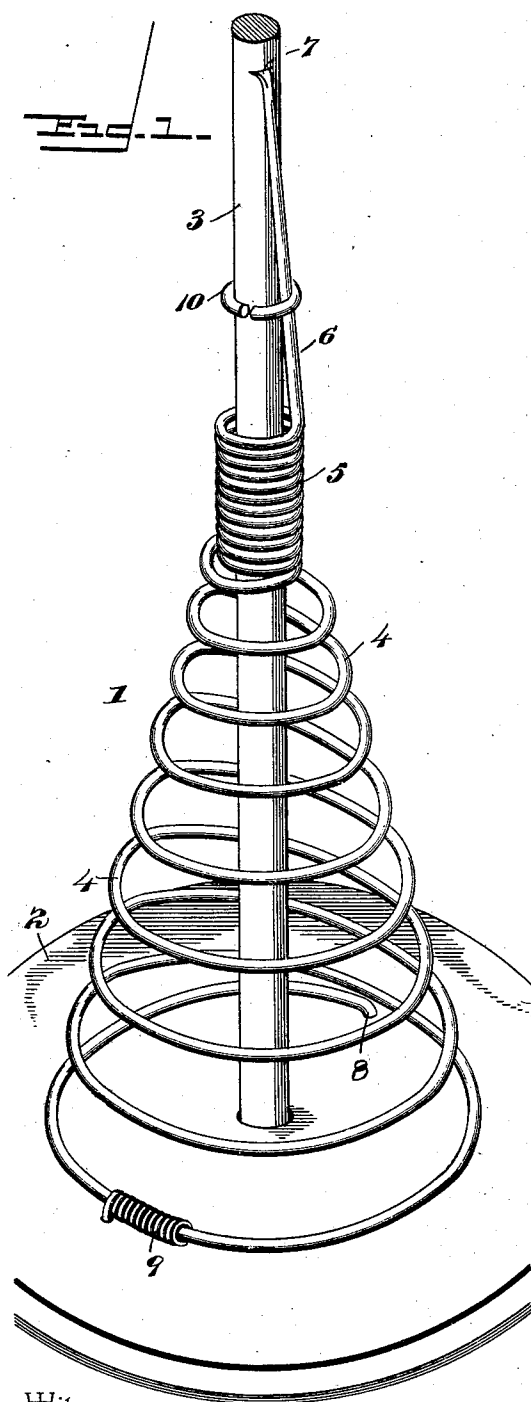


(No Model.)

J. N. HATCHER.
CHURN DASHER.

No. 565,980.

Patented Aug. 18, 1896.



Inventor

Judson N. Hatcher

Witnesses

E. H. Stewart
J. H. Riley

By *his* Attorneys,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

JUDSON NOELL HATCHER, OF WILLIAMSBURG, MISSOURI.

CHURN-DASHER.

SPECIFICATION forming part of Letters Patent No. 565,980, dated August 18, 1896.

Application filed August 27, 1895. Serial No. 560,682. (No model.)

To all whom it may concern:

Be it known that I, JUDSON NOELL HATCHER, a citizen of the United States, residing at Williamsburg, in the county of Callaway and State of Missouri, have invented a new and useful Churn-Dasher, of which the following is a specification.

The invention relates to improvements in churn-dashers.

10 The object of the present invention is to provide for vertically-reciprocating hand-operated churn-dashers a spring attachment capable of lifting the dasher to relieve the operator of the labor incident to the upstroke, and capable of ready adjustment to permit 15 the dasher to be arranged to operate properly on the quantity of cream to be churned.

The invention consists in the construction and novel combination and arrangement of 20 parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the drawings, Figure 1 is a perspective view of a spring attachment constructed in 25 accordance with this invention and shown applied to a portion of a churn. Fig. 2 is a vertical sectional view of the same.

Like numerals of reference indicate corresponding parts in both figures of the drawings.

30 1 designates a spring attachment for dashers, mounted on a churn-cover 2 and connected with a dasher-rod 3, and constructed of a single piece of resilient wire, and consisting of a lower spirally-coiled conical spring 4, an upper closely-coiled portion 5, forming a sleeve, and an upwardly-extending stem 6, terminating in a spur 7 for engaging the dasher-rod. The base of the conical spring 40 is secured to the cover 4 by having the lower terminal 8 of the wire of which the spring attachment is constructed bent downward and arranged in a perforation of the cover, and a sleeve 9, of spirally-coiled wire, embraces the 45 lowermost coil of the conical spring at a diametrically opposite point, and is secured to the cover.

The spring attachment is adjustably connected with the dasher-rod to enable the 50 dasher to be arranged at the desired elevation to suit the quantity of cream to be churned, and the spur 7 is held in engagement with the dasher-rod to firmly clamp the same by a resilient ring 10, constructed of wire or other 55 suitable material, and having the terminals

of the wire separated to permit the ring to yield.

When it is desired to disengage the spur from the dasher-rod, the latter is partially rotated in either direction to turn the spur outward, and by rotating it in the opposite direction, after the spur is disengaged, it is re-engaged with the rod. The closely-coiled portion or sleeve 5 forms a grip or handle to enable the stem 6 to be conveniently rotated 65 to manipulate its spur. When the spur is disengaged from the dasher-rod, the latter is adapted to be freely adjusted to position the dasher properly, as above set forth, and the conical spring will permit a full stroke of the dasher-rod, as the coils, when compressed, fold within one another and do not contact.

It will be seen that the spring attachment is simple and inexpensive in construction, that it may be readily applied to a churn-dasher, and that it will relieve the operator of the laboriousness of the upward stroke. 75

The changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention. 80

What I claim is—

In a churn, the combination with a churn top or cover and a vertically-reciprocating 85 dasher-rod, of a spirally-coiled conical spring secured at its base to the churn-cover and encircling the dasher-rod, a closely-coiled cylindrical portion or sleeve disposed on the dasher-rod, connected with the top of the conical spring and forming a grip or handle, an 90 upwardly-extending stem arranged on the dasher-rod and provided at its upper end with a spur engaging the same, said stem being connected at its lower end with the sleeve and adapted, when the sleeve is rotated, to be 95 twisted to manipulate its spur to turn the same into and out of engagement with the dasher-rod, and a resilient ring encircling the dasher-rod and the stem and holding the spur 100 in engagement with the former and capable of yielding to permit the turning or twisting of the stem, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses. 105

JUDSON NOELL HATCHER.

Witnesses:

I. B. HANSARD,
ROBERT HANSARD.