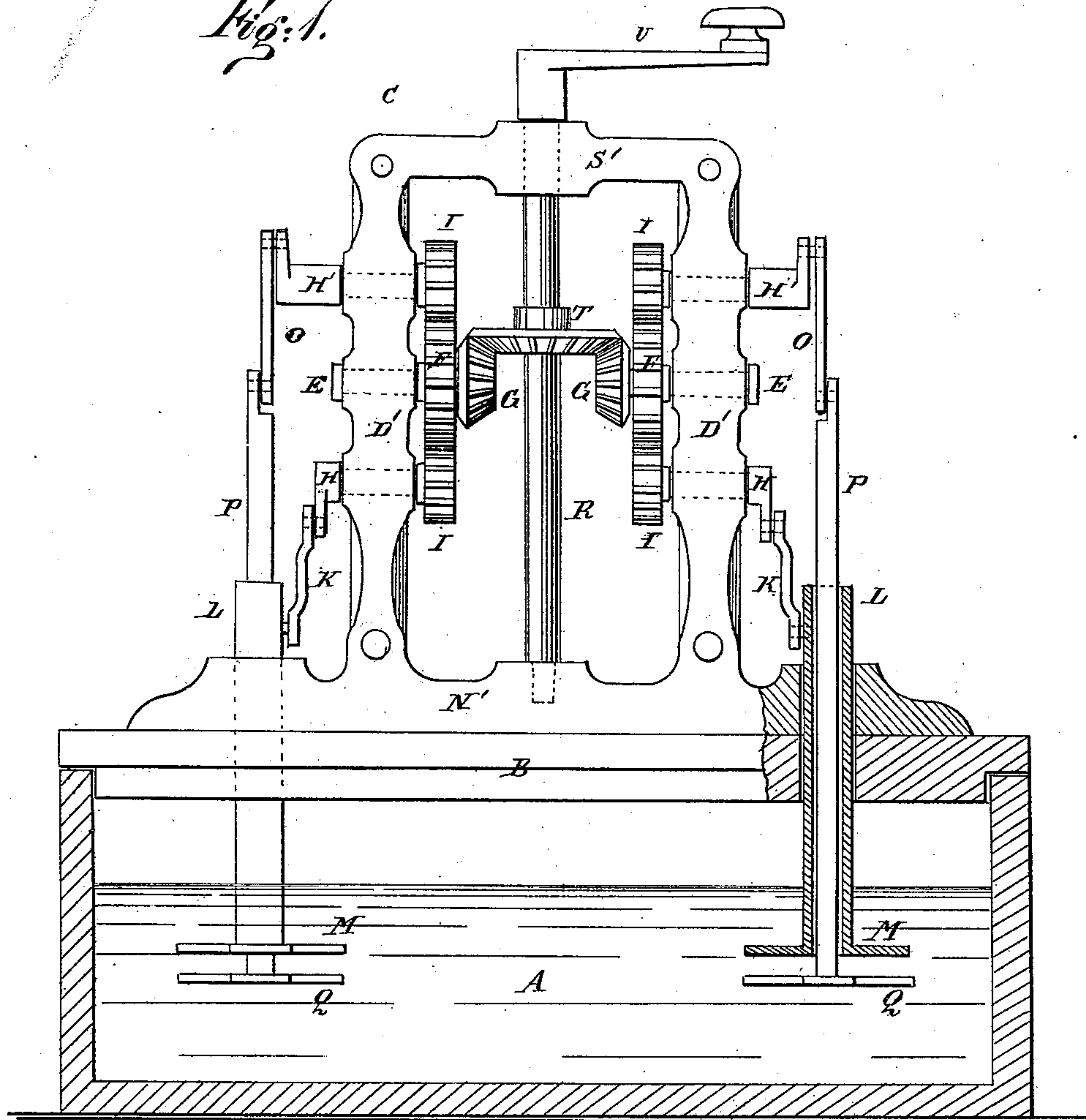


G. W. SAMPSON.  
Churn-Power.

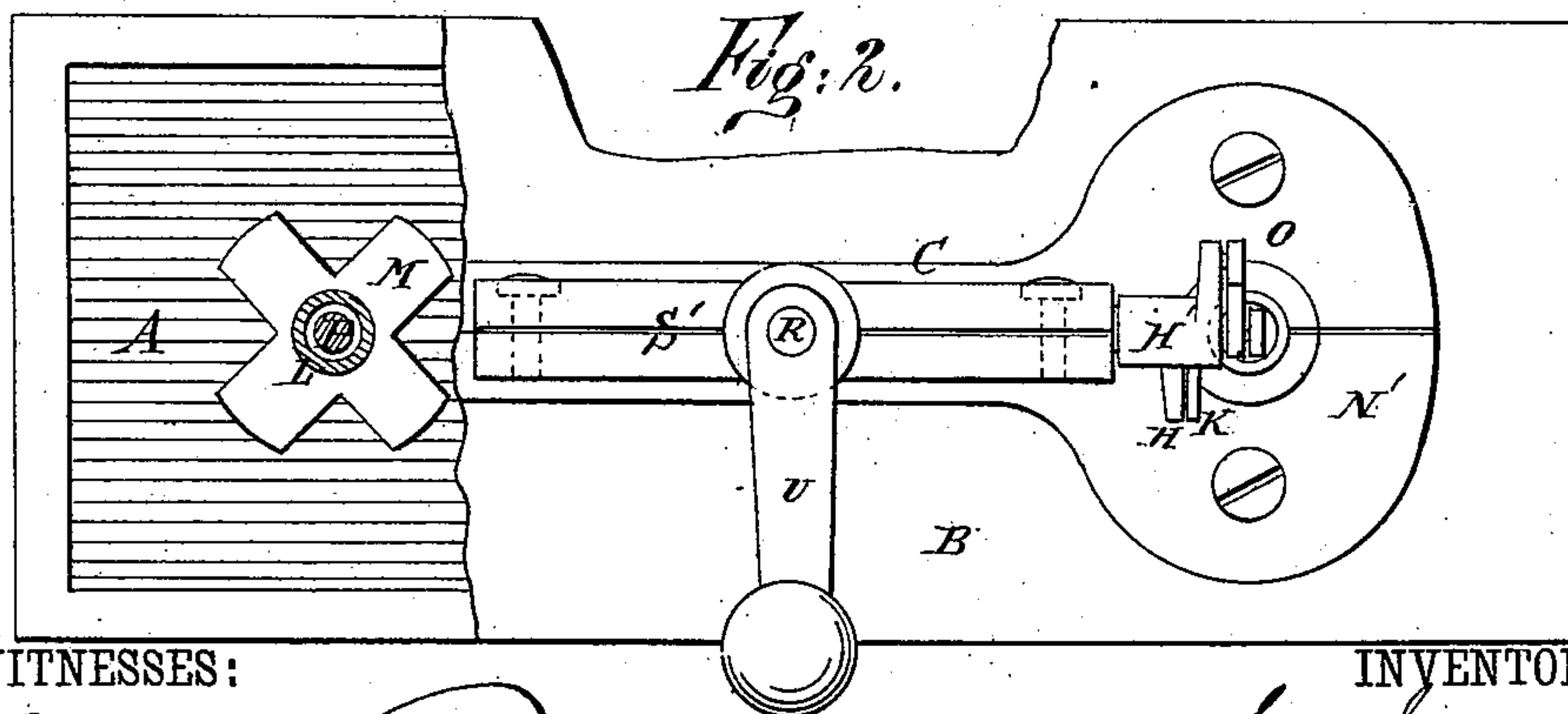
No. 227,305.

Patented May 4, 1880.

*Fig: 1.*



*Fig: 2.*



WITNESSES:

*Chas. Nida*  
*C. Sedgwick*

INVENTOR:

*G. W. Sampson*  
BY *Mum & Co*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

GEORGE W. SAMPSON, OF TECUMSEH, KANSAS.

## CHURN-POWER.

SPECIFICATION forming part of Letters Patent No. 227,305, dated May 4, 1880.

Application filed February 10, 1880.

*To all whom it may concern :*

Be it known that I, GEORGE W. SAMPSON, of Tecumseh, in the county of Shawnee and State of Kansas, have invented a new and Improved Churn-Power, of which the following is a specification.

Figure 1 is a front elevation of the churn, partly in section. Fig. 2 is a plan of the same, with a portion broken away to show the plan of a dasher.

Similar letters of reference indicate corresponding parts.

This invention relates to that class of churns that are provided with two dashers, set one above the other and operating with a reciprocating vertical motion.

The invention consists of a double standard supporting a vertical shaft, on which is fixed a beveled-gear wheel that gears with other wheels on each side of it, and thereby, through a combination of spur-wheels, pinions, crank-shafts, and pitmen, transmits motion to two pairs of dashers and dasher-stems of a churn, as hereinafter described.

In the drawings, A represents the body of the churn, which is preferably rectangular. B is the cover of the same. C is the double standard, made in two like parts and bolted together, as shown in the drawings—that is, firmly secured in an upright position upon the cover B.

About half-way up each post D' of the standard C is bored laterally, for the reception of the axles E, which carry keyed on their inner ends the spur-wheels F and beveled-gear wheels G. Above and below the axles E the crank-shafts H H' are journaled in the said posts D', in the same vertical line, and so that the pinions I, that are keyed on the inner ends of the said crank-shafts H H', shall both gear into the wheel F.

To the outer end of the lower shafts, H, are attached the pitmen K, that connect with the tubular dasher-stems L, on whose lower ends are centrally fixed the dashers M, said dasher-stems L being guided and steadied in their movement by passing down through the foot N' of the standard C, and also through the cover B of the body A of the churn.

To the outer ends of the upper crank-shafts, H', are attached the pitmen O, that connect with the rod dasher-stems P, that pass centrally down through the tubular stems and dashers L M, and have fixed centrally on their ends the dashers Q. These dashers M Q are preferably made of two plates centrally crossing each other, but may be made of any convenient shape.

The vertical shaft R, journaled in the top S' and foot N' of the standard C, centrally between the posts D', has keyed on it a beveled-gear wheel, T, that gears into the smaller gear-wheels G, so that by turning the crank U all the wheels and pinions are put in motion, and the stems and dashers L M and the stems and dashers P Q are made alternately to rise and fall within the body A of the churn, said dashers approaching and receding from each other four or five times in each revolution of the shaft R, so that the contents of the churn are operated upon with unusual rapidity and energy.

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

1. As a means for giving a vertical reciprocating motion to the four dashers M M Q Q and stems L L P P, the vertical shaft R, beveled-gear wheels T G G, spur-wheels F F, pinions I I I I, axles E E, crank-shafts H H H' H', and pitmen K K O O, combined, constructed, and arranged substantially as herein shown and described.

2. The double standard C, constructed in two parts, substantially as herein shown and described, for supporting the driving mechanism of the churn-dasher.

3. For transmitting motion to the four dashers M M Q Q, herein shown, and in combination therewith, the pitmen K K O O and crank-shafts H H H' H', all arranged and operating as herein shown and described, the said crank-shafts being journaled in the double standard C, as set forth.

GEORGE WILLIAM SAMPSON.

Witnesses:

OTTO DUROW,  
SAMUEL PAINTER.