J. WILSON. Animal Power.

No. 232,384. Patented Sept. 21, 1880. FITTE 5t. Cooper.

## United States Patent Office.

JEFFERSON WILSON, OF BEAVER FALLS, PENNSYLVANIA.

## ANIMAL-POWER.

SPECIFICATION forming part of Letters Patent No. 232,384, dated September 21, 1880.

Application filed March 31, 1880. (No model.)

To all whom it may concern:

Be it known that I, Jefferson Wilson, of Beaver Falls, Beaver county, Pennsylvania, have invented an Improvement in Animal-Powers, of which the following is a specification.

My invention is an improved animal-power, constructed as fully described hereinafter, to secure increased efficiency and permit the apparatus when not in operation to be stowed in a space no greater than the dimensions of its supporting-frame.

In the drawings forming part of this specification, Figure 1 is a side elevation of my improved animal power, shown adapted to be used with a reciprocating churn; Fig. 2, a sectional elevation; Fig. 3, a plan, and Fig. 4 an enlarged perspective view of one of the web-

connecting links.

F F' are uprights of the supporting-frame, and a a' a² a³ are connecting-bars. B is the driving-drum, revolving with its shaft d, which bears in journals on the bar  $a^3$  of the supporting-frame. C is a crank-wheel on a short shaft, 25 c', supported in suitable bearing on the frame A. A pinion, D, on the shaft c' gears with teeth on the inside of the driving-drum B. Within the bars  $a^3$  are pivoted the inner ends of an L-shaped frame, e, at the outer ends of 30 which is a shaft carrying a small drum, h, and over the latter and over the driving-drum B travels an endless web, G, composed of slats b b, which are connected at the inner sides by links of any suitable construction. I prefer, 35 however, to use links of the form shown in Fig. 4, in which each link has a narrow longitudinal rib, o, terminating at one end in a projecting hook, k, and near the opposite end of the rib o is an eye, i, for the reception of the hook 40 of the preceding link, thus forming a continuous chain of links, which connect the slats flexibly together.

To the frame e, near the drum h, is hung, by two pivoted arms, l, a cross-rod, m, Fig. 2, the projecting ends of which serve to support the frame e by bearing in notches f on the posts F' F', thus affording a suitable means for adjusting the web to any desired degree of in-

clination.

One of the spokes of the crank-wheel C has a slot, x, receiving the end of the wrist-pin E, to which a rod, E', hung to the lever H, is con-

nected, said lever being pivoted at the upper end to the post F of the supporting-frame. The outer end of the pivoted lever is provided 55 with a clamp, to which is fastened the rod J of the churn-dash. The said clamp consists of an L-shaped bracket, Q, pivoted at one end to the lever H and slotted at the other to receive the cam end of a lever, V, pivoted and capable 60 of being turned to clamp the rod against the upright arm of the bracket.

An arm, S, is hung to the post F, and the outer end of said arm has an opening for the passage of the dash-rod, and the arm rests on 65 the top of the churn, and is secured to the churn-body by means of hooks and staples, to prevent the churn from being shifted, which would interfere with the perfect working of the dash.

Two friction-wheels, u u, turn on study projecting from the rear faces of the posts F F, so that if the web shifts to either side it comes in contact with one of said wheels u, being thus held laterally without friction on the drum.

A small hand-lever, T, is pivoted to the post 75 F, so that it can be pressed on the wheel C and act as a brake.

When it is wished to operate a rotary churn I disconnect the rod E and pass the crank-handle of the churn through the slot x, so that 80 the churn-shaft is turned with and by the rotation of the wheel C.

When the apparatus is not in operation the cross-rod m is removed from the shoulders f, and the frame e and its drums and web are 85 turned to the position shown in dotted lines, Fig. 2, and the cross-rod m brought into notches f' in the bars a' of the supporting-frame, thus retaining the parts in place. The apparatus is thus compact, and occupies but little space 90 when not in use.

It will be apparent that the links g may be each cast in one piece, making it thereby inexpensive, strong, and durable.

1. The combination, in an animal-power, with the drum B and web G, of the pivoted frame e, carrying the outer drum, h, and constructed and arranged to permit the said frame e, with said drum h and web G, to be turned to a position within the outline of said supporting-frame, as set forth.

2. The combination, in an animal-power, of the drum B, web G, and pivoted frame e, car-

rying the outer drum, h, and the notched supporting-frame, and arms l, having a cross-bar,

m, as set forth.

3. The combination of slats b and links, each formed of a longitudinal rib, one end of which is perforated, as at i, while the opposite end is bent to form a connecting-hook, substantially as set forth.

4. The wheels u u, arranged in respect to the

web to bear with their edges thereon, as and 10 for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JEFFERSON WILSON.

Witnesses:

A. P. Bryson, Howard Stewart.