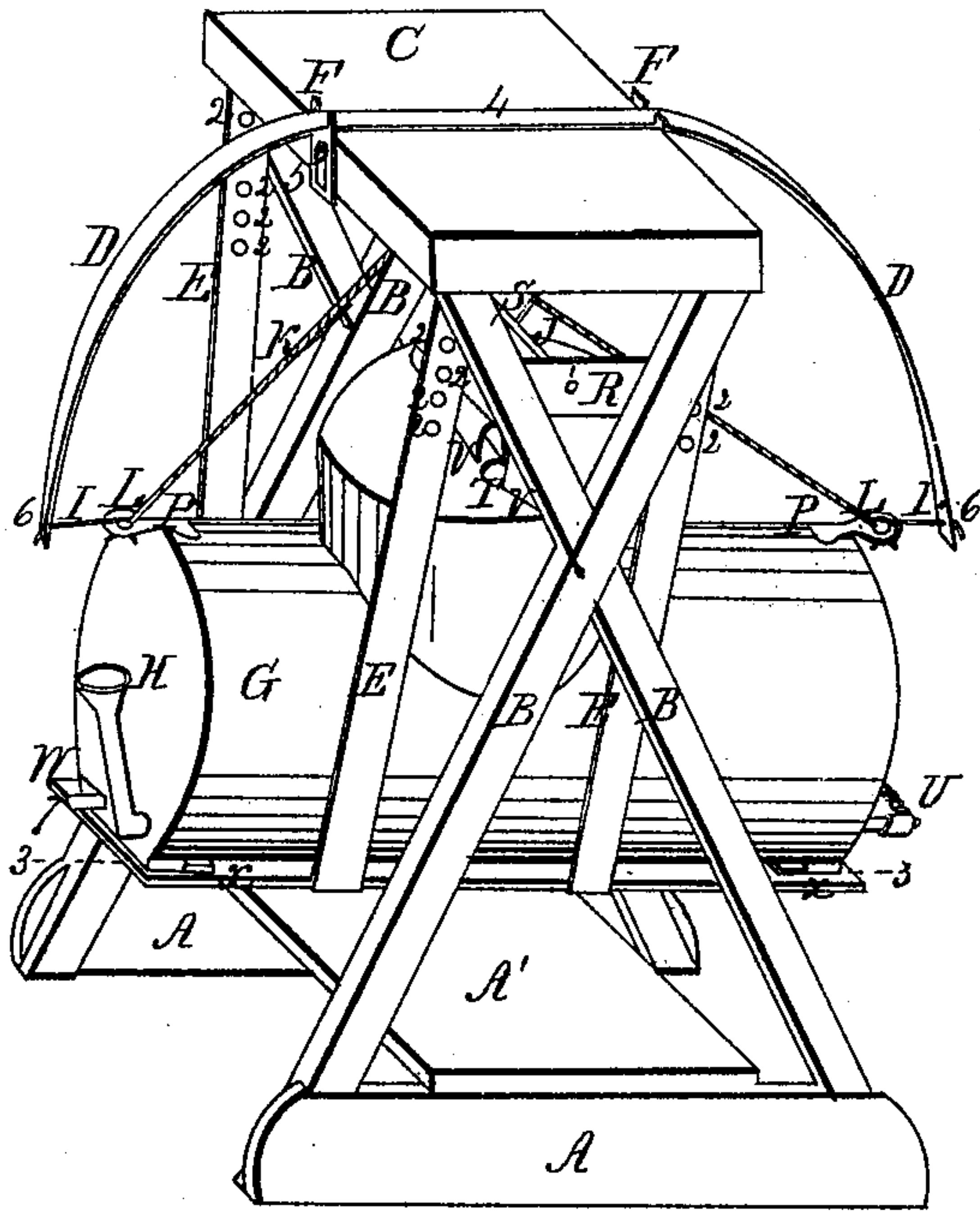


*J. Simpson,*  
*Churn.*

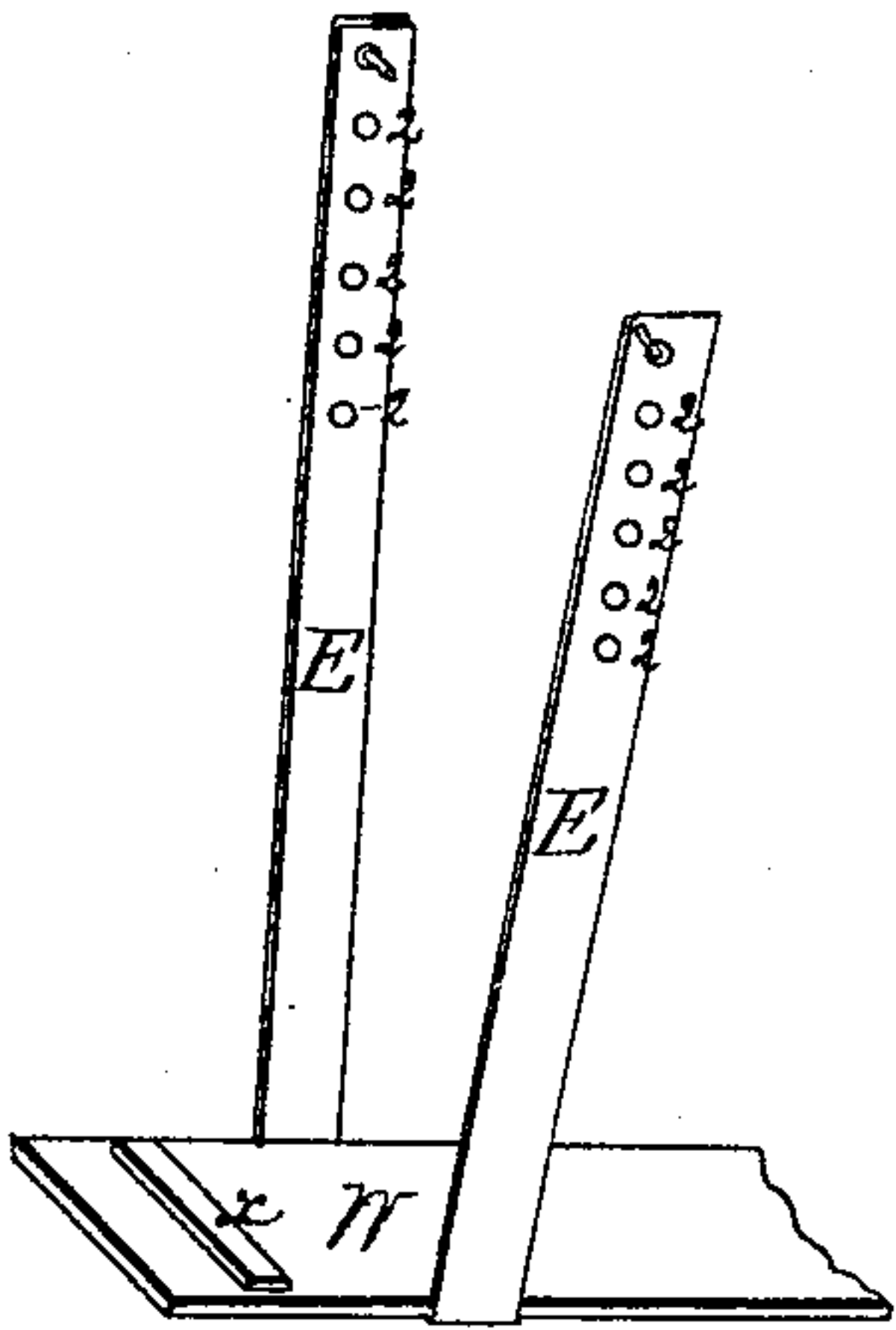
*No. 90,882.*

*Patented June 1. 1869.*

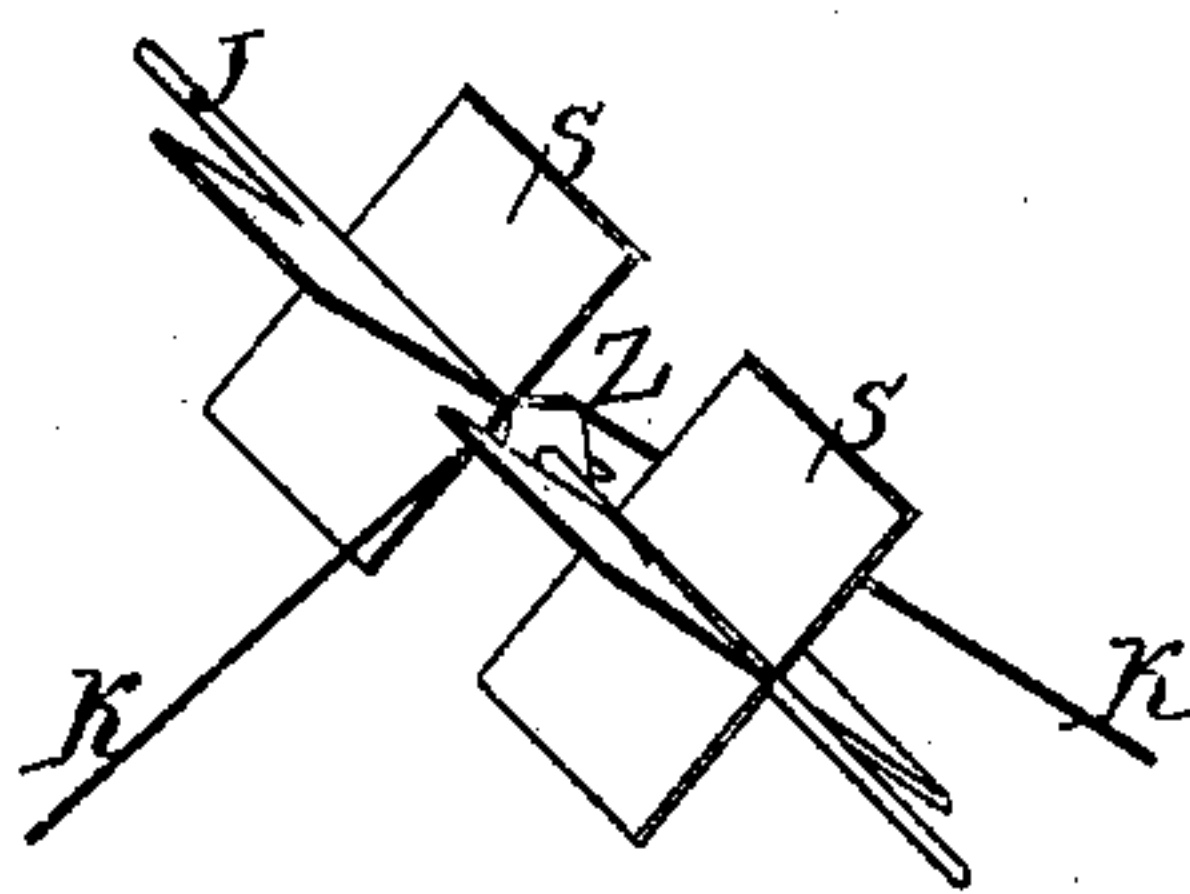
*Fig. 1*



*Fig. 2*



*Fig. 3*



*Witnesses.*  
*A. Simpson.*  
*J. Mc Clary.*

*Inventor.*  
*James Simpson*

# United States Patent Office.

JAMES SIMPSON, OF LIBERTYVILLE, ILLINOIS.

Letters Patent No. 90,882, dated June 1, 1869.

## IMPROVEMENT IN CHURNS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JAMES SIMPSON, of Libertyville, in the county of Lake, and State of Illinois, have invented an Improvement in Mechanism for Operating Churns; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, and letters marked thereon, making a part of this description, in which—

Figure 1 is a perspective representation of my invention.

Figure 2, a perspective representation of one end of the device for supporting the churn.

Figure 3, a perspective representation of the cooling-fan, detached from the other parts.

The nature of the present invention consists in a conveniently-arranged frame, from which is suspended an adjustable platform, for supporting a churn barrel, and which supports adjustable springs attached to the ends of the churn, for the convenience of giving the latter an oscillating motion, and in the novel arrangement of a cooling-fan, which is driven by a cord, fastening to the ends of the churn, and passing over a pulley on the fan-shaft, the whole operating as hereinafter fully shown.

A A A' represent the sills and cross-tie;

B B, the bracing standards; and

C, the cap of a substantial frame, which supports the working-parts of my device.

Nothing new, however, is claimed for the frame, except its adaptation to the purpose designed.

W is a light board platform, with cleats X fastened to its upper side, to bear against cleats 3 on the bottom of the churn, and hold it in place, said platform being suspended with straps, of leather, E, which pass under the platform, and have a series of holes, 2 2, &c., made through their upper ends, for the convenience of adjusting the platform W to any desired height, and for fastening to screws put into the upper parts of the braces B.

A spring, D D, is secured to the top of the cap C, by means of a staple, 4, fig. 1, and it is so held in position by means of adjustable bearings F, at both sides of the cap, as to properly increase or diminish the power with which its ends operate the churn G.

This is accomplished by means of slots in the bearings, through which screws 5 are put, to hold them in fixed positions when they are adjusted to the proper height.

The lower ends of the spring are connected with the churn G, by means of rods I, which hook into ears P fastened to the churn.

The object of the spring is to assist in giving a sudden stop to the churn at each consecutive oscillating motion, and obviate the jerking strain, which results from operating an oscillating churn, depending wholly upon physical force to produce this result.

The devices for cooling the cream during the process of churning, consist of a fan, S, figs. 1 and 3, fastened to a shaft, J, which has two bearings, R, attached to the inside of the braces B, and which has a pulley, Z, fixed to its centre, and operated by a cord or band, K, which is fastened, with hooks L, to the ears P, fig. 1.

In the drawings, a cylindrical churn, G, is represented, which has a concave lid, T, with draught-flues V V, communicating with the inside.

This form is, however, only one out of many that may be operated with my mechanism, and is, therefore, only shown to give a clear conception of my invention.

The operation is very simple, requiring that the churn be supplied with cream, and then placed on the platform W, and swung back and forth, in the direction of the darts *ff*, either by taking hold of the spring D, or by placing the foot on the step 7, fastened to the end of the churn G.

Having thus described my invention,

What I claim, and desire to secure by Letters Patent of the United States, is—

1. The combination of the frame A B C, platform W, suspended with adjustable straps E, spring D D, rods I, ears P, and adjustable bearings F, as set forth.

2. The combination of the braces B, bearings R, fan S, spring D D, churn G, and rod I, as set forth.

JAMES SIMPSON.

Witnesses:

AND. SIMPSON,  
J. MCCLORY.