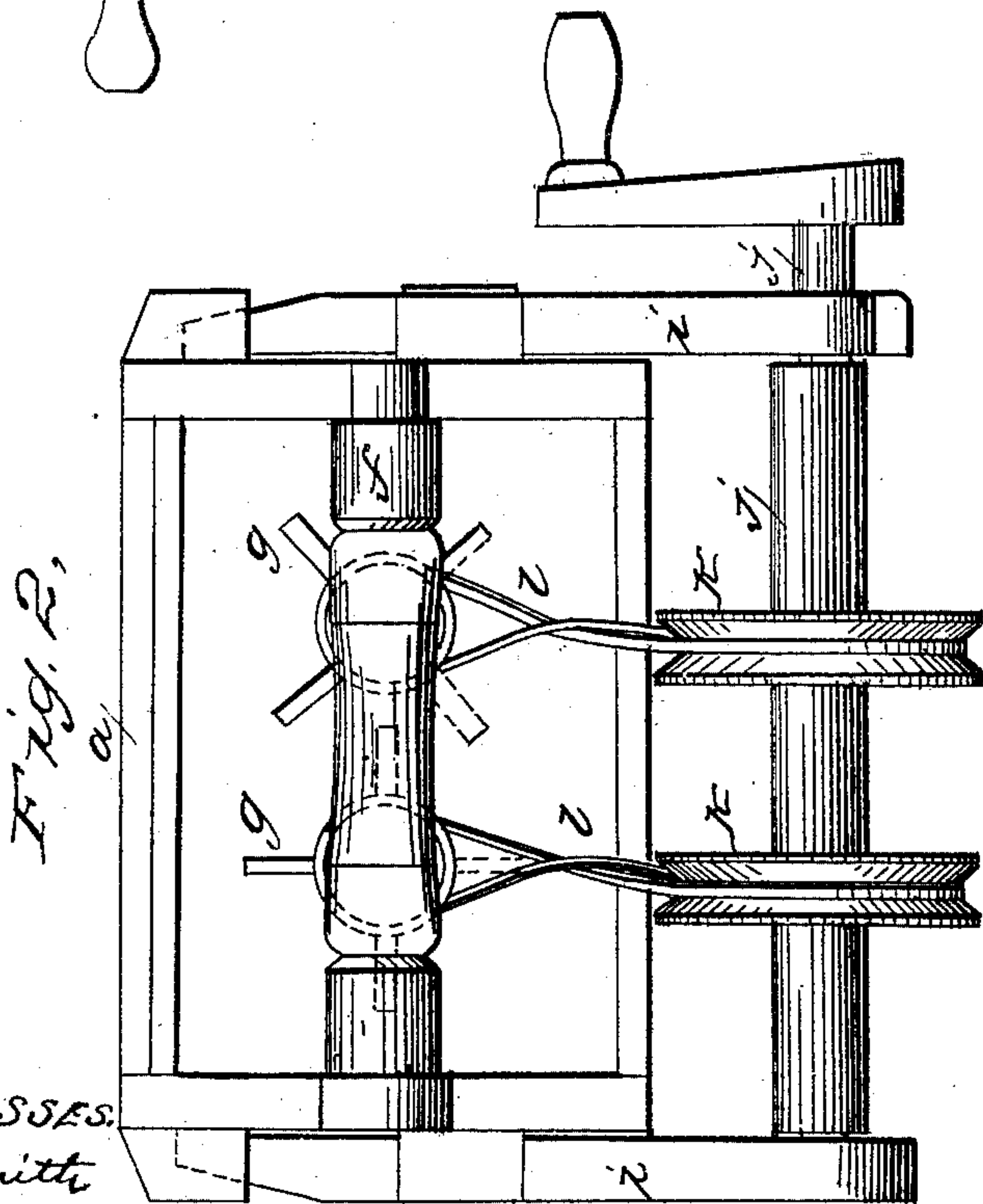
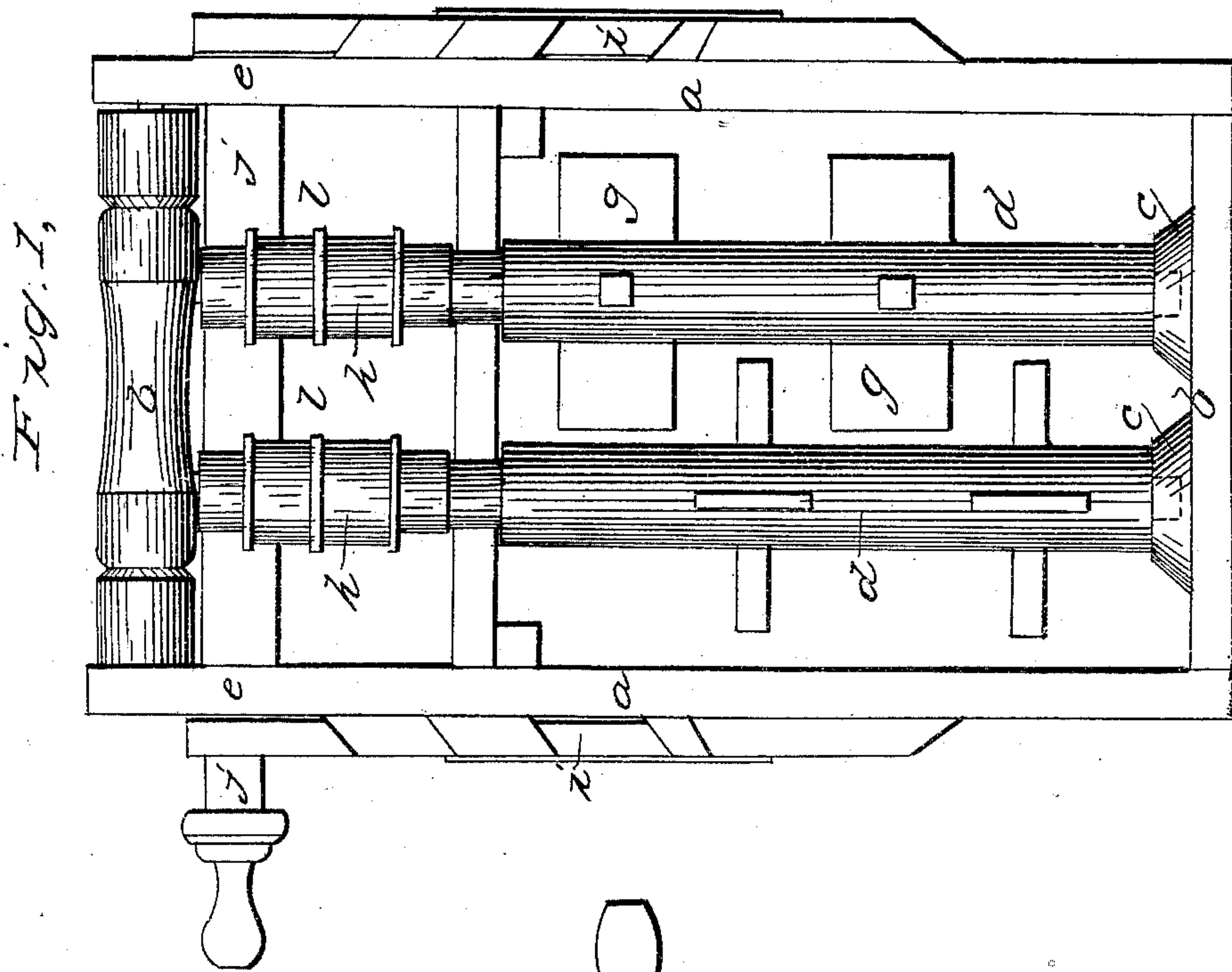


A. STEPHENS.

Churn.

No. 45,280.

Patented Nov. 29, 1864.



WITNESSES:
J. Smith
& E. Jones.

INVENTOR:
Alexander Stephens
by Atty. Thos. D. Everett,

UNITED STATES PATENT OFFICE

ALEXANDER STEPHENS, OF WASHINGTON, IOWA.

IMPROVEMENT IN CHURNS.

Specification forming part of Letters Patent No. 45,280, dated November 29, 1864.

To all whom it may concern:

Be it known that I, ALEXANDER STEPHENS, of the town of Washington, county of Washington, in the State of Iowa, have invented a new and useful Machine for Churning Butter from Cream or Milk; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the drawings herewith accompanying the same, of which—

Figure 1 is a view by vertical section on a line just back of the upright cylinders *d*; and Fig. 2, a top view with the lids of the machine removed, the same designating letters and marks being used in each of the figures.

The machine is constructed as follows: By constructing a box, *a*, fifteen inches long, twelve inches wide, and sixteen inches high, in the bottom *b* of which are fastened two small iron blocks, *c*, each with a socket in the center, in which the lower end of the upright cylinders *d* play. To each side of the box or churn is attached an upright *e* of about six inches in length above the top of the box or churn. The tops of these uprights being connected by a cross-bar, *b*, having inserted therein two metal thimbles, in which the upper ends of the vertical cylinders *d* run. In each of these vertical cylinders *d* are inserted four

fans or cross-pieces, *g*, each of seven inches in length, and so placed in the cylinders as to work between each other and move the cream or milk on each side. On each of the upright cylinders *d* is fastened, immediately below the connecting cross-bar, a pulley, *h*, one and a half inch in diameter. To each side of the churn is attached an arm, *i*, two feet in length, in the upper ends of which runs a crank-shaft, *j*. On this crank-shaft are fastened two wheels, *k*, with grooved circumferences of the diameter of eight inches. The arms *i* are fastened to the side of the churn by means of a wedge and keepers, and can be shortened or lengthened at pleasure. To each of the large wheels *k* is affixed a band or strap, *l*, which runs on the small pulleys *h*, and turns the cylinders *d*. The crank, thimbles, and sockets are made of iron. The balance of the machine to be of wood.

I claim as my own invention—

The combination and arrangement of the wheels, pulleys, and upright cylinders, the same being constructed and operated as herein set forth.

ALEXANDER STEPHENS.

Witnesses:

V. W. ANDREWS,
JAS. K. DOLG.