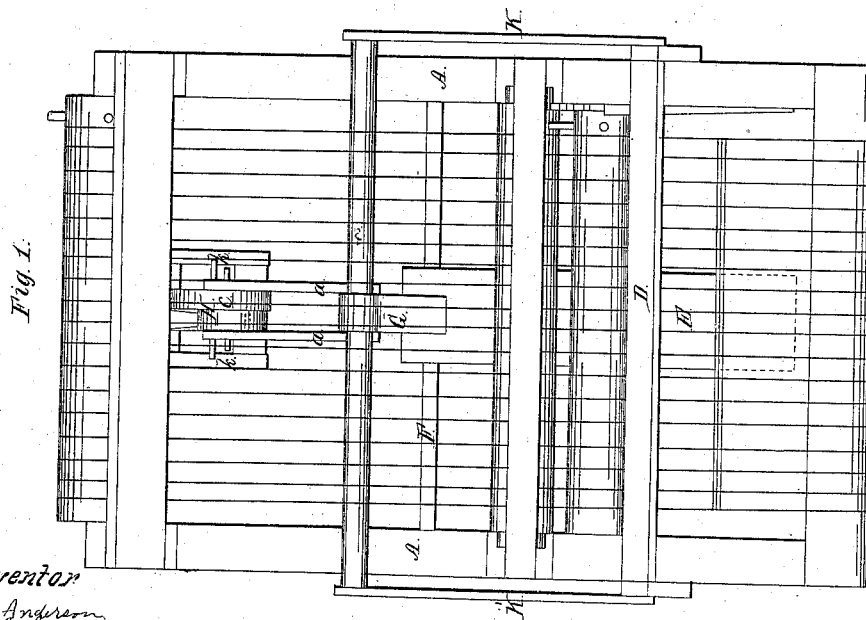
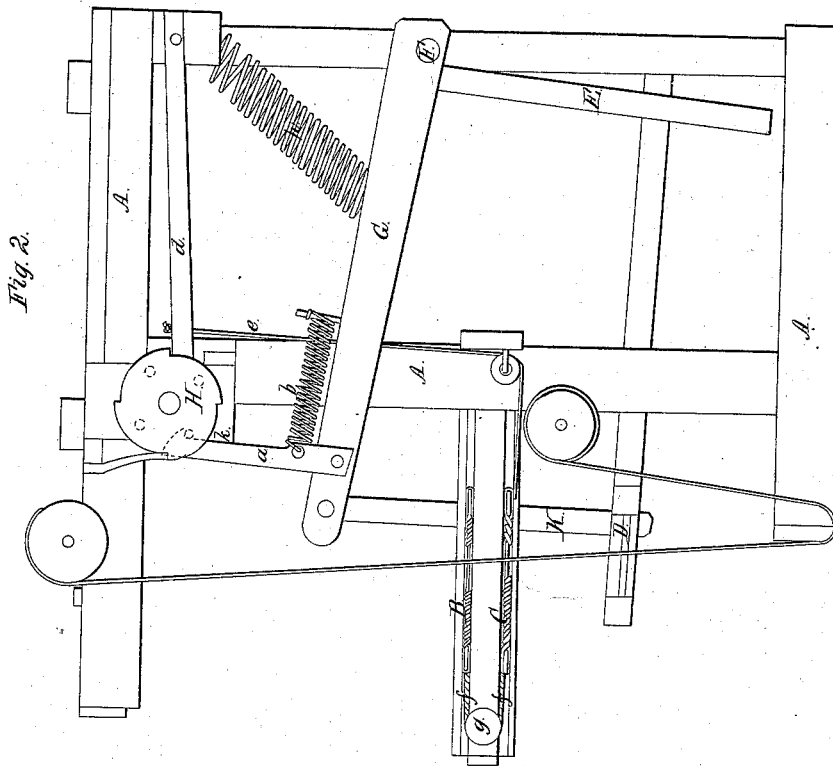


A. L. Anderson.
Cane and Straw Weaving.

Nº 54,661.

Patented May 15, 1866.



Inventor
A. L. Anderson
by his attorney
J. B. Jackson

Witnesses
J. D. Kingman
J. B. Miller

UNITED STATES PATENT OFFICE.

A. L. ANDERSON, OF WARE, MASSACHUSETTS.

IMPROVEMENT IN HARNESS-MOTIONS FOR LOOMS.

Specification forming part of Letters Patent No. 54,661, dated May 15, 1866.

To all whom it may concern:

Be it known that I, A. L. ANDERSON, of Ware, Hampshire county, Commonwealth of Massachusetts, have invented certain new and useful Improvements in Looms; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to letters of reference marked thereon.

This invention consists of an improved harness-motion particularly adapted to that kind of loom used in weaving straw or palm-leaf, but which may be also, if desired, attached to any loom, and also in connecting together the moving part of this harness-motion and the lathe of the loom in such a manner as that they may move simultaneously, as I will now more fully describe.

In the drawings, Figure 1 is a plan, and Fig. 2 a longitudinal vertical section, of my improved loom.

I will first describe the construction of my harness-motion.

In a suitable frame, A, I place the harnesses B C and lathe D of the loom. These parts are moved primarily by the treadle E, and the harness-motion is attached to it as follows: Attached to the shaft F, to which the treadle is fastened, the arm G is also fastened, projecting upward. From this arm the pieces *a a'* extend near the top, pivoted to the arm, and held down on the top of the wheel H by the spiral springs *b b*. This wheel has on each side pins, on which these pieces *a a'* catch by means of hooked ends. This wheel is also provided with a ratchet and catch to prevent its being turned backward, and with a friction-band, *c*, to overcome the momentum which would naturally carry it forward.

Attached to the lower part of the frame, and

also operated by the pins on the sides of the wheel H, are the levers *d d'*, to which are attached the cords *e e'*, passing around pulleys and connected to the under sides of the harnesses, which at the top are attached by the cords *f f'* to the roller *g*.

The harness is operated by pressing the treadle held up by the spring *h*, so that by moving the arm G the pieces *a a'* cause the wheel to move, as before mentioned, thus moving the levers *d d'*, which operate the harnesses by the cords *e e'*. As these pieces *a a'* are brought forward the lower side comes in contact with the cam-surfaces *k k*, causing these catches to be thrown out from the notches in the wheel.

My other improvement consists in attaching the lathe to the arm G by means of the side connections, *K' K'*, so that by one motion of the treadle the woof is beaten up and the warp placed in the proper position by the harnesses to receive another straw or woof.

Now, having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of mechanism for moving loom-harnesses, consisting of the treadle E, arm G, pieces *a a'*, wheel H, levers *d d'*, and cords or similar connections *e e'*, when arranged and operating substantially in the manner herein set forth.

2. Connecting the arm G both to the lathe D and to the harness-operating devices, as shown, so that it may actuate both simultaneously, substantially as herein described.

A. L. ANDERSON.

Witnesses:

J. B. GARDINER,
EDWARD H. HYDE.