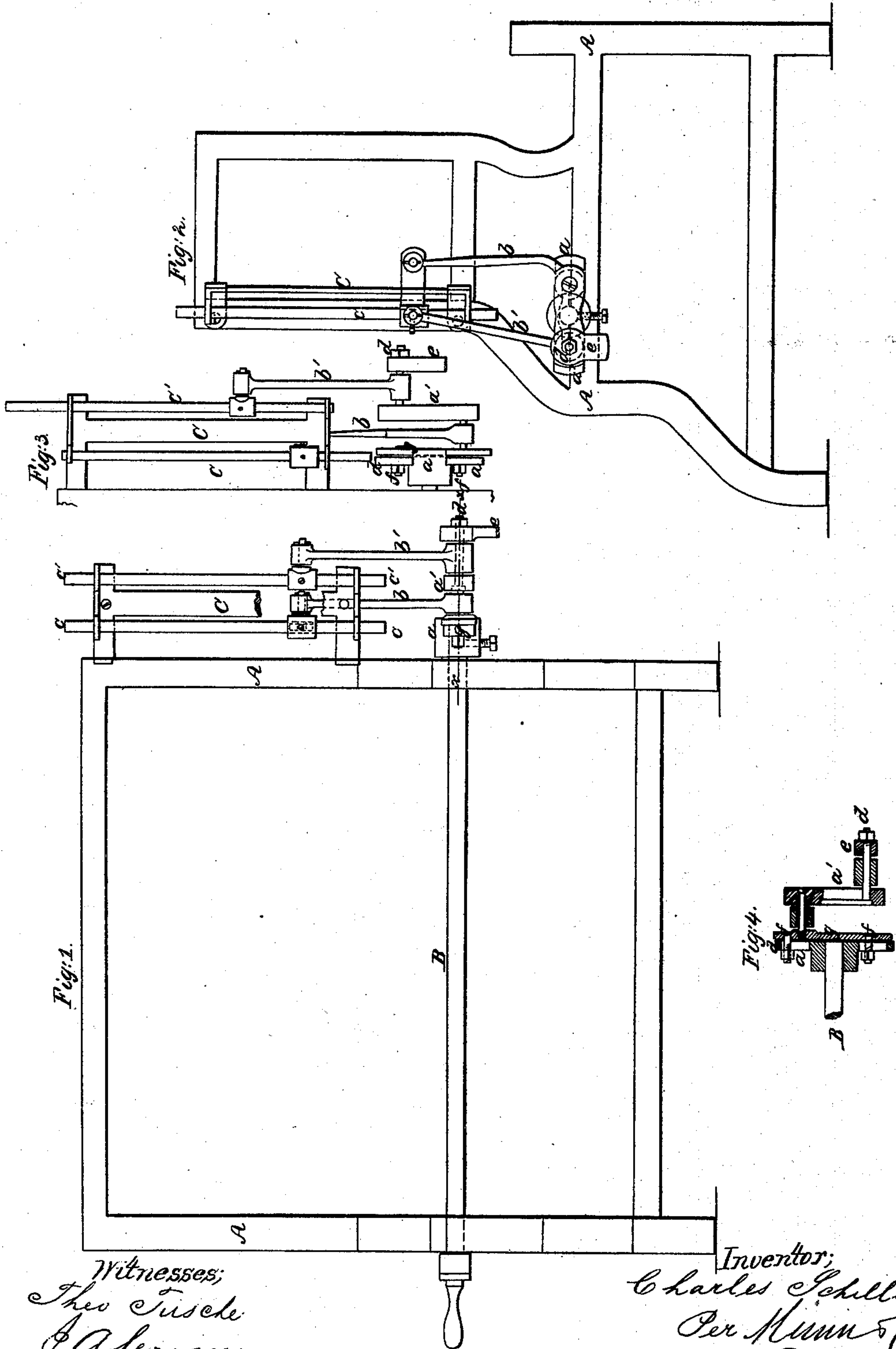


C. Schilling. Shedding.

N^o 68,795.

Patented Sep. 10, 1867.



Witnesses;
Theo Tusch
J. Service

Inventor;
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Per Munn & Co
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United States Patent Office.

CHARLES SCHILLING, OF AUBURN, NEW YORK.

Letters Patent No. 68,795, dated September 10, 1867.

IMPROVEMENT IN HARNESS-MOTION FOR LOOMS.

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, CHARLES SCHILLING, of Auburn, in the county of Cayuga, and State of New York, have invented a new and useful Improvement in Woollen-Looms; 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, forming part of this specification, in which—

Figure 1 is a side elevation of a loom-frame, showing my improvement in machinery attached.

Figure 2 is an end view of the same.

Figure 3 is a detached view of my improvement in another position of movement.

Figure 4 is a section of the reverse cranks $a a'$, taken in the line $x x$, fig. 1.

Similar letters of reference indicate like parts.

This invention relates to a new and improved mechanical device for effecting the shed-motion in power-loom for weaving woollen goods, and consists in the combination and arrangement of the sliding-plate, adjusting-screws, cranks, adjustable pitman-rods, piston-rods, and the standard C, as will be hereinafter more fully described, whereby a more direct action upon the piston-rods to work the jacks is governed by the substitution of a few large crank-joints and connections for a number of small ones, and the consequent saving of friction and wear and tear which involve expense and loss of time in working the loom. A further advantage results from my improvement, by which the motion is easier, and tender yarns can be woven with less liability to strain and break than with the ordinary shed-motion.

A represents the skeleton-frame of a loom, in which is hung the horizontal driving-shaft B to work the jacks. On one end of the shaft B are attached the reverse cranks $a a'$, connected by pitman-rods $b b'$, with the vertical piston-rods $c c'$, which have their connections made in the usual way with the top and side jacks of a woollen-loom for lifting the harness and producing the shed-motion. The cranks $a a'$ and the pitmen $b b'$ are made adjustable, to alter the stroke of the pistons and change the shed-motion as desired, as shown in the drawings; and the rods $c c'$ are fitted to slide up and down in a suitable side standard, C. On the end of the wrist-pin d of the outside crank a' is attached a short arm, e , for connection with the rod of the pattern chain, instead of the connection on a separate crank-plate, as usual. The crank a is slotted near its ends d , to receive the adjusting-screws f , which fit into and retain in any desired position a plate, g , upon the face of the crank. This plate is provided with a number of holes to receive the ends of the screw for the purpose of adjusting it to regulate the throw of the pistons.

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

The combination and arrangement of the sliding-plate g , adjusting-screws f , cranks $a a'$, adjustable pitman-rods $b b'$, piston-rods $c c'$, and standard C, substantially as described for the purpose specified.

The above specification of my invention signed by me this 12th day of November, 1866.

CHARLES ^{his} X SCHILLING.
mark.

Witnesses:

WM. F. McNAMARA,
ALEX. F. ROBERTS.