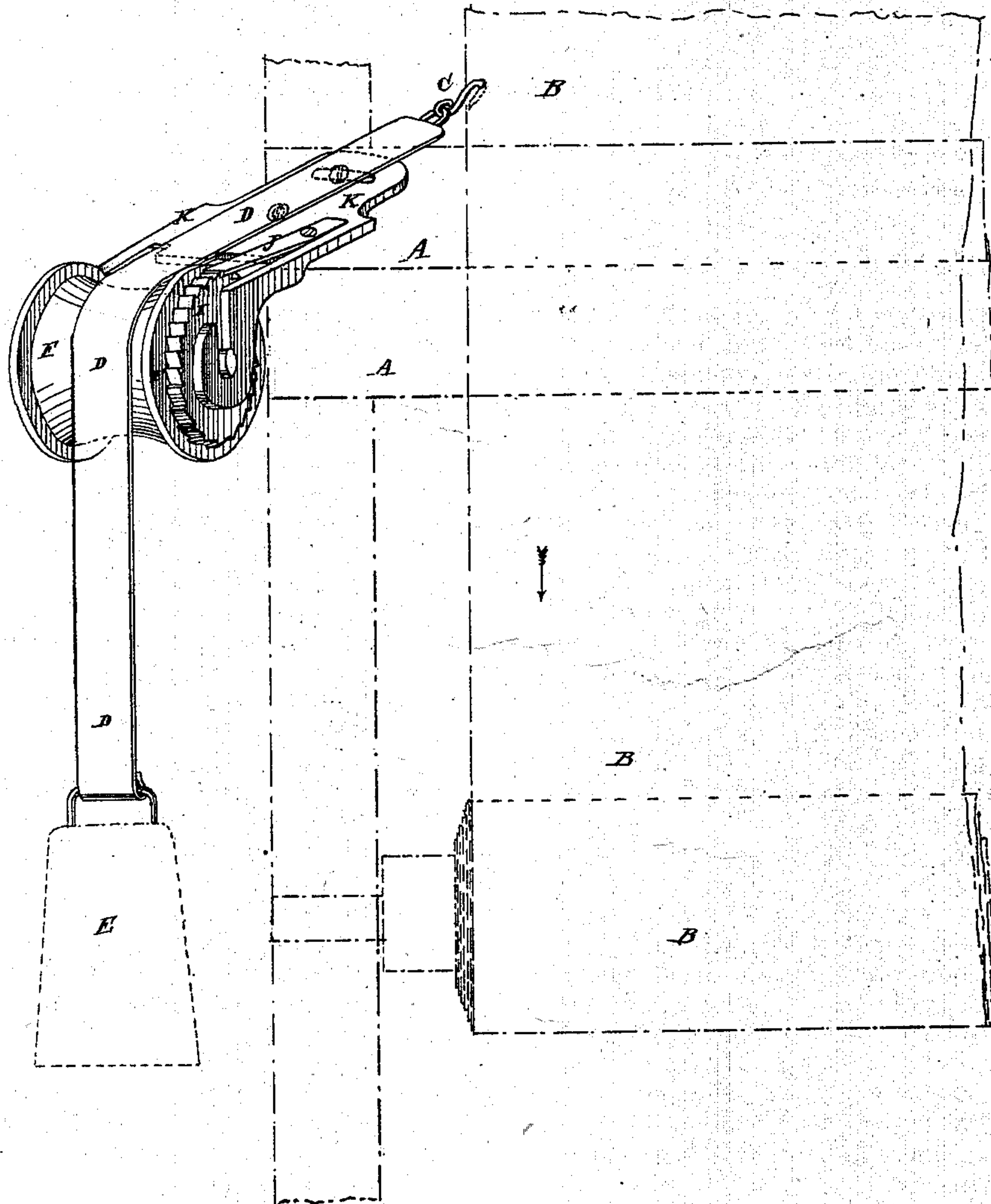


J. C. THICKINS.
Loom-Temples.

No. 146,409.

Patented Jan. 13, 1874.



WITNESSES.

A. W. Almquist.
Alex F. Roberts.

INVENTOR.

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UNITED STATES PATENT OFFICE.

JOHN C. THICKINS, OF WASHINGTON MILLS, NEW YORK.

IMPROVEMENT IN LOOM-TEMPLES.

Specification forming part of Letters Patent No. **146,469**, dated January 13, 1874; application filed December 13, 1873.

To all whom it may concern:

Be it known that I, JOHN C. THICKINS, of Washington Mills, Oneida county, State of New York, have invented a new and Improved Tension Apparatus for Loom-Temples, of which the following is a specification:

My invention consists of a wheel for the weighted strap of a loom-temple, provided with a ratchet and pawl arranged to allow the wheel to turn freely when the weight goes down, to allow the weight freedom to exert all its force without any loss by friction, and to prevent the wheel from turning when the strap is pulled up, so as to add the influence of the friction of the strap on the wheel to the weight for holding the fabric outstretched against the tendency of the tension of the warp to contract it.

The advantages are, first, the same degree of tension is produced on the fabric with a lighter weight; and, second, the action is much more uniform, the cloth being prevented from stretching out and contracting so much with the motions of the lathe. Without this pawl-and-ratchet mechanism the weight is required to be so much greater that it is liable to tear out the selvage if the fabric is a little tender.

The drawing is a front elevation of a portion of a loom, showing the application of my invention.

A is the front beam, B the cloth, C the hook, and D the strap, of the temple; E, the weight; F, the wheel over which the strap passes; I, the ratchet, and J the pawl, for holding the wheel, said ratchet and wheel being

arranged to hold the wheel against being pulled back by the strap, but to allow it to turn freely with a downward motion of the weight, thus adding the friction of the strap on the wheel to the power of the weight for holding the goods outstretched, which allows of lessening the weight to the extent of the effect of the friction, by which the liability of tearing the goods is lessened in the same measure, for with this arrangement the fabric is not stretched out so wide as it would be with the greater weight, but it is held to the extent that it is stretched with the same force that it would be with the greater weight, so that when the lathe goes back and the tension of the warp comes into effect, the tearing strain is not so great as it would be on the fabric more widely stretched by the greater weight. The wheel, and also its ratchet and pawl, may be made of any suitable material, and they may be attached to the loom by a plate, K, or any other suitable means.

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

The combination, with the weighted strap, of a loom-temple of a wheel, having a ratchet and pawl arranged to hold the wheel and subject the strap to friction on it when the strap is pulled up by the cloth, substantially as specified.

JOHN C. THICKINS.

Witnesses:

A. P. THAYER,
PATRICK J. SHORTLE.