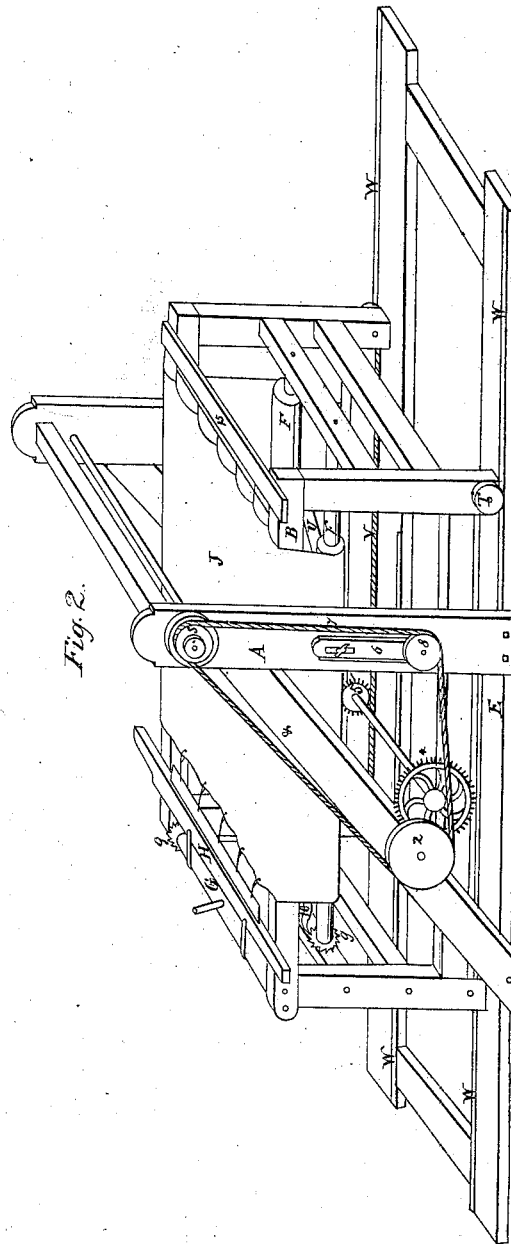
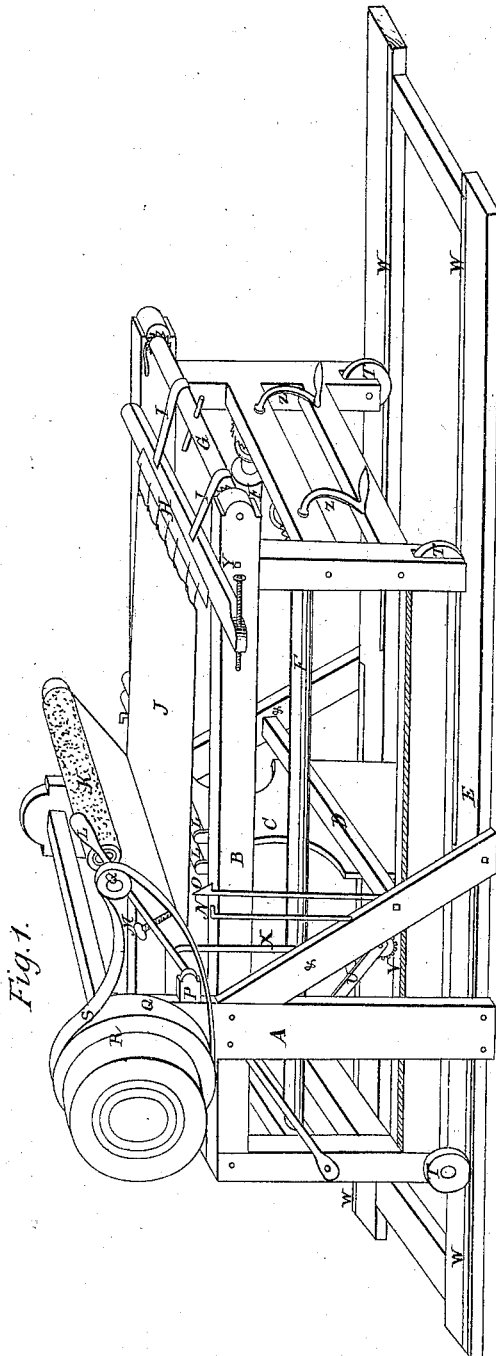


Taylor & Smith.
Cloth Wringing Mach.

N^o 2,605.

Patented May 4, 1842.



UNITED STATES PATENT OFFICE.

JNO. TAYLOR AND JNO. SMITH, OF NEW LEBANON, NEW YORK.

MACHINE FOR NAPPING CLOTH, CALLED THE CROSS-NAPPING MACHINE.

Specification of Letters Patent No. 2,605, dated May 4, 1842.

To all whom it may concern:

Be it known that we, JOHN TAYLOR and JOHN SMITH, of New Lebanon, in the county of Columbia and State of New York, have invented a new and useful machine for Cross-Napping Cloth; and we 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 annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view, and Fig. 2 is the opposite side of the same machine.

In Fig. 1 letter A is the standard for the card frame, letter B is the top rail to carriage frame, letter C is the standard for the two bearing rollers, letter D is a brace to standard C, letter E is the foundation for the railway for carriage to run on, letters FF are two rollers for the cloth to be wound on, letter G is a stretching roller for cloth with a wheel and catch on one end, letter H is a hook board for the cloth to be attached to, II are straps which connect the hook board to the stretch roller G. J is the position of the cloth when in operation, K is the card napper as seen raised from the cloth, LL are two metallic rollers for the cloth to bear on, when machine is in operation. MM are two thumb screws, for regulating the card cylinder on the cloth. NN are two iron standards for the thumb screws to rest upon when in operation. O is a spring catch for lever L to keep the card cylinder down upon the cloth while raising the nap, P is a stud for pivot attached to card frame to raise and lower upon, QQ are a large and small groove pulley for strap S to operate upon, in driving card cylinder. RR are loose and flat pulleys for main driving belt. TTTT are the four carriage wheels. U is a lever for raising the small pinion No. 5 in Fig. 2 that runs on the toothed rack for propelling the carriage and is connected to the card cylinder frame by a strap letter X, V is the toothed rack on the lower rail of the carriage frame. WWW are metallic rails for the carriage wheels to run on. Y is a thumb screw attached to hook board H for releasing card frame from the cloth when it approaches the hooks by striking against catch letter O. ZZ are cranks

attached to rollers FF for winding cloth on. && are braces for standard A.

In Fig. 2 letter A represents the standard for card cylinder. B is the top rail for carriage frame, FF are two rollers to wind cloth on. G is the stretching roller with wheel and catch on one end for stretching cloth. H is the hook board for the cloth to be attached to. J is the position of the cloth when operated upon. TTTT are four carriage wheels. U is a lever for raising pinion 5 from straight segment when card cylinder leaves the cloth. V is a straight segment or lower rail of carriage frame. WW are metallic rails for carriage wheels to run on, attached to foundation frame EE. No. 1 is a groove pulley, cone shaped, on the contrary end of shaft from the groove pulley Q which drives the card cylinder. No. 2 is a groove pulley with a small pinion attached to it, not seen, taking in wheel No. 4. No. 3 is a pulley for tightening band No. 7. No. 4 is a wheel on the opposite end of the pinion shaft 5, driving the carriage. No. 5 is the small pinion working in the straight segment. No. 6 is a movable slide for tightening pulley No. 3. No. 8 is a catch wheel on the cloth roller F for tightening cloth. No. 9 is a catch wheel on stretch roller G. No. 10 is catch to wheel No. 8. No. 11 is a stationary hook board for the list opposite hook board H.

The nature of our invention consists in applying cards for cross napping instead of teazels.

To enable others skilled in the art to make and use our invention we will proceed to describe its construction and operation.

We make use of the frame work formerly used in operating Swift's shearing machine. To this frame we add the two metallic rollers marked LL, as shown in the accompanying drawing, which are situated in a manner so that the cylinder K revolves between them on the cloth. We also apply the cylinder, marked K, in the accompanying drawing, which is covered with cards, and by revolving on the cloth between the metallic rollers LL, raise an even nap across the cloth. By this means we get a level and full nap by reason of the even surface presented to be operated upon and the cards being less

liable to injure the cloth. We also apply the thumb screws MM and the iron standards UU for the purpose of regulating the card cylinder K on the cloth.

5 What we claim as our invention and desire to secure by Letters Patent are—

The application of the cross napper K in

combination with the metallic rollers LL, as seen in the accompanying drawings.

JOHN TAYLOR.
JOHN SMITH.

Witnesses:

HAMPTON C. BULL,
MATTHEW A. IVER.