

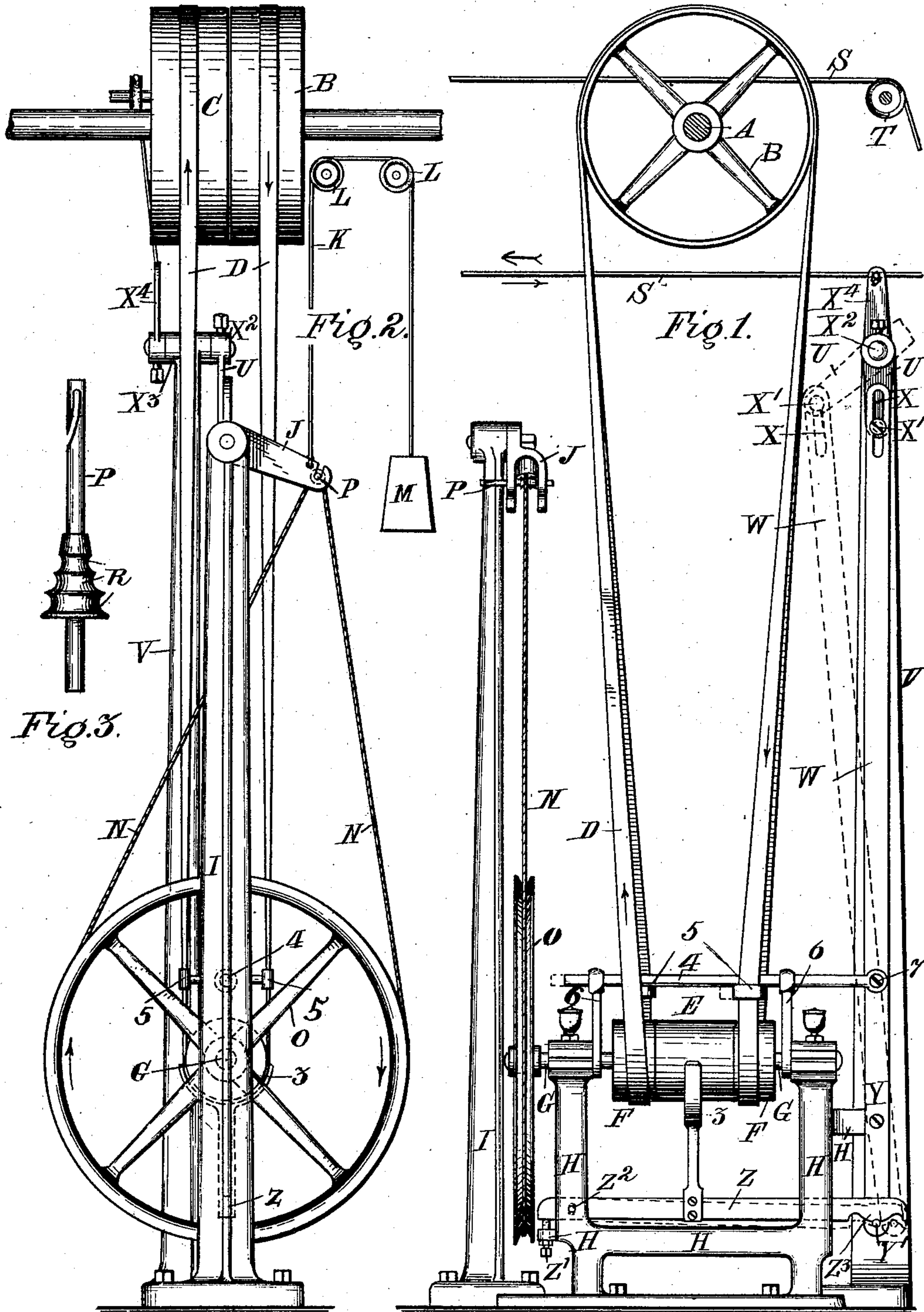
(No Model.)

M. & T. J. PETERS & W. JOHN.

MACHINE FOR SPINNING AND TWISTING CORDS.

No. 365,447.

Patented June 28, 1887.



Witnesses:
Saml. B. Dover.
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UNITED STATES PATENT OFFICE.

MATTHIAS PETERS, THEODORE J. PETERS, AND WILLIAM JOHN, OF
CHICAGO, ILLINOIS.

MACHINE FOR SPINNING AND TWISTING CORDS.

SPECIFICATION forming part of Letters Patent No. 365,447, dated June 28, 1887.

Application filed October 5, 1886. Serial No. 215,353. (No model.)

To all whom it may concern:

Be it known that we, MATTHIAS PETERS, THEODORE J. PETERS, and WILLIAM JOHN, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Machines for Spinning and Twisting Cords, of which the following is a specification.

Our invention relates to improvements in machines for spinning and twisting cords and rope, especially such cords as are used for upholstery work; and the objects of our invention are to devise improved machinery whereby high rates of speed may be imparted to the cord-holding hook, the rotation of the hook may be quickly changed, and the whole may be under the control of the operator while at work. These objects we attain by means of the mechanism illustrated in the accompanying drawings, wherein—

Figure 1 is a front view of the machine with the hook at rest. Fig. 2 is a side view of the same. Fig. 3 is a detail view of the hook.

Like parts are indicated by the same letters in all the figures.

A is a line-shaft carrying the fast pulley B and the loose pulley C.

D is an endless belt which passes over both pulleys, and also over the loose pulleys F F and the fast pulley E on the short shaft G, which is journaled in boxes and supported on the frame H.

I is a standard, having at its upper end the pivoted arm J, flexibly held up by means of the weight M, supported on the cord K, which passes over the pulleys L L.

N is a cord band which passes about the grooved wheel O on the shaft G, and also over the differential pulley R on the hook-spindle P, which is journaled on the arm J.

S is a portion of an endless rope which passes along the entire length of the operator's walk, and is supported by a series of loose pulleys, as T. It is secured to the upper end of a lever-arm, X⁴, which is fastened on the end of a short shaft, X², which is journaled in the box X³ on the support or standard V. U is a similar lever-arm on the opposite end of shaft X².

W is a bar pivoted at Y to the frame H, and having at its upper end a long slot, X, and at its lower end a pin, Y'.

X' is a bolt which passes through the slot X and screws into the end of the lever-arm U. 55

Z is a lever pivoted at Z², and having at one end the projecting lug or double cam Z³, and adapted at the other to engage the set-screw Z'.

3 is a brake rising from and secured to the lever Z, and adapted to bear against the pulley E. 60

4 is a shifting-rod supported on the arms 6 6, and having the keepers 5 5, to secure the belts to it. It is pivoted at 7 to the bar W.

The use and operation of our invention are 65 as follows: The machine is secured at one end of the rope-walk, the various shafts and pulleys being secured as shown, or to suitable hangers and brackets. In the position shown in Fig. 1 the line-shaft and belt D are supposed to be in operation; but the shaft G and hook are idle because the brake bears against the pulley E and the belt is running on the loose pulleys F F. The operator attaches one 70 end of the rope or cord to be twisted or wrapped to the hook. He then draws the cord S in the direction of the arrow below it. This moves the lever-arm X⁴, rotates the shaft X², and throws the lever-arm U into the position shown in dotted lines in Fig. 1. This action of course 80 moves the bar W, the pivot X' sliding in the slot X, and the pin Y' passes down the cam Z³, lowers the lever Z into the position shown in dotted lines, frees the pulley E, and at the same time shifts the belt D, so that it runs on 85 the right-hand edge of the pulley E, thus rotating the shaft G and wheel O in the direction indicated by the arrow. Thus the hook is rotated toward the right. Should the operator now desire to reverse this motion, he 90 pulls the cord S in the direction indicated by the arrow above it. This motion in the first instance restores the parts to the position shown in full lines in Fig. 1, and then carries it over until the parts assume a position opposite to but similar to that shown in Fig. 1 95 by the dotted lines. The lever Z of course will be as shown in said dotted lines, but the pin Y' will be on the opposite side of the cam Z³. At the same time the belt will be shifted 100

so that it will run on the left edge of the pulley E and rotate the wheel and hook in the opposite direction. By adjusting the set-screw Z' the play of the lever Z may be varied at will. To change the hook, it is only necessary to hold the arm J down until a new hook can be substituted, the band being put over the differential pulley before the hook-spindle is placed in its bearings. The weight serves to keep the belt N tight.

We claim—

1. The combination of a supporting-frame, a shaft having a central fast pulley and two loose pulleys, one on each side thereof, and a driving-wheel at one end with a line-shaft and one fast and one loose pulley thereon, and an endless belt in two folds arranged so as to run in opposite directions on the loose pulleys and either fold to be shifted at will onto the fast pulley, a hook-spindle, and a driving-cord which passes over the driving-wheel to the hook-spindle.

2. The combination of a supporting frame, a driving-shaft thereon having one fast pulley and on each side thereof a loose pulley, with a line-shaft having one fast and one loose pulley thereon, an endless belt which runs on the two line-shaft pulleys and on the two loose pulleys of the driving-shaft, a shifting-rod adapted to throw either fold of the belt onto the fast pulley of the driving-shaft, a hook-spindle and a wheel and belt which communi-

cate the motion from the driving-shaft to the hook-spindle.

3. The combination of a driving-shaft having fast and loose pulleys thereon, with a supporting-frame, a line-shaft having one fast and one loose pulley, an endless driving-belt which passes about the pulleys on the line and driving shafts, a brake-shoe adapted to engage the fast pulley on the driving-shaft, a shifting-bar adapted to alternately throw each fold of the belt onto the fast pulley, a driving-wheel on the driving-shaft, a hook-spindle suitably journaled, and a belt from the driving-wheel to the spindle, a pivoted arm, a brake and shifting-bar, respectively attached to the lever Z and the arm X', as shown, and a cord attached to such arm, so that by pulling the cord in either direction the brake will be applied so as to stop the driving-shaft, and the folds will then be shifted so as to start the shaft in the opposite direction.

In testimony whereof we have hereunto set our hands, at Chicago, Illinois, this 2d day of October, A. D. 1886, in the presence of two witnesses.

MATTHIAS PETERS.
THEODORE J. PETERS.
WILLIAM JOHN.

Witnesses:

FRANCIS W. PAKKER,
G. G. JACKSON.