

(No Model.)

J. B. DESNOYERS & C. SINNING.

BRAKE MECHANISM FOR SEWING MACHINES.

No. 291,700.

Patented Jan. 8, 1884.

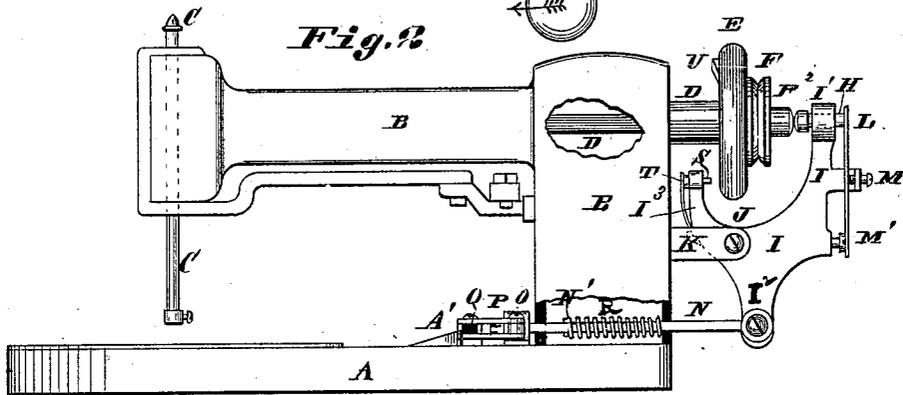
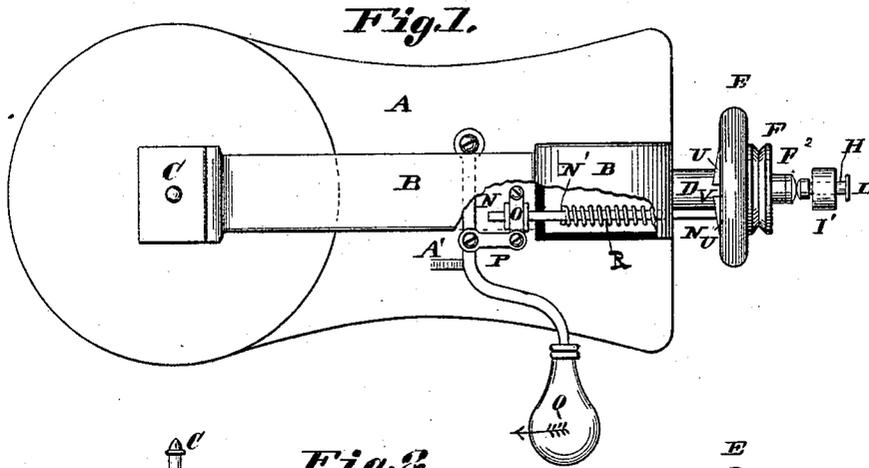


Fig. 5.

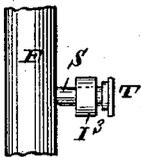


Fig. 6.

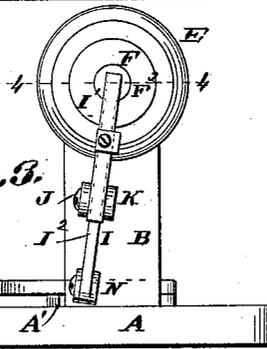
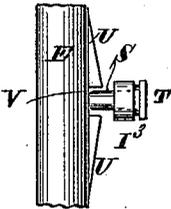


Fig. 7.

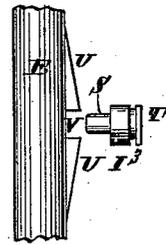
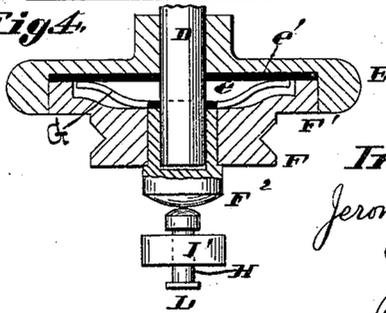


Fig. 4.



Attest!
 Benj. A. Knight
 Sewing Machine Co.

Inventors:
 Jerome B. Desnoyers
 Charles Sinning
 By Knight & Co.
 Attys.

UNITED STATES PATENT OFFICE.

JEROME B. DESNOYERS AND CHARLES SINNING, OF ST. LOUIS, MISSOURI.

BRAKE MECHANISM FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 291,700, dated January 8, 1884.

Application filed October 31, 1883. (No model.)

To all whom it may concern:

Be it known that we, JEROME B. DESNOYERS and CHARLES SINNING, both of the city of St. Louis and State of Missouri, have invented a certain new and useful Improvement in Sewing-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

Our improvement relates to a sewing-machine brake, and the same is shown applied to a sewing-machine in which the belt has continuous movement, as in machines driven by "power," although the improvement may be applied to hand-machines.

The invention consists in a braking device which will always bring the machine to rest when the needle is elevated.

Figure 1 is a top view of sufficient part of a sewing-machine to illustrate our invention, part being broken away. Fig. 2 is a side view with part broken away. Fig. 3 is a rear elevation. Fig. 4 is an enlarged section at 4 4, Fig. 3. Fig. 5 is a detail showing the brake-pin in contact with the fly-wheel. Fig. 6 is a detail showing the brake-pin within the brake-notch. Fig. 7 is a detail showing the position of the brake-pin relatively to the fly-wheel when the machine is running.

A is the bed-plate; B, the goose-neck; C, the needle-bar, and D the needle-driving shaft.

E is the fly-wheel, which is made fast to the shaft D. The fly-wheel has in the rear side a central recess, *e*, that receives the friction-flange *F'* of the grooved pulley *F*, over which the driving-belt passes. When the parts are in the position shown in Figs. 1, 2, and 4, the friction-disk *F'* bears against the bottom of the recess *e*, or a friction-plate, *e'*, and thus the rotary motion of the pulley *F* is communicated to the wheel *E*. When the pulley is not forced against the fly-wheel, a spring, *G*, acts to force the friction-surfaces of the pulley and fly-wheel asunder, so that the pulley does not actuate the wheel. The pulley *F* has a central boss, *F''*, against which presses a pin, *H*, that is movable in the upper end of an arm, *I'*, of a lever, *I*. The lever *I* is fulcrumed at *J* to a bracket, *K*, extending from the rear of the goose-neck.

L is a spring bearing against the rear end

of the pin *H* and forcing it against the boss *F''*. The force of the spring is regulated by means of screws *M M'*, by which it is attached to the arm *I'*.

N is a connecting-rod engaging with the lower arm, *I''*, of the lever *I*, the other end being connected to a hand-lever, *Q*, by a clip, *O*, and link *P*, or other means.

R is a spiral spring upon the rod *N*, one end of said spring bearing against the inner side of the goose-neck and the other end against a pin or collar, *N'*, so as to draw the arm *I''* toward the bed-plate *A* when the lever *Q* is released from the inclined catch *A'*, by which the parts are held in the position shown in Figs. 1, 2, 3, 4. When the lever is disengaged from the catch *A'* and the spring *R* allowed to act, the arm *I'* and pin *H* are thrown backward and the friction-disk *F'* thrown out of frictional contact with the fly-wheel, so that the latter may be brought to rest.

I''' is an arm of the lever *I*, extending up between the goose-neck and the fly-wheel. In the upper end of the arm *I'''* is a movable brake-pin, *S*, with a spring, *T*, bearing thereon, so as to force the pin toward the fly-wheel. The backward movement of the arm *I'''* (as the lever *I* is moved by the spring *R*) brings the brake-pin *S* in contact with the fly-wheel, and it acts as a brake thereon to check the motion of the wheel. Upon the inner side of the fly-wheel are two jaws, *U*, inclined upon the outer sides, whose ends are about at right angles with the face of the wheel *E*, thus forming a notch or gap, *V*, to receive the point of the brake-pin to bring the fly-wheel to a standstill. The position of the brake-pin when brought in contact with the fly-wheel to check its motion is shown in Fig. 5. In Fig. 6 the pin is shown in the notch. In Fig. 7 the relative positions of the pin *S* and fly-wheel when the machine is running are shown. The position of the jaws upon the fly-wheel is such that the machine is always brought to a stop when the needle is elevated, so that the work is left free for removal. In case it is preferred to stop the machine when the needle is in other position, the parts may be arranged accordingly.

We claim herein as our invention—

1. The combination, in a sewing-machine,

of a fly-wheel having a notch therein, and a brake constructed to enter said notch, substantially as and for the purpose set forth.

2. A sewing-machine brake having the following elements: a brake-lever with spring-brake S T working therein, and a fly-wheel with inclined jaws U upon its face, substantially as and for the purpose set forth.

3. The combination, in a sewing-machine, of fly-wheel E, with jaws U, friction drive-

wheel F, lever I, with arm I', with push-pin H, brake-arm I², with brake S T, arm I³, rod N, spring R, hand-lever Q, connected to rod N, and catch A', substantially as set forth.

JEROME B. DESNOYERS.
CHAS. SINNING.

Witnesses:

SAML. KNIGHT,
GEO. H. KNIGHT.