

(No Model.)

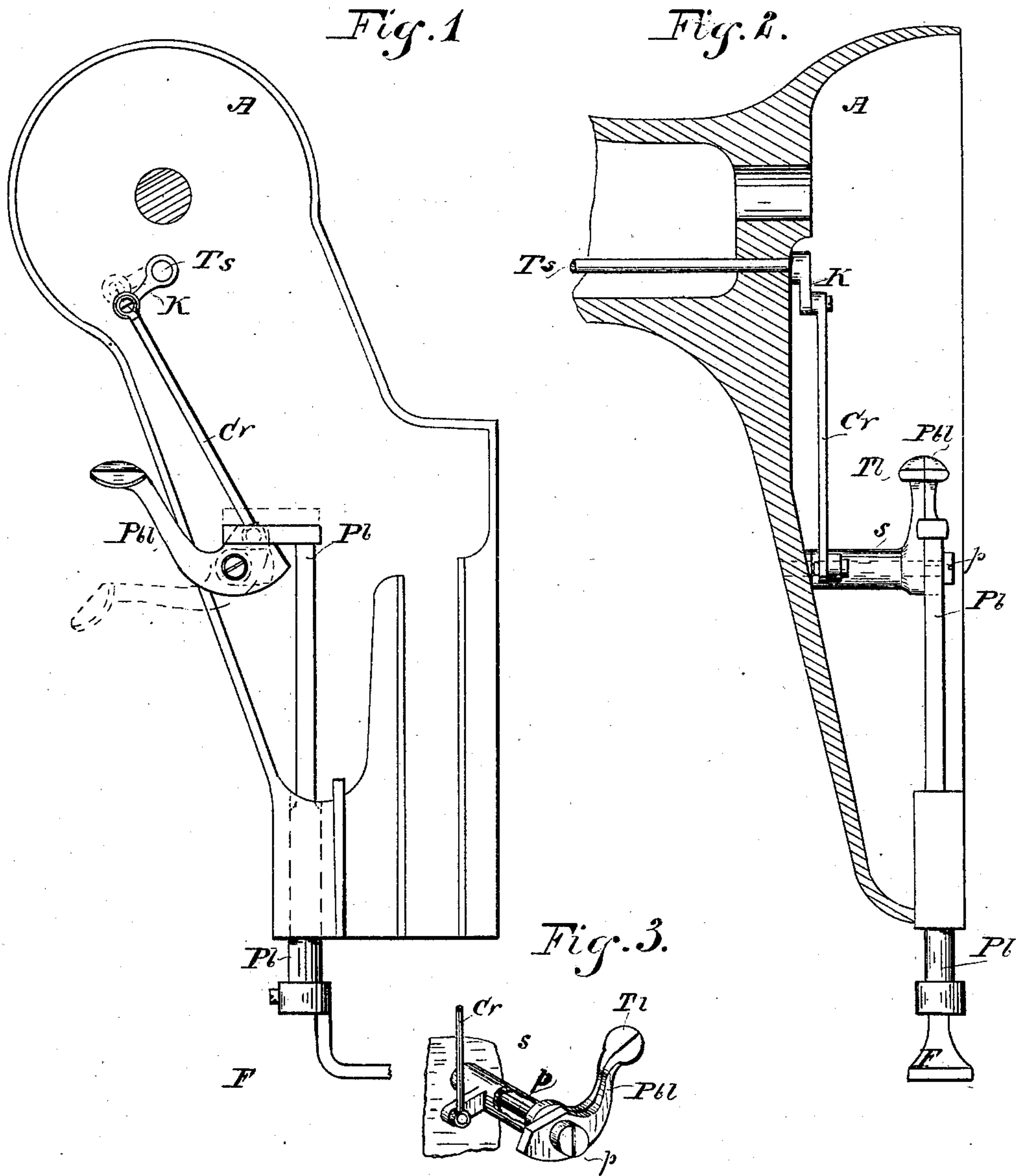
2 Sheets—Sheet 1.

J. J. WHEAT.

TENSION LIBERATOR FOR SEWING MACHINES.

No. 285,535.

Patented Sept. 25, 1883.



WITNESSES.

Jacob W. Looper  
Charles S. Spritz

INVENTOR.

John J. Wheat  
By C. F. Jacobs  
att'y.

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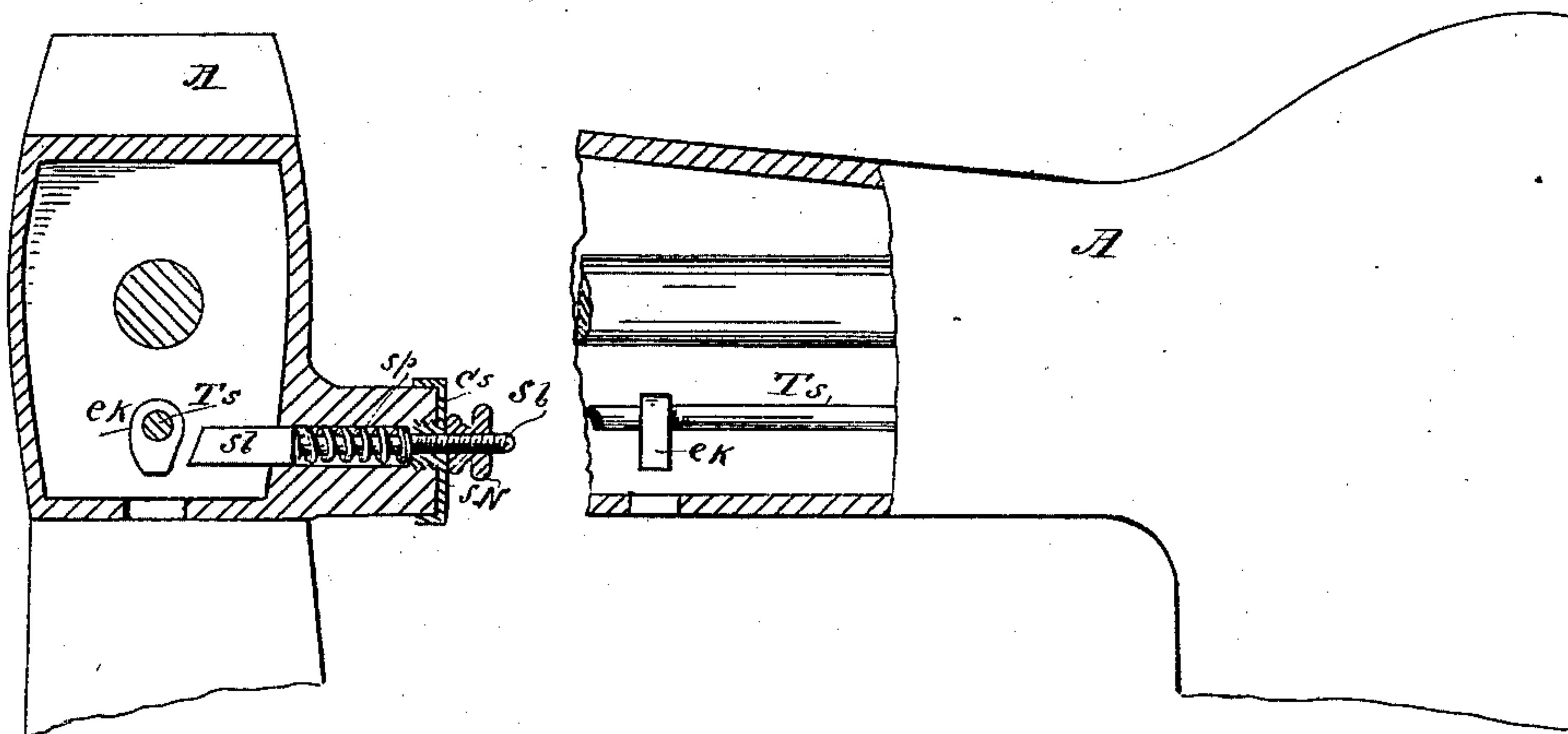
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*Fig. 4.*

*Fig. 5.*



WITNESSES.

*Jacob W. Looper*  
*W. B. S. S.*

INVENTOR.

*John J. Wheat*  
*By C. F. Jacobs*  
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# UNITED STATES PATENT OFFICE.

JOHN J. WHEAT, OF INDIANAPOLIS, INDIANA, ASSIGNOR TO CHARLES LILLY, OF SAME PLACE.

## TENSION-LIBERATOR FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 285,535, dated September 25, 1883.

Application filed March 24, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN J. WHEAT, of Indianapolis, Indiana, have invented a new and useful Improvement in Devices for Liberating the Tension and Raising the Presser-Bar in Sewing-Machines, of which the following is a description, reference being made to the accompanying drawings, in the several figures of which like letters indicate like parts.

My invention is designed to provide a simple and easy means of liberating the tension of the thread, and at the same time to enable the operator, if he desires, to lift the presser-bar by a separate device conveniently located contiguous to the former, as will be readily seen by the following description.

Figure 1 is a front elevation of the head with the face-plate removed. Fig. 2 is a rear view, showing the levers and their connections, the head itself being shown in cross-section, or cut away, to allow the other parts to be seen. Fig. 3 is a detail view of the levers, with a part of the sleeve broken out, showing the pin. Fig. 4 is a vertical cross-section of the arm, showing the cam on the tension-shaft and the spring-bar and cap. Fig. 5 is a side view of a part of the arm, showing in part in horizontal section the tension-shaft and cam and the revolving shaft above it.

In detail, A is the stationary arm of the machine. Ts is the tension-shaft, carrying the cam *ek*. *sb* is a spring-bar working in a boss on the arm and through the cap *cs* and tension-nut *Sn*, which latter works on a thread on the spring-bar, and is for adjusting the pressure upon the spring *sp*. The tension-shaft Ts terminates in a crank, K, having a connecting-rod, Cr, which works on a pin having bearings in an arm rigidly connected to a sleeve, S, which has a thumb-lever, Tl, integral with such sleeve, the latter rotating upon a pin, *p*, screwed into the stationary arm. Side by side with the tension thumb-lever Tl is a twin lever, Pbl, mounted on the same pin, which lifts the presser-bar Pb by means shown in Fig. 1.

It will be seen upon examination of Fig. 3 that the operator may readily, by the pressure of the thumb, move both the tension and

presser-bar levers simultaneously, and that they are also adapted to be moved independently of each other.

The tension device shown in Fig. 4 is only given by way of illustration, and I make no claim to it, and do not intend to limit myself to the use of a similar device in connection with my invention. In this, however, the thread passes between the cap *cs* and the boss on the arm, and when by the movement of the tension-shaft, operated through the thumb-lever Tl, the cam *ek* is thrown up against the end of the spring-bar *sb* the latter is pushed out, carrying with it the cap *cs* away from the face of the boss, freeing the thread from pressure and loosening it. When the cam is removed, the coiled spring exerts its force, the bar *sb* moves back, bringing the cap *cs* against the face of the boss, clamping the thread sufficiently to make the required tension. The latter may be regulated by the screw-nut *Sn* when desired.

What I claim, and desire to secure by Letters Patent, is the following:

1. In a tension-liberating device for sewing-machines, the combination, with a tension device, of a shaft leading therefrom through the arm to the head and terminating in a crank, said crank connected with a sleeve mounted upon a pin upon the head of the machine capable of being rotated, so as to actuate the crank, and a thumb-lever connected with the sleeve for actuating the same, substantially as described.

2. The presser-bar lever Pbl, the presser-bar Pb, in contact with said lever, the pivot *p*, on which said lever is mounted, the thumb-lever Tl, the sleeve S, on which said thumb-lever is mounted, the crank-rod Cr, crank K, tension-shaft Ts, and a tension device, all combined and operating substantially as described.

In witness whereof I have hereto set my hand this 17th day of March, 1883.

JOHN J. WHEAT.

Witnesses:

C. P. JACOBS,  
C. S. SPRITZ.