

(No Model.)

J. H. PALMER.

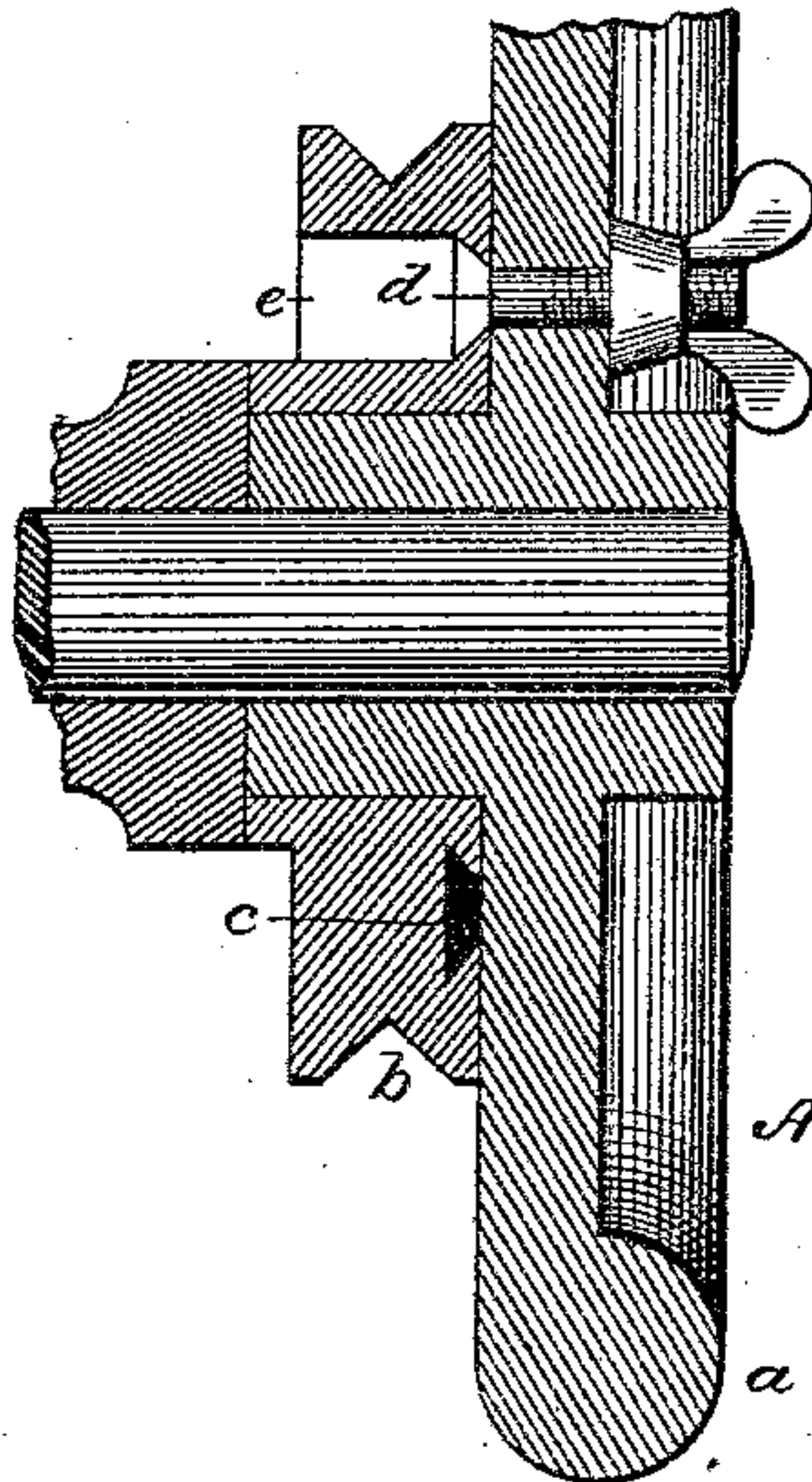
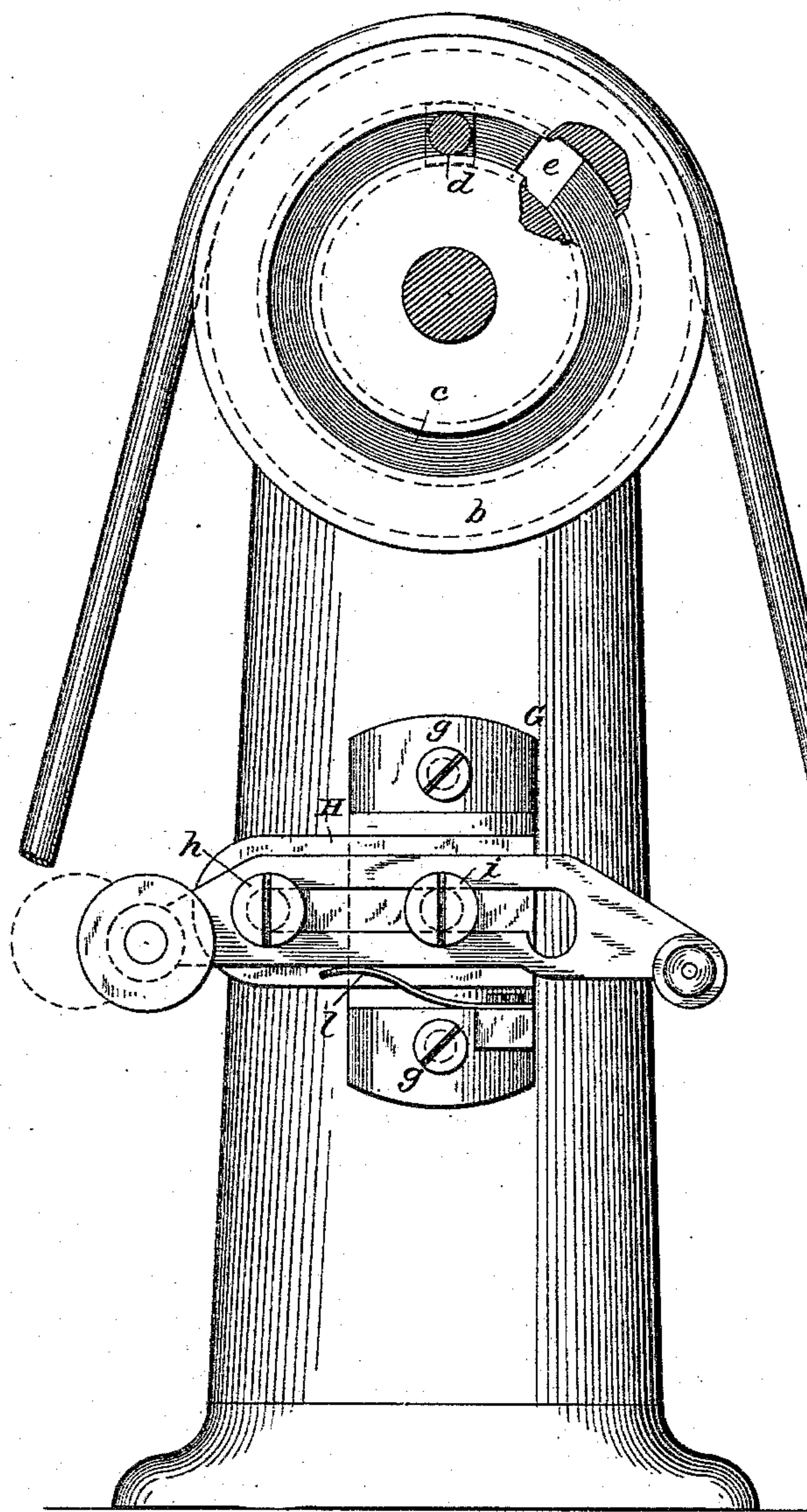
DRIVING PULLEY FOR SEWING MACHINES.

No. 301,456.

Patented July 1, 1884.

*Fig. 1.*

*Fig. 2.*



WITNESSES

*Wm. L. Spinden.*  
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# UNITED STATES PATENT OFFICE.

JOHN H. PALMER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE AMERICAN BUTTONHOLE, OVERSEAMING AND SEWING MACHINE COMPANY, OF SAME PLACE.

## DRIVING-PULLEY FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 301,456, dated July 1, 1884.

Application filed May 19, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN H. PALMER, of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Driving-Pulleys for Sewing-Machines and other Light Machinery, of which the following is a specification.

In the accompanying drawings, Figure 1 is an end view of a sewing-machine head or frame, illustrating the driving-pulley partly in section; and Fig. 2 is a section showing the means for connecting and disconnecting the driving-pulley and driving-shaft of the machine.

The enlarged or balance-wheel part *a* of the driving-pulley A is keyed on the driving-shaft of the machine, while the grooved loose pulley *b*, which is driven by the band of the machine, rotates loosely on a hub formed with the part *a* between the balance-wheel and the frame of the machine. An annular dovetailed recess, *c*, is formed in the face of the grooved pulley *b* next the balance-wheel *a*. The correspondingly-shaped head of a bolt, *d*, runs loosely in this annular dovetailed recess. The bolt is inserted through an aperture, *e*, in the pulley *b*, and, passing through the wheel *a*, is provided on its outer end with a thumb-nut. When the thumb-nut is loosened, the pulley *b* will rotate without driving the wheel *a* and the main shaft of the machine, because the head of the bolt will run loosely in the dovetailed recess in the bolt-pulley. When the thumb-nut is screwed up, however, the two wheels are firmly clamped together.

This device in sewing-machines may be used for the purpose of operating bobbin-winders. Such a bobbin-winder is illustrated in the lower half of Fig. 1. The winder is mounted on a bracket, G, which is formed with two ears or plates, *g*, which are bolted to the frame of the machine, and a horizontal laterally-pro-

jecting plate, H. This plate carries two set-screws, *h i*, on which the horizontally-slotted bobbin-winder frame slides. The slotted bobbin-frame carries on one end a grooved pulley adapted to engage with the driving band or cord of the machine to actuate the bobbin-winding spindle. The opposite end of the frame is preferably provided with a suitable handle for moving it back and forth. At the end of the slot in the frame nearest the handle there is a depression, into which the screw *i* fits when the bobbin-frame has been thrust sufficiently forward, the frame being thrown up against the screw by a spring on the bracket. In this position the pulley will be in engagement with the band of the machine, and bobbins may be wound.

A bobbin-winder has been illustrated and described merely as showing a useful application of the fast-and-loose-pulley arrangement in sewing-machines. The bobbin-winder, however, forms no part of the subject-matter claimed in this application, but is covered by another application filed by me on the 8th day of March, 1884, No. 123,523, of which case this application constitutes a division.

I claim as my invention—

The combination, substantially as set forth, of the driving-shaft, the wheel fast thereon, the loosely-revolving pulley having a dovetailed annular recess in its side or face adjacent to said wheel, and the bolt which passes through the fixed wheel and has a clamping-head which runs in the annular recess in the pulley.

In testimony whereof I have hereunto subscribed my name.

JOHN H. PALMER.

Witnesses:

SAML. WILCOX,  
W. M. BALDWIN.