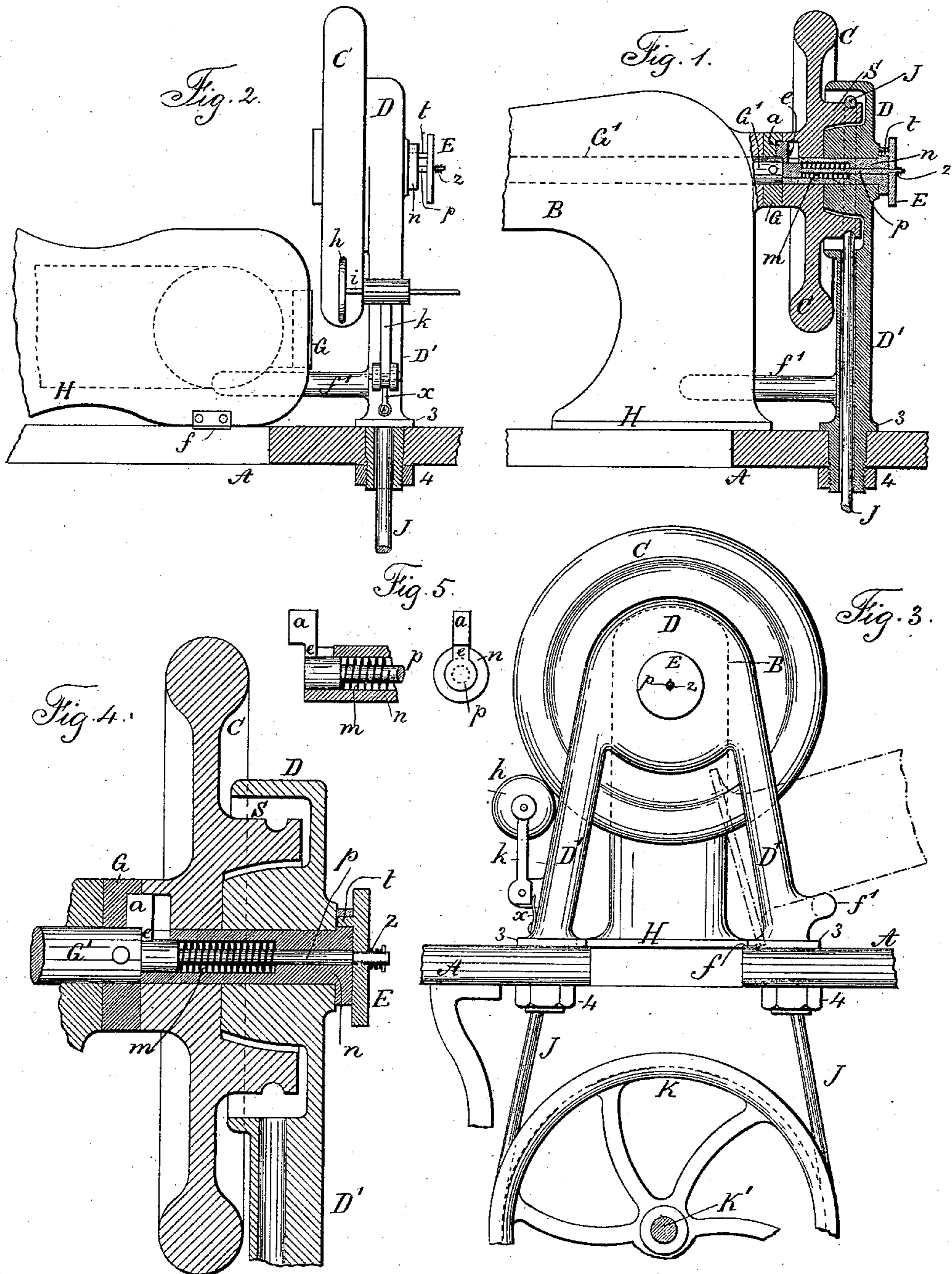


(No Model.)

C. T. JONES.
SEWING MACHINE.

No. 285,136.

Patented Sept. 18, 1883.



Witnesses
J. Staib
Chas. N. Smith

Inventor
Charles T. Jones
per Lemuel W. Perrell

UNITED STATES PATENT OFFICE.

CHARLES T. JONES, OF UTICA, NEW YORK.

SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 285,136, dated September 18, 1883.

Application filed May 29, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHARLES T. JONES, of Utica, in the county of Oneida and State of New York, have invented an Improvement in Sewing-Machines, of which the following is a specification.

Sewing-machines have been made with double fly-wheels—one for the driving-belt, the other for the main shaft of the sewing-machine—and there has been an intermediate connection, so that the sewing-machine can be disconnected and swung back when access is required to the parts below the bed.

My present invention is adapted to sewing-machines in which the driving-shaft is in the arm that rises above the bed, and in this improvement the fly-wheel is connected to or separated from the sewing-machine shaft, and when separated therefrom the fly-wheel can be used for revolving the bobbin-winder, or the bed of the machine can be swung over to give access to the parts below it.

In the drawings, Figure 1 is a section of the fly-wheel and support. Fig. 2 is an elevation with the machine swung over on the side. Fig. 3 is an elevation endwise of the shafts. Fig. 4 is a section in larger size of the fly-wheel and shaft, and Fig. 5 is a section and end view of the lock.

The table A receives upon it the bed H of the sewing-machine, the parts being connected by hinges *f*. Upon the bed H there is the usual hollow arm, B, containing the main shaft G', at the end of which a locking disk or collar, G, is permanently fastened.

The motor-shaft K' and fly-wheel K are of ordinary character, and they are below the table, and are driven by a treadle or by power.

The hollow case D is preferably supported by tubular legs D', that pass through the table, and are provided with collars or flanges at 3 and clamping-nuts at 4. These tubular legs are in the line of the driving-belt J, that passes from the wheel K over the grooved pulley S of the fly-wheel C, so that such belt passes through the tubular legs; or said legs, however, may be trough-shaped, so as to partially cover the belt. The fly-wheel C is upon a shaft or axis, *n*, that is supported by and revolves in the hub portion of the case D, and the grooved pulley S is recessed for the reception of the hub of D, so that the strain of the belt J does

not tend to bind the shaft *n* in its bearing within said hub; but such shaft and pulley S and fly-wheel C are free to be rotated by the action of the belt J. The shaft *n* is in line with the shaft G', except when the sewing-machine is swung over upon its hinges to give access to the under part of the machine. The locking disk or collar G is against the hub of the fly-wheel when the sewing-machine is in position for use; but the fly-wheel is free to revolve without moving the sewing-machine, except when locked to the disk G by a suitable locking device under the control of the operator.

The locking device which I prefer consists of a sliding bolt, *p*, with a crank end, *e*, and locking-block *a*, and the hub of the fly-wheel C is recessed for the reception of the block *a*, and the shaft *n* is perforated for the passage of the bolt *p*. There is a spring, *m*, around the bolt *p*, which tends to project the locking-block *a* into a recess in the disk G, and thereby connect the fly-wheel and shaft with the sewing-machine shaft G', and upon the end of the bolt *p* there is a head, E, by means of which the bolt *p* can be drawn back against the action of the spring *m* and the locking-block *a* removed from contact with the disk G, and thereby the fly-wheel and shaft separated from the sewing-machine shaft; and in order to keep the parts separated the pin *t* in the head E rests against the flanged end of the shaft *n*; but when the locking device is to be engaged with the shaft G', the head E is partially revolved, and the pin *t* passes into a hole in shaft *n*, and the spring *m* projects the bolt and locking-block into contact with disk G. It is preferable to employ a spring, *z*, around the end of the bolt *p*, so that it may yield, if necessary, as the disk is moved and the pin *t* withdrawn and turned aside from the hole in the flanged end of *n*, to keep the bolt back.

In order to revolve the bobbin in winding the lower thread of the sewing-machine for the shuttle, I employ an arbor, *i*, with a roller, *h*, which are carried by an arm, *k*, hinged at its lower end upon one of the tubular legs of the case D, and there is a spring, *x*, that bears against the knuckle of the hinged arm to press the roller *h* into contact with the periphery of the fly-wheel C, or to hold the same out of contact, so that the bobbin-winder can be brought into action while the sewing-machine is being

run or when it is at rest, and the sewing-machine may be swung back without disturbing the fly-wheel or the bobbin-winder, and this bobbin-winder can be rotated in either direction, or it can be swung out of the way when the sewing-machine shaft is coupled to the fly-wheel.

By this improvement the belt always remains upon the pulley of the fly-wheel and does not require to be slipped off when the sewing-machine is turned back. I make use of a projecting finger, f' , extending out from one of the supports D' , upon which the sewing-machine rests when turned over backward. This prevents strain upon the hinges and holds the operative parts of the machine away from contact with the table and allows them to be turned by hand, if necessary.

I claim as my invention—

1. The combination, with the sewing-machine having an arm, B , and shaft G' , of a fly-wheel and its shaft, an elevated support for the same, and a locking device for coupling the fly-wheel to the shaft in the arm of the sewing-machine, and the separate sewing-machine shaft and mechanism for locking the shaft n to the same, substantially as set forth.

2. The case D , tubular legs D' , and connections to the table A , in combination with the

fly-wheel C , pulley, S , and shaft n , substantially as set forth.

3. The arm B , shaft G' , and locking-disk G of the sewing-machine, in combination with the fly-wheel C , pulley S , shaft n , locking-bolt p , and spring m , substantially as set forth.

4. The combination, with the supports D' , case D , and table A , of the band-wheel K , the fly-wheel C , shaft n , and the grooved pulley S , recessed to surround the hub of the case D , substantially as and for the purposes set forth.

5. The combination, with the sewing-machine having an arm above the bed and the driving-shaft in such arm, of the fly-wheel C , shaft n , bolt p , case D , legs D' , bobbin-winder, and arm hinged to the leg D' , substantially as set forth.

6. The combination, with the sewing-machine hinged to the table, of the elevated fly-wheel C , the case D , supports or legs D' , and finger f' , projecting from one of the legs D' , and supporting the sewing-machine when turned back, substantially as specified.

Signed by me this 21st day of May, A. D. 1883.

CHARLES T. JONES.

Witnesses:

JESSE I. THOMSON,
JOHN C. BRADY.