

UNITED STATES PATENT OFFICE.

GEORGE F. STONE, OF MEDFIELD, MASSACHUSETTS.

MOTOR FOR SEWING AND OTHER MACHINES.

SPECIFICATION forming part of Letters Patent No. 331,260, dated November 24, 1885.

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To all whom it may concern:

Be it known that I, GEORGE F. STONE, of Medfield, county of Norfolk, State of Massachusetts, have invented an Improvement in
5 Motors for Sewing and other Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

10 My invention has reference to improvements in motors employed in factories and other places for running sewing and other machines, and which are adapted to set in motion any one or more of the machines, or to
15 stop the same, independent of each other and at the will of the operator.

My invention consists in a motor so constructed that the belt-pulleys through which motion is imparted to the machine may be
20 caused to revolve through the action of a friction-pulley, rigidly connected with a shaft having its journals in a rocking bearing, pivoted to an upright or standard, and adapted to be forced out to place the said friction-wheel in
25 contact with a constantly-rotating driving-pulley fastened to a counter-shaft, the friction-pulley being caused to bear against the driving-pulley by the action of a treadle under the control of the operator, the said friction-wheel retiring from contact with the
30 driven pulley when the operator raises the foot from the treadle, and resuming its normal position through the action of a spring suitably connected to the upright and to the rocking bearing, all of which will be more fully described, and specifically claimed at the
35 end of the specification.

Figure 1 represents a plan or top view of a motor embodying my invention, one of the
40 journal-box covers being turned back. Fig. 2 is a side elevation of the same. Fig. 3 is a rear view with all the shafts and wheels removed, chiefly to show the construction of the journal-bearings; and Fig. 4 is an enlarged
45 section of the journal-boxes, taken on line *x* *x*, Fig. 1.

A represents the bed-plate, provided with slots *a* at each end thereof (only one of which is shown) for the reception of screws *a'*, which
50 are for securing the bed-plate to the floor, and allowing it to be properly adjusted with

relation to the driven pulley B, which is mounted with any desired number of others upon a counter-shaft, *b*. The bed-plate A is further provided with an upright standard, C, having a projection, *c*, to which is pivoted
55 at *d* a V-shaped support, *d'*, having bearings for the journal-boxes D. The inside of these journal-boxes is constructed with shoulders *d'' d''*, (see Fig. 4,) upon which the lower section, *e*, of the journal-bearings rests, and to
60 which the same are secured by the aid of screws *e' e'*. The upper sections, *e''*, of the journal-bearings are screwed to the lower sections by screws *e'' e''*, and the wearing or friction surfaces of both are "leaded" or "bab-
65 bitted," as at *e'*, Fig. 4. A wick, *f*, is passed up through openings in the lower sections, *e*, of the journal-bearings, and touches the shaft E, which carries the friction-wheel F and
70 belt-pulleys G G, over which passes the belt which is to drive the sewing or other machine, its lower end being immersed in a supply of oil placed within the journal-boxes D, (see Fig. 4,) which is drawn up through the said
75 wick by the rapid revolution of the shaft E, and thus automatically lubricating the same. The journal-boxes D are provided with removable covers D', which are held in place by suitable hinges, *d''*. The support *d'* has a
80 projection, *d''*, preferably cam-shaped, which is shown as entering a fulcrum or rest, *d''*, of the standard C, its cam portion or face being acted upon by the wedge *h*, forming part of a wedge-bar, H, which is pivoted to the treadle
85 at *h'*, Fig. 2, its rear upper side bearing against the said rest or fulcrum *d''*. The treadle, pivoted at *i* to the standard C, is made in two pieces, I I', the part I being provided with a counter-balance, *i'*, while the part I' is pivoted
90 to the part I at *i''*, so that when not being used the part I' may be raised out of the way, as shown in dotted lines, Fig. 2. A spring, K, is attached to the supports *d'* at the point *k*, and is also connected to the upright C, and normally keeps the friction-wheel F away from the driven wheel B when the shaft E is not to be rotated. A brake and guard or shield, *k'*, is screwed to the standard C, and partly covers or encircles the friction-wheel F, so as to avoid
100 any possible chance of the operator's clothing coming in contact therewith, and so also as to

constitute a brake to arrest the pulley F when removed from contact with the pulley B.

In operation the foot of the operator is pressed down upon the portion I' of the treadle, thus raising the arm H, which bears against the cam-shaped edge of the projection d' and the rest or fulcrum d², causing the journals to be forced outward, which brings the friction-wheel F in contact with the driven wheel B, imparting motion to the said friction-wheel and to the belt-pulleys G, which, through the belt g, impart motion to the sewing-machine, which is placed in convenient and desired relation with the same upon a suitable table or work-bench.

I claim—

1. The journal-support d', carrying the journal-boxes D, and the shaft E, provided with the friction-wheel F, and pulleys G, in combination with the standard C and spring K, substantially as and for the purposes described.

2. The combination, with the journal-support d', having a projection, d', of a treadle, I I', wedge-bar H, and standard C, provided with a fulcrum or rest for the side h of the wedge-bar H, opposed to the said projection d', substantially as and for the purposes described.

3. The two-part treadle, a wedge-bar H, connected with one part thereof, and a counter-balance, i, in combination with the standard C, pivoted journal-support d', and the shaft and friction-pulley, substantially as and for the purposes described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE F. STONE.

Witnesses:

J. B. HALE,
M. E. BRAMAN.