

GEORGE THOMPSON.

Improvement in Fan Attachment for Sewing-Machines.

No. 115,255.

Patented May 23, 1871

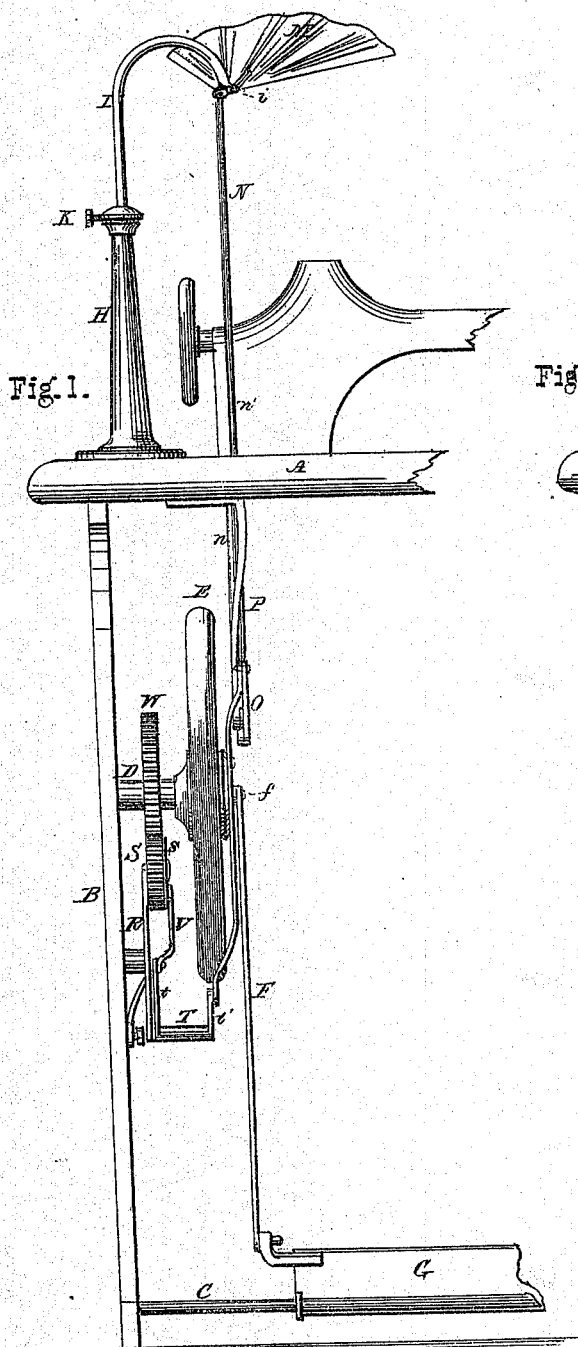


Fig. 1.

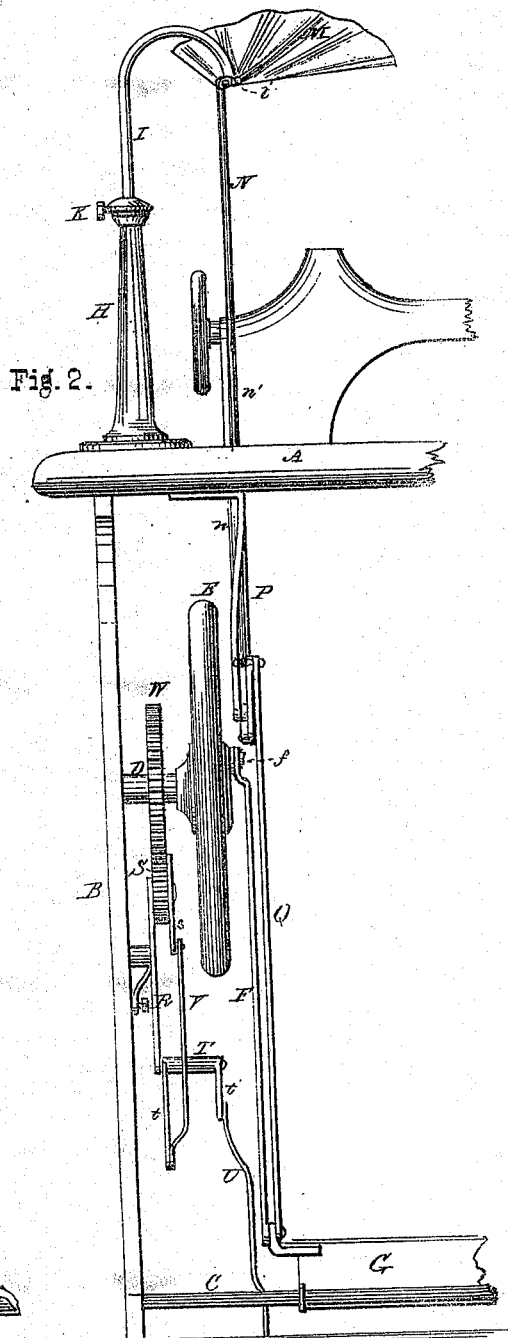


Fig. 2.

Witnesses.

Alfred M. Hale
John B. Young

Inventor.

George Thompson, by
Orinelle and Dyer, Attys.

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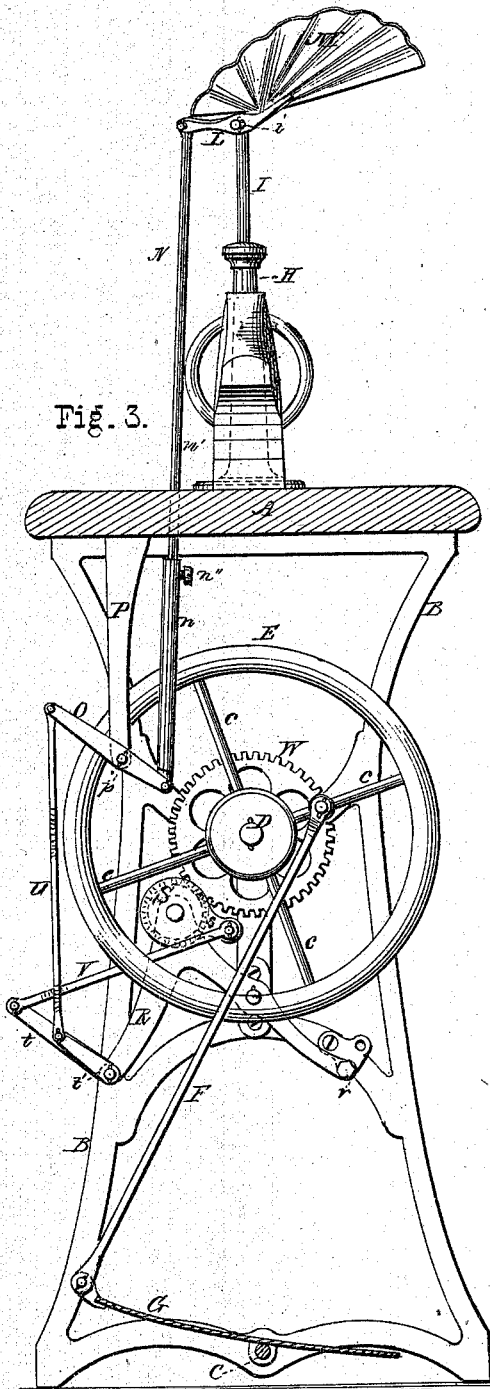


Fig. 3.

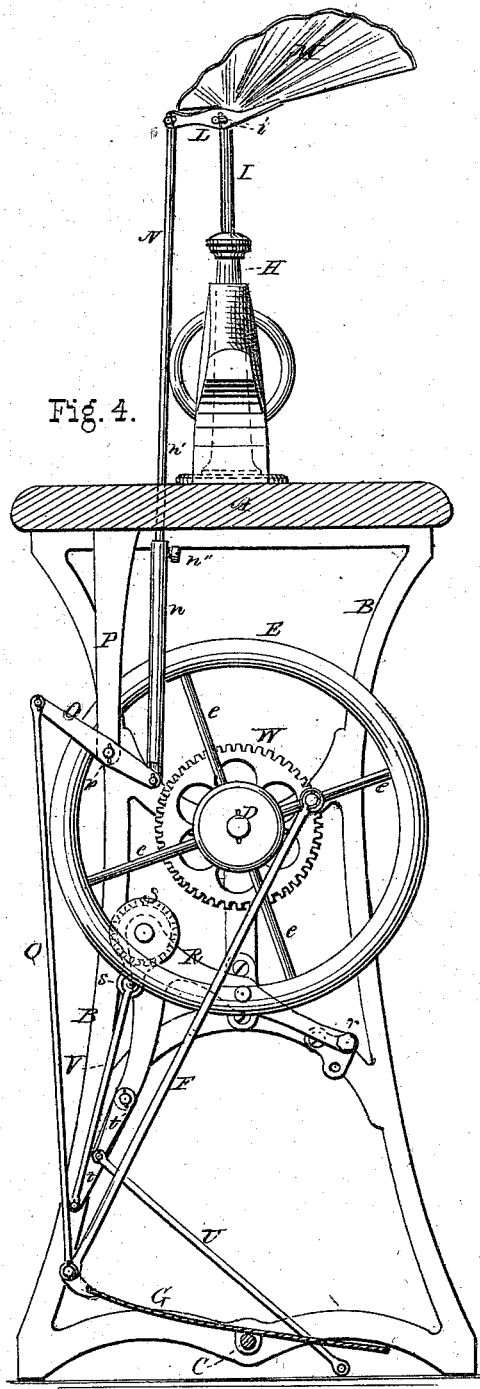


Fig. 4.

Witnesses.

John B. Young

Inventor.

George Thompson, by
Osborne & Lyon Attys.

United States Patent Office.

GEORGE THOMPSON, OF SPRINGFIELD, ILLINOIS.

Letters Patent No. 115,255, dated May 23, 1871.

IMPROVEMENT IN FAN ATTACHMENTS FOR SEWING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, GEORGE THOMPSON, of Springfield, in the county of Sangamon and in the State of Illinois, have invented certain new and useful Improvements in Automatic Fans for Attachment to and Operation by Sewing-Machines; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a rear elevation of a sewing-machine containing my improved fan attachment;

Figure 2 is a like view of said machine, showing the fan-driven directly without the intervention of gearing;

Figure 3 is a side elevation of fig. 1; and

Figure 4, a like view of fig. 2.

Letters of like name and kind refer to like parts in each of the figures.

The object of my invention is to add to the comfort of a sewing-machine operator in hot weather by means of a current of air thrown upon the head, which air is set in motion by a fan actuated by suitable mechanism connected with and driven by the machine; and

It consists in the construction and combination of the various parts of the operating mechanism, substantially as and for the purpose hereinafter shown.

In the annexed drawing—

A represents the table of a sewing-machine resting upon and secured to metal supporting-frames, B, the lower ends of which are connected together by means of a round bar, C.

Projecting horizontally outward from the right-hand frame is a short shaft, D, upon which is pivoted a balance and driving-wheel, E, provided upon one of its arms, e, with a crank-pin, f, having pivoted thereon one end of a connection, F, the opposite end of which is pivoted to or upon the rear end of a treadle, G, that in turn is pivoted upon the cross-bar C, the whole being so arranged as that a reciprocating rocking motion imparted to said treadle by the feet of the operator will cause a rotary movement of said driving-wheel in the usual manner.

Secured to and projecting vertically upward from the table A, to the right of the operating mechanism, is a hollow standard, H, containing a rod, I, the upper end of which extends outward and downward in a curve, and is provided on its outer end with a short horizontal journal, i.

The vertical position of the rod is secured by means of a set-screw, K, which passes horizontally through the upper end of said standard and bears against said rod.

Pivoted loosely upon the journal i is a short lever, L, having secured to or upon its forward end a fan, M,

while to its rear end is pivoted one end of a connecting-rod, N, the opposite end of which is connected with the front end of a lever, O, which in turn is pivoted, at or near its longitudinal center, upon a stud, p, that extends horizontally outward from the lower end of a brace, P, secured to and projecting downward from the bed A.

A second connecting-rod, Q, pivoted to the rear end of the lever O and to the rear end of the treadle G, completes this portion of the mechanism, and causes a corresponding vertical movement of the fan whenever said treadle is moved, so as thereby to create a current of air directly over or upon the head of the operator.

In order that the fan may be driven more rapidly, when desired, the following-described additional gearing is employed, the rod Q being first disconnected from the lever O.

A two-armed lever or frame, R, having a general A-shape, is pivoted near the longitudinal center of one of its arms to or upon the supporting-frame, so as to cause the opposite arm to extend downward and slightly rearward.

To the upper or central portion of the lever is pivoted a pinion, S, having attached to its outer face a crank, s, while to the lower rear end of said lever is pivoted a sleeve, T, provided with two radially-projecting arms, t and t', the latter of which is connected, by means of a rod, U, with the rear end of the lever O, while the arm t is in a like manner connected with the crank s by means of a rod, V.

A gear-wheel, W, secured to and moving with the driving-wheel, and meshing with the pinion S, imparts motion to the latter, which motion is communicated through the crank s, rod V, sleeve and arms T, t, and t', rod U, lever O, connecting-rod N, and lever L, to the fan, which now makes about four double movements to each complete revolution of the driving-wheel.

The lever R is held in position by means of a screw, r, which passes horizontally through the end of its forward arm into the supporting-frame; and in order to throw the pinion out of gear it is only necessary that said screw be removed so as to permit the rear end of said lever to drop slightly downward, after which said screw may be again passed through the arm of said lever, and inserted in a second corresponding threaded opening within the frame.

As the height of the fan above the table requires to be varied to suit the height or convenience of the operator, the rod N is constructed of two sections, the lower half n being hollow, so as to permit the lower end of the upper section n' to pass within.

A set-screw, *n*", passing through the wall of the lower section and bearing against the upper section, enables them to be locked in position when adjusted.

The advantages possessed by this device are that, while comparatively inexpensive and requiring but little power, they add largely to the comfort of the operator.

Having thus fully set forth the nature and merits of my invention,

What I claim as new is—

1. In combination with the treadle G and supporting-rod I, the pivoted levers L and O, the fan M, and the connecting-rods N and Q, substantially as and for the purpose specified.

2. In combination with the driving-wheel E and supporting-rod I, the gear-wheel W, the pivoted levers R and O, the pivoted sleeve T provided with the arms *t* and *t'*, the connecting-rods U and V, and the pinion S provided with the crank *s*, substantially as shown, and for the purpose described.

In testimony that I claim the foregoing I have hereunto set my hand this 8th day of April, 1871.

GEORGE THOMPSON.

Witnesses:

S. M. CULLOM,
GEO. S. THOMPSON.