

J. M. STONE.
Spinning-Frames.

No. 158,143.

Patented Dec. 22, 1874

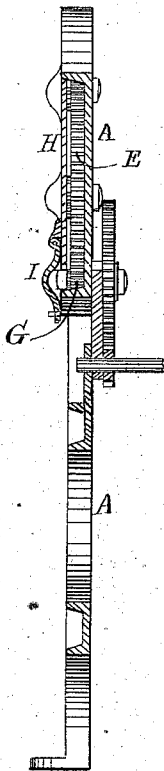


FIG. 2.

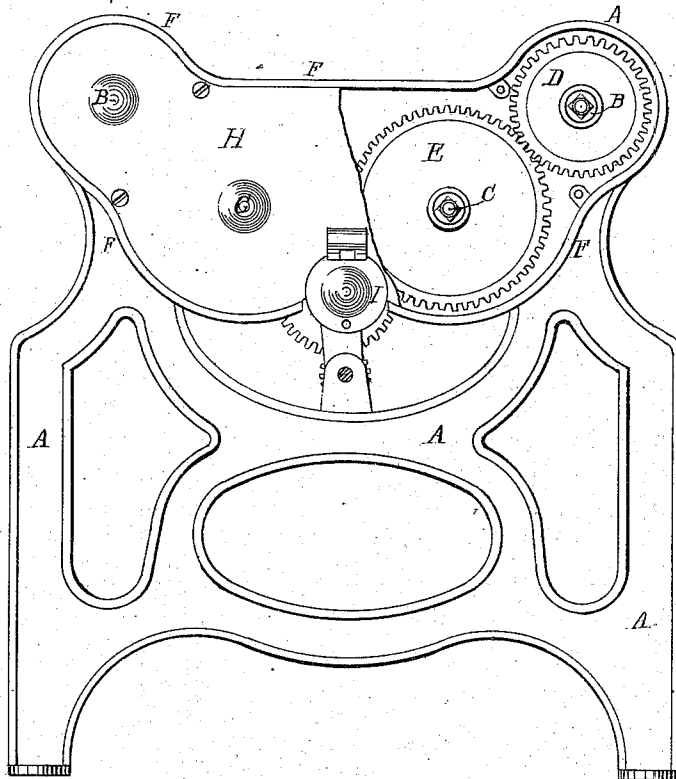


FIG. 1.

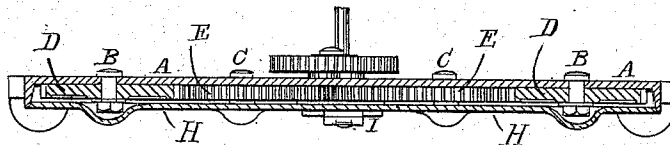


FIG. 3

Witnesses.
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JOSEPH M. STONE, OF NORTH ANDOVER, MASSACHUSETTS.

IMPROVEMENT IN SPINNING-FRAMES.

Specification forming part of Letters Patent No. **158,143**, dated December 22, 1874; application filed November 12, 1874.

To all whom it may concern:

Be it known that I, JOSEPH M. STONE, of North Andover, in the county of Essex and State of Massachusetts, have invented certain Improvements in the Frames of Spinning-Machines, of which the following is a specification:

My invention relates to forming a casing upon the end frame of a spinning-machine, to inclose the gearing which operates the drawing-rollers.

In the construction of spinning-machines it is usual to have the train of gearing which drives the drawing-rollers upon either side of the machine uncovered or exposed to sight, although in some cases they have been inclosed at the upper part by detached covers or shells, which are separately attached to the frame, to protect the operator from the gears, and to some extent, also, protect the gears from the flying lint, which is very readily caught by the oil upon the surface of the gears.

The purpose of this invention is to form a casing around the said gears, so as to inclose them, and to make this casing an integral part of the frame, so as to contribute its strength to that part of the frame that is required to be rigid, and to give the frame a convenient and appropriate form, and afford a perfect protection to both the gearing and the operator.

My invention therefore consists in casting the end frame of the machine with a recess of sufficient depth to receive the gearing, which recess is formed by a flange projecting from the frame, which closely surrounds the gearing, as is shown, and, in connection with a covering-plate, makes an inclosure for the gears, which completely secures them from dust and from injuring the operator.

In the drawing, Figure 1 is an elevation of the end frame of a spinning-machine, with a part of the covering-plate broken away. Fig. 2 is a vertical section of the same. Fig. 3 is a

horizontal section in the plane of the drawing-roller shafts.

A is the frame of the machine, made of any appropriate form. B represents the position of the drawing-roll shafts; C, that of the drum-shaft, and D D E E the train of gears to be inclosed. These are usually left exposed upon the outside of the frame. F is a deep thin flange, of an appropriate form, to surround the gearing, as shown, and coming near together at the lower part, but leaving a space sufficient for the intermediate pinion G, which drives the train, which flange is cast upon the upper part of the frame, and gives it great rigidity. The flanges and moldings for strengthening the lower part of the frame are made in the usual way. H is a covering-plate, which fits the front of the recess, and completes the inclosure. It is held in place by screws, or in any other convenient manner. I is a small auxiliary cover, which may be hinged or otherwise attached to the larger plate, to give ready access to the bearing of the intermediate gear-shaft G to oil it.

This construction will be seen to be very compact, and to afford perfect seclusion of the gearing, and can be made at a very small increase of cost beyond that of making the machines with these gears exposed, and far less than attaching separate casings for the gears to the usual frame.

I am aware that partial coverings for the gears have been heretofore attached to the frames in several forms; but

What I claim is—

The end frame, having the flanges F cast in one piece therewith, so as to form the recess for inclosing the train of gears which drive the drawing-roll shafts, in combination with the covering-plate, substantially as described.

Executed November 7, 1874.

Witnesses: JOSEPH M. STONE.

WM. P. EDWARDS,

WM. C. HIBBARD.