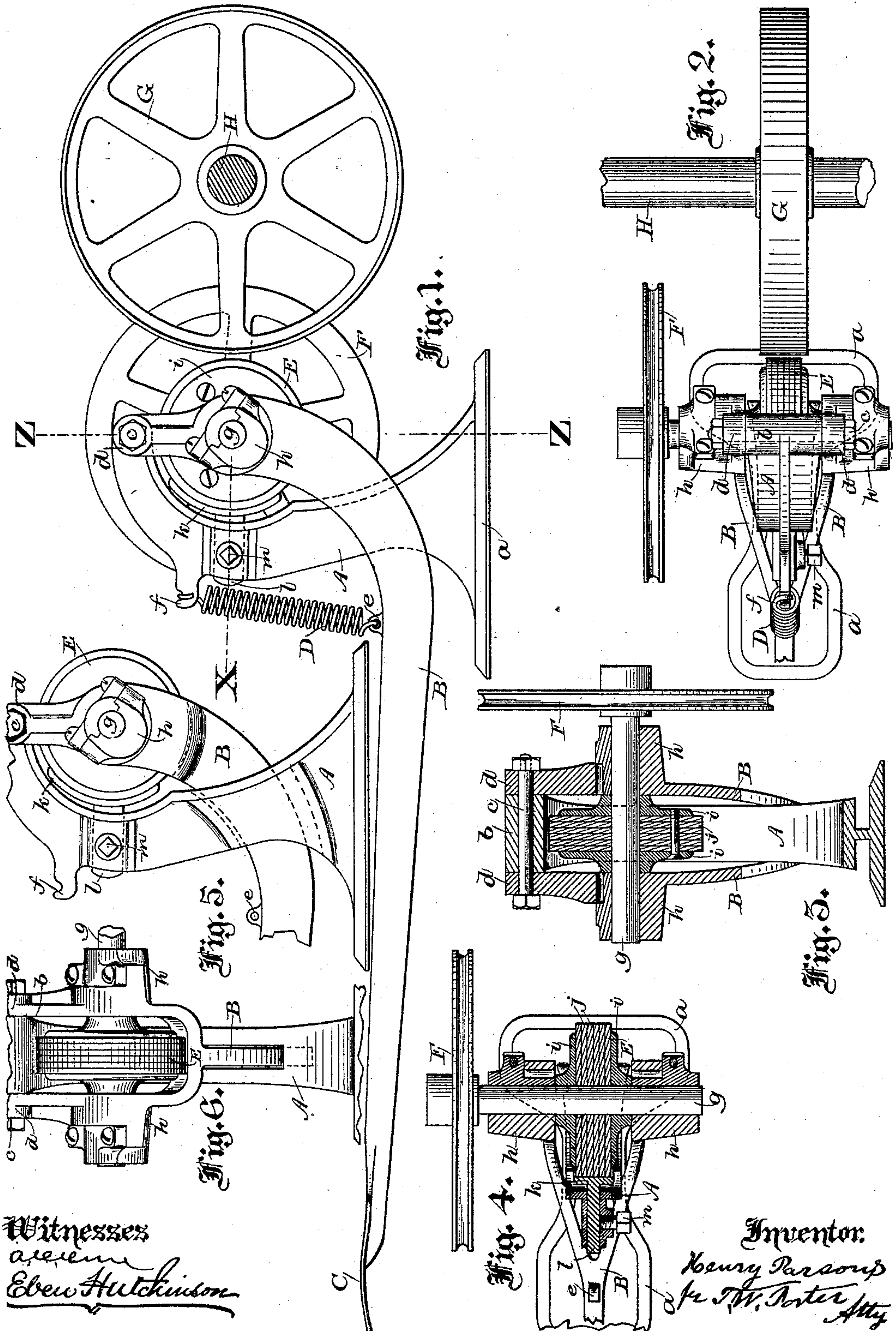


(No Model.)

H. PARSONS.
FRICTIONAL DRIVING MECHANISM.

No. 395,507.

Patented Jan. 1, 1889.



Witnesses
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Eben Hutchinson

Inventor:
Henry Parsons
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UNITED STATES PATENT OFFICE.

HENRY PARSONS, OF MARLBOROUGH, MASSACHUSETTS.

FRICTIONAL DRIVING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 395,507, dated January 1, 1889.

Application filed October 5, 1887. Serial No. 251,492. (No model.)

To all whom it may concern:

Be it known that I, HENRY PARSONS, of Marlborough, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Frictional Driving Mechanism, which will, in connection with the accompanying drawings, be hereinafter fully described, and specifically defined in the appended claims.

In said drawings, Figure 1 is a side elevation of a frictional driving mechanism embodying my invention. Fig. 2 is a top plan view of the mechanism shown in Fig. 1. Fig. 3 is a sectional elevation, the section being vertical and taken on line Z Z, Fig. 1, and the elevation as viewed from the right in that figure. Fig. 4 is a sectional plan view, the section being horizontal and taken on line X, Fig. 1, and the plan showing parts below that line. Figs. 5 and 6 show modifications in the construction of parts of the machine.

My invention relates to that class of frictional devices which are employed for transmitting the motion of a main-line shaft to small machines arranged upon benches above such main line, the driving of sewing-machines in factories by such means being a familiar instance of power thus transmitted; and it consists in features of novelty hereinafter described and claimed.

Referring again to the drawings, A represents a standard formed with base *a*, by which it may be firmly secured to the floor or other support. The upper portion of said standard is curved so as to overhang, and terminates in the tubular portion *b*. A lever, B, having its bifurcated portion curved upward, is pivoted to said standard by bolt *c*, which passes through ears *d* of the lever and part *b* of the standard. The rear or horizontal portion of said lever terminates in a foot-plate or treadle-bearing, C, on which the operator places a foot to depress the lever as a treadle. Said lever is habitually raised by helical spring D, the lower end of which is hooked in the perforated boss *e* on the lever, while the upper end is attached to arm *f*, formed upon standard A, the spring being at all times in a state of tension, which is augmented when the lever is depressed by the operator. A short arbor, *g*, is supported in journal-bearing *h*, formed in

the arms of the forked portion of lever B. Said arbor carries the band-wheel F and the friction-wheel E, which latter is formed with disks *j*, of leather or other suitable frictional material, compressed between disks *i*, which are locked by splines or other means on said arbor *g*. A transmitting-pulley, G, mounted on and driven by the main-line shaft H, is arranged in such proximity to friction-wheel E that when lever B is depressed by the operator's foot on plate C said wheel is forced against pulley G, when the rotary movement of shaft H will be transmitted to arbor *g*, and thence by the band on pulley F to the sewing-machine on the bench over it.

To instantaneously bring arbor *g* to a stop, a brake-shoe, *k*, is so arranged that when the foot of the operator releases said lever wheel E will by the action of spring D force the wheel against said shoe, thus stopping arbor *g* and its pulleys. Said shoe *k* is supported by its shank *l*, which is seated in standard A, and is adjusted and locked in position by means of screw *m*.

In Figs. 5 and 6 the lever B is shown as formed to pass through standard A, instead of inclosing it by its forks, as in the other figures; but this change, as various others—including self-oiling journal-boxes for arbor *g*—that could be made, I deem within the essential nature of my invention.

Simplicity, durability, prompt and easy action, effectiveness, and low cost are among the advantages possessed by my machine.

I claim as my invention—

1. In a frictional driving mechanism, the combination of a standard formed and adapted to be secured in position, a curved lever pivoted to said standard and provided with a foot-plate by which to actuate it as a treadle, a friction-wheel and band-wheel secured upon an arbor journaled in said lever, so that as the lever is actuated by the operator the friction-wheel will be forced into contact with a transmitting-pulley on another shaft, a brake duly arranged relatively to said friction-wheel, and a spring adapted to raise said lever and force said friction-wheel against said brake when the treadle is released from the foot of the operator.

2. The combination of standard A, upturned

lever B, pivoted at its head to said standard, arbor *g*, journaled in said lever below its pivoted head, the frictional and band wheels secured on said arbor, and a foot-plate, C, on the rear end of said lever, all substantially as specified.

3. The combination of standard A, curved lever B, arbor *g*, wheels E F, brake *k*, and spring D, all combined and arranged substantially as specified.

4. In a driving friction mechanism, the combination of a standard, a lever thereto pivoted and adapted to be actuated as a lever, an arbor journaled in said treadle, and band and friction wheels secured on said arbor, all substantially as specified.

HENRY PARSONS.

Witnesses:

ALEXANDER BERRY,
HARRY SPALDING.