A. BOUCHARD.

Improvement in Motive Power.

No. 122,802.

Patented Jan. 16, 1872.

(67.)

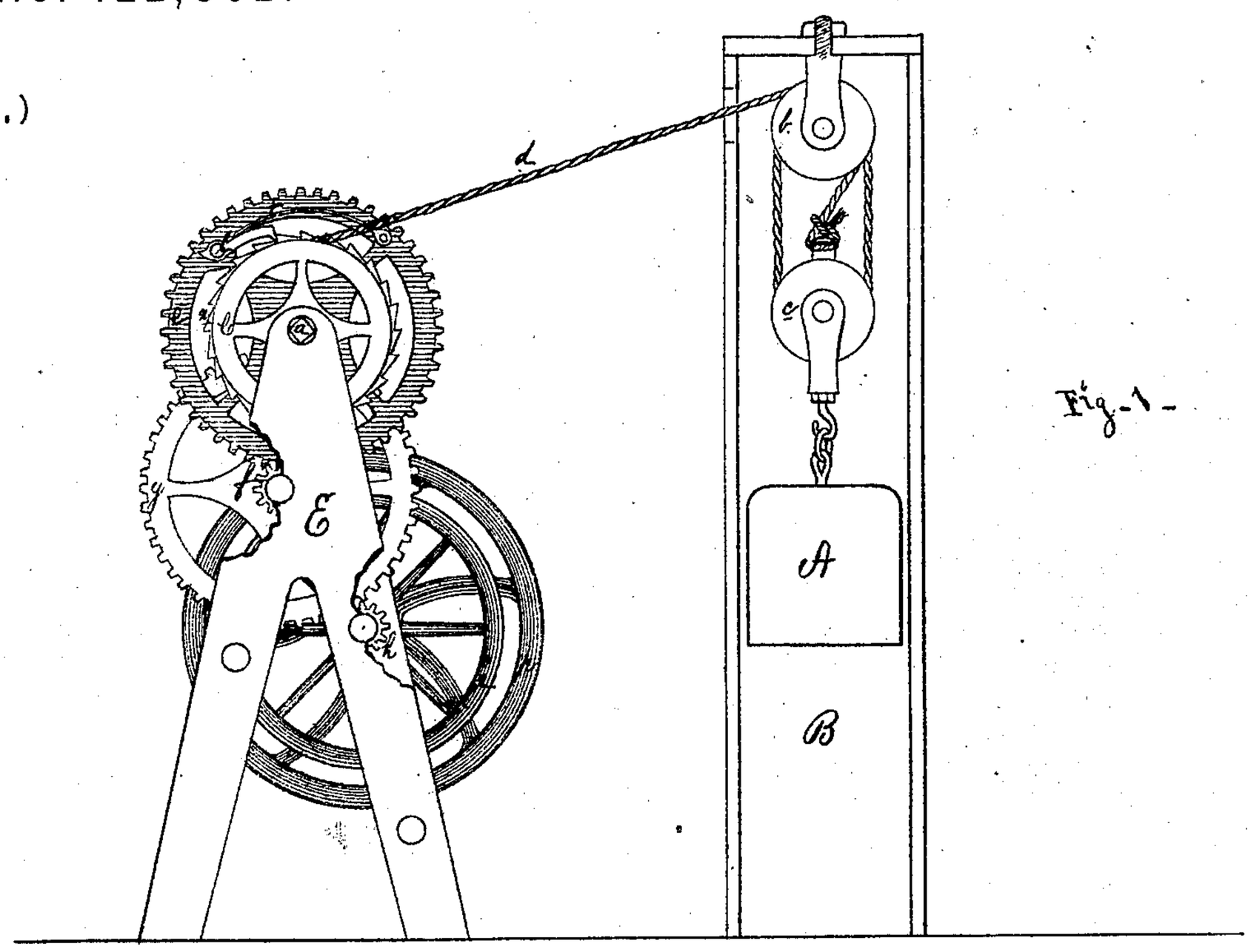
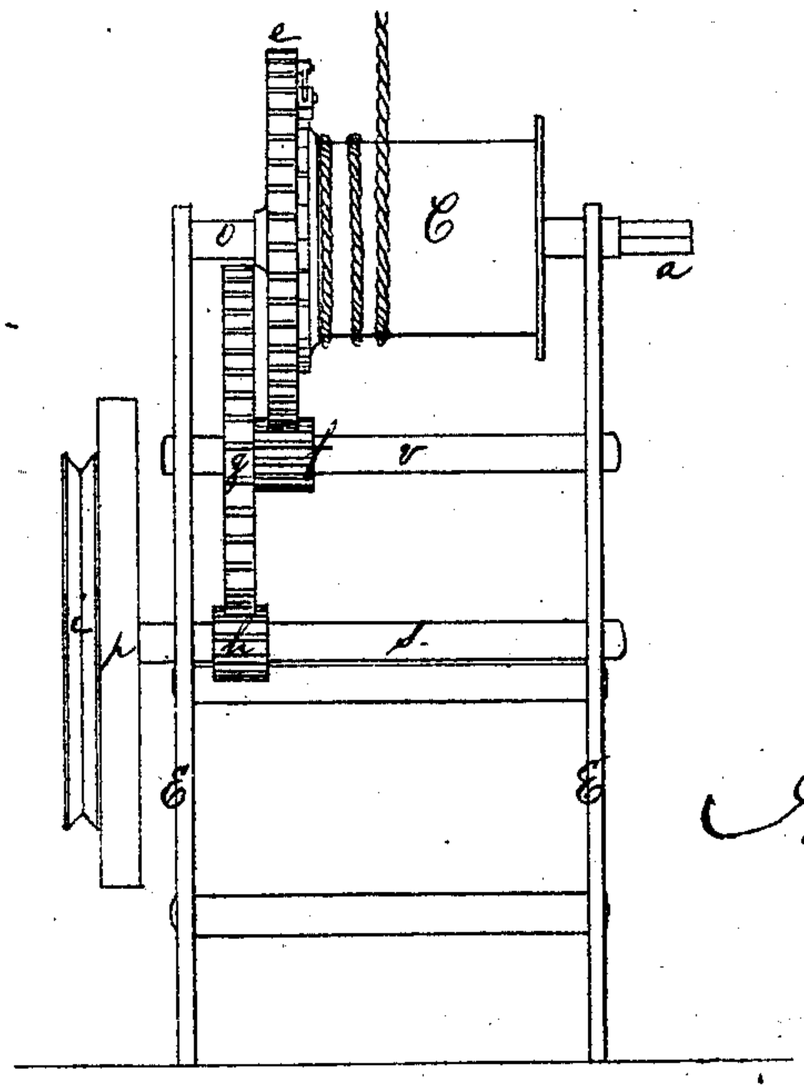


Fig-1-

Fig-2-



WITNESSES-

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INVENTOR-

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122,802

UNITED STATES PATENT OFFICE.

ADOLPH BOUCHARD, OF NEW ORLEANS, LOUISIANA.

IMPROVEMENT IN MOTIVE POWERS.

Specification forming part of Letters Patent No. 122,802, dated January 16, 1872.

Be it known to whom it may concern:

That I, ADOLPH BOUCHARD, of the city of New Orleans and State of Louisiana, have invented certain Improvements in Motive Power; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the annexed drawing, which forms a part of this specification.

My improvement relates to a simple mechanical power which is designed to be especially applicable to the operation of sewing-machines, or other machines requiring but limited power, my object being to provide a motor which shall operate entirely independent of the person working at the machine, to the end that his whole attention may be entirely devoted to the work in hand. In the operation of the sewing-machine to produce work of very great delicacy and fineness, it is well known that when the foot is applied to the treadle to work the machine the physical effort expended thereby diverts the attention and exhausts the power of the operator. Therefore it frequently becomes absolutely essential that the machine should be operated entirely independently of such person. To persons, especially females, of feeble health and delicate physical powers the operation of the sewing-machine, although perhaps necessary to their existence, becomes a serious, burdensome task, and in many instances of long and continued application it is known to have permanently crippled them. The application of my device obviates the objectionable difficulties above mentioned; diversifies the operation by requiring the hand to be brought into exercise in winding up the machine; and when the operator sits down to the work his whole attention can be freely devoted thereto; and thus the whole operation becomes easy and pleasant, all of which advantages I have fully demonstrated by actual experiment.

My device will be better understood and appreciated by reference to the drawing, whereon it is clearly shown and amply illustrated, and whereon, at—

Figure 1 is shown a side elevation with portions thereof broken away the more clearly to expose to view certain important parts hereinafter specified; while Fig. 2 is an end elevation, whereon is exhibited the parts of my device not plainly shown in Fig. 1.

By reference to the drawing it will readily be perceived that the moving power of my device consists of a suspended heavy weight, A, confined within an upright rectangular cylinder, B, in which it loosely slides as it is elevated by means of hand power applied to the crank *a*, or as it descends by its own gravity while operating any machine to which it may be applied in practice. The heavy weight A aforesaid is suspended from the pulley-blocks *b* and *c*, which are secured to the top of the said upright cylinder B, and through which the rope *d* is made to pass, to the end of transmitting thereby the power developed by the descending weight to the drum C. As the weight descends it is clearly obvious that the said drum C is made to revolve and with it the main cog-wheel *e*, which turns loosely upon the shaft *o* as the weight is elevated, but when the weight descends it is rigidly connected to drum C by means of the ratchet-wheel *n*, pawl *l*, and spring *t*. Through the pinion *f*, spur-wheel *g*, and pinion *h* the power is furthermore transmitted to the driving-belt wheel *i*, from which, by means of a cord or belt, motion may be imparted to a sewing-machine or any other machine or device requiring a mechanical motor of the character to which this relates. My device is furthermore provided with a fly-wheel, *p*, for the purposes of securing uniformity and regularity of movement in practice. E is a frame, of wood or metal, which furnishes the bearings for the shafts *o v s* and the gearing therewith or thereon placed.

My device is simple, economical, and effective, and having described it,

What I desire to secure by Letters Patent is the following claim:

The arrangement of the wheels *e*, *f*, *g*, *h*, *i*, and *p* upon the shafts *o*, *v*, and *s*, with drum C, ratchet *n*, pawl *l*, spring *t*, in combination with the weight A, cylinder B, blocks *b* and *c*, and rope *d*, substantially as described, for the purposes set forth.

A. BOUCHARD.

Witnesses:

H. N. JENKINS,

E. H. LEVY.

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