(No Model.)

W. H. COFFIN.

PAPER BOX MACHINE.

No. 493,979. Patented Mar. 21, 1893.

Fig. 1.

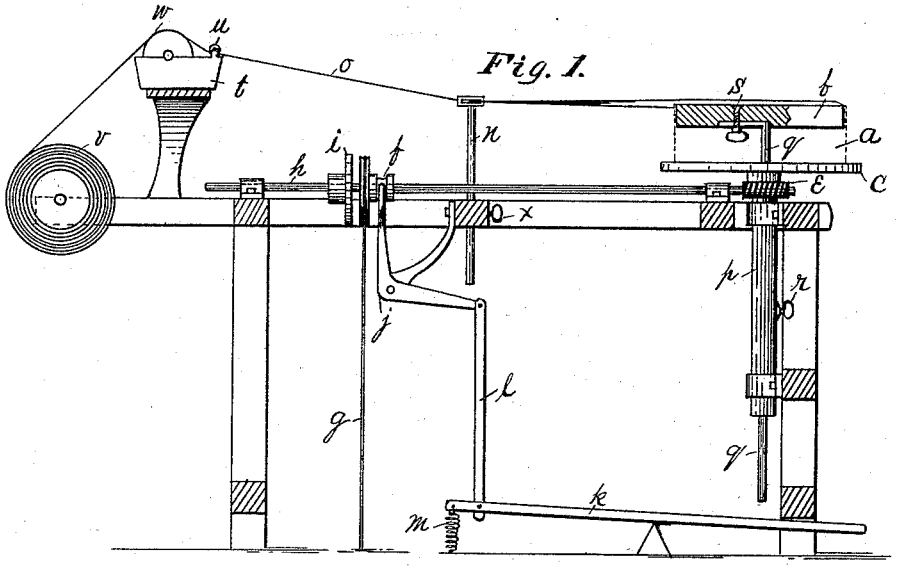


Fig. 4.

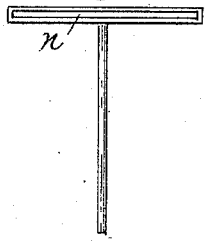


Fig. 3.

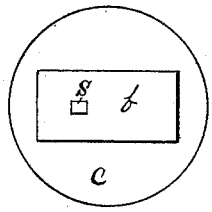
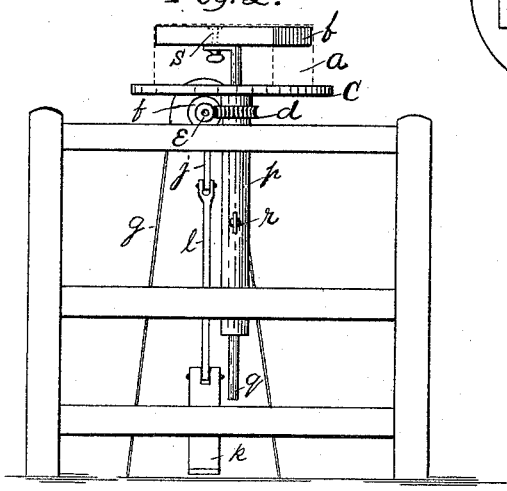


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

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PAPER-BOX MACHINE.

SPECIFICATION forming part of Letters Patent No. 493,979, dated March 21, 1893.

Application filed October 12, 1892. Serial No. 448,661. (No model.)

To all whom it may concern:

Be it known that I, WALTER H. COFFIN, a citizen of the United States, residing at New Bedford, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Paper-Box Machines, of which the following is a specification, reference being had to the drawings hereunto annexed.

Figure 1. is a side elevation of the machine, with the near side of the frame thereof removed, so as to more fully show its construction. Fig. 2. is a front elevation. Figs. 3. and 4. are views of some of the details.

Similar letters refer to similar parts in the several views.

a, represents in dotted lines, the sides, ends and bottom of a paper box.

c, is a table, having an opening in its center, and a hollow shaft *p*, coinciding with said opening, secured to said table, and journaled in boxes on the frame of the machine.

d, is a worm gear, secured on the hollow shaft *p*, and meshing with the worm *e*, on the end of the shaft *h*, which shaft is journaled in boxes on the top of the frame of the machine, and is provided with the friction plate *i*, rigidly secured to said shaft, and the friction driving pulley having grooved hub *f*, turning loosely on said shaft.

j, is a bell-crank lever having a fork embracing the groove in the hub *f*. and having its other end connected with the treadle K, by the pitman *l*.

q. is a rod, adapted to be adjusted perpendicularly within the hollow shaft *p*, and is held in position by the set screw *r*. The upper end of the rod *q*, is adapted to have secured to it, the wooden form or block *b*, by the bolt *s*.

n, is a paper-guide vertically adjustable, by means of the set screw *x*.

g, is a belt which communicates motion to the friction pulley having grooved hub *f*, which turns loosely on the shaft *h*.

v, is a roll of paper, having its shaft journaled on the rear of the machine, and from which, the strip of paper *o*, passes over the paste roll *w*, which is journaled on the paste box *t*, and under the roll *u*, and through the guide *n*, to the box *a*.

The operation of the machine is as follows. The rod *q*. having a form *b*, of suitable size to fit the inside of the box which it is desired to make, secured to it, is adjusted to a height above the table *c*, so that when top edges of the sides and ends, rest on the table, the bottom of said edges will project above the block *b*, the thickness of the bottom of the box. The sides and ends of the box, are then placed about the block or form *b*, and the bottom of the box is adjusted on the top thereof. The operator then takes the end of the pasted strip *o*, and secures it to the corner of the box and places her foot on the treadle *k*, which causes the revolving pulley *f*, to be pressed against the friction plate *i*, and communicate motion to the shaft *h*, and through the worm *e*, and worm gear *d*, causes the table *c*, to revolve. The strip of paper *o*, is held to the proper height, by the guide *n*, and as the table *c* and form *b*, revolve, the operator smooths down the strip, over the corners of the box, thus securing the bottom and sides thereof together. When the table *c*, has made a complete revolution, the operator removes her foot from the treadle, when the spring *m*, operates to throw the friction plates out of contact and thus stops the motion of the table *c*. The operator then severs the strip *o*, from the box, and repeats the operation.

I claim—

1. In a paper box machine of the character described, the combination of the horizontal table *c*, mounted on the hollow shaft *p*; a rod *q*, vertically adjustable through said table and shaft having its top adapted to have removably secured to it, a form *b*; the form *b* the vertically adjustable guide *n*; the paste roll *w*; and means to intermittently rotate said table, at the will of the operator, substantially as shown and described.

2. In a paper-box machine of the character described; the combination of the horizontal table *c*, mounted on the hollow shaft *p*, provided with the worm gear *d*; the shaft *h*, having friction plate *i*, and the worm *e*, meshing

with worm gear *d;* the driving friction pulley having grooved hub *f*, mounted loosely on said shaft *h*, and adapted to be brought in contact with the friction plate *i*, by means of a treadle, whereby motion is communicated to the shaft *h*, and table *c*, at the will of the operator; the rod *q*, bearing a form *b*, vertically adjustable through said hollow shaft and table; the vertically adjustable guide *n;* and the paste roll *w*, substantially as shown and described.

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