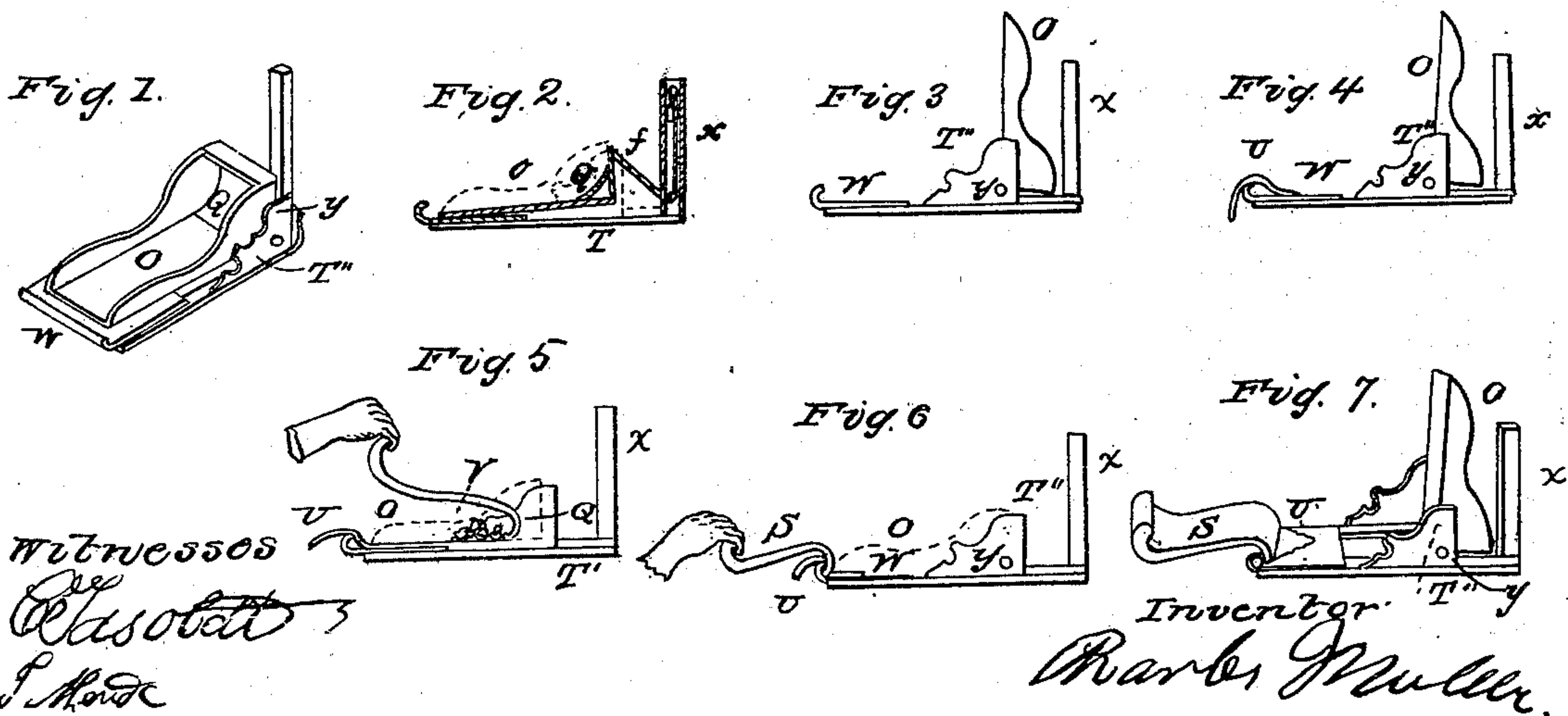
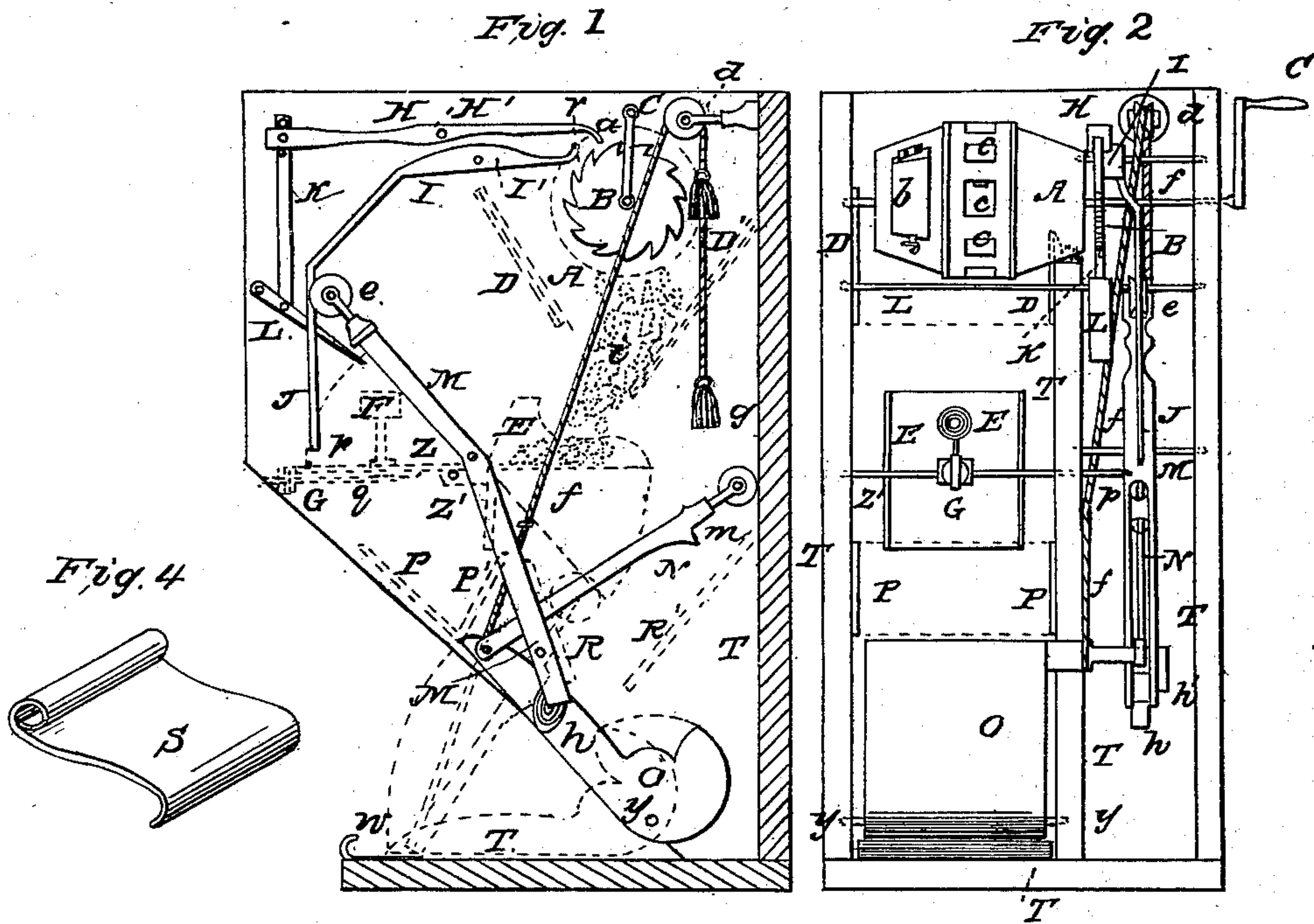


## Cigar Machine.

**No. 80,204.**

Patented July 21, 1868.



# United States Patent Office.

CHARLES MÜLLER, OF ALBANY, NEW YORK.

*Letters Patent No. 80,204, dated July 21, 1868.*

## CIGAR-MACHINE.

*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, CHARLES MÜLLER, of Albany, in the county of Albany, and State of New York, have invented a new and improved Cigar-Maker's Machine; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1, sheet 1, is a side elevation of my invention.

Figure 2 is a front elevation.

Figure 3 is a view of the position of scoop S, wrapper *a*, and trough O, during the finishing process of filling the cigar-wrapper by my machine.

Figure 4 is a view of scoop S.

On Sheet No. 2, Figures 1 to 7, inclusive, illustrate the various stages of the process of manufacturing cigars by my machine.

Similar letters of reference indicate like parts in all the figures.

The principal object of my invention is to facilitate the manufacture of cigars by means of a machine, consisting of a self-weighing scale, which is filled from a revolving drum, as will be more fully hereinafter described.

Another object of my invention is to enable the operator to place the proper amount of filling into the wrapper, and also to give the wrapper so filled the best possible form, preparatory to the rolling up of the wrapper or binder, which is accomplished by means of a scoop, held and operated by the hand of the cigar-manufacturer, and used in combination with a curved metallic plate, as will be hereinafter more fully described.

My invention consists in the construction of a drum or receptacle, into which the filling or prepared tobacco is placed, and by the revolution of said drum the filling is caused to pass through openings in its circumference, and dropping upon a poised scale, which, when filled, empties its contents into a hopper placed below it, and thence into a trough, where it is further manipulated, as will be more fully described, in combination with a series of levers, a cord and weight, and a ratchet-wheel and its detent-pawls, as will be hereinafter more fully described.

A designates the drum, which is made cylindrical in its central portion, and conical at its ends, as shown in fig. 2, sheet 1. It is made of this shape so as to cause the cigar-fillings placed within it to fall more easily from the openings *c c*, in its central portion, and to enter the hopper D D' beneath it.

E designates a scale-pan, formed with sides and a back end, as shown in figs. 1 and 2, Sheet No. 1. Said scale-pan has an arm, Z, extending from its back end, as shown in fig. 1, sheet 1. The arm Z is suspended, and revolves or turns upon a pivot or wire, Z'. Underneath and at the end of arm Z is a rod, *q*, having a set-screw, G, at its outer end, and an elevated weight, F, attached to its inner end. Said weight F slides upon the arm Z of the scale, and is regulated by the set-screw G.

Projecting from one side of the arm Z is a wire, *p*, which strikes the lever L when the scale-pan is filled and tipped down by the weight of the filling thrown into it from the drum A. The lever L being attached to lever H by connecting-rod K, as shown in the same figure on Sheet No. 1, depresses the opposite end of lever H, and causes the detent *a* to engage in the teeth of the ratchet-wheel B, and stops the motion of the drum A until the scale-pan E is returned to its horizontal position, ready to be again filled.

P P' designate a hopper placed below the scale-pan E, and a little forward of the same, so as to receive the surplus fillings that may fall from hopper D D' when the scale-pan E is down. The surplus fillings will fall upon the back end of the scale-pan, and be conducted into the hopper P, P', as may readily be seen by an inspection of fig. 1, sheet 1.

R R' designates a hopper, into which the contents of the scale-pan E are received and conducted into trough O, which is placed at the bottom of the machine, as shown in figs. 1 and 2, on Sheet No. 1, and in all the figures on Sheet No. 2.

O designates a receiving-trough, which may be made of the form shown in fig. 1, sheet 1, or as shown in



all the figures on Sheet No. 2. The back end of said trough O is curved, as shown at *e*, in figs. 1, 2, and 5, on Sheet No. 2. This curved form of the back end of the trough renders it easy to remove the filling from the trough to the binder or wrapper U, by means of the scoop S, as shown in fig. 5, Sheet No. 2.

W designates a metallic plate fastened to the bottom board of the machine, and at the end of and under the trough O, as shown in fig. 1, sheet 1. The outer end of said plate W is curved upwards, and nearly semi-circularly, as shown in the same figure.

On one side of trough O, and near its end, is attached a cord, *f*, which runs upwards to the top and back of the machine, and is suspended over a pulley, *d*, and has a balance-weight, *g*, attached to it, as shown in fig. 1, sheet 1.

M designates a bent lever, having a pulley, *e*, attached to its upper end, and a balance-weight, *h* or *h'*, at its lower end; its lower end is also cut away in its central portion, so as to admit of the passage of lever N through it, as shown in fig. 2, Sheet No. 1.

N designates a lever, one end of which is attached to a pivot at one side of the trough O. Its opposite end has a shoulder, *m*, cut in to it near its end for the purpose of engaging with a wire, N, placed across and near the bottom of lever M. When the trough O is thrown upwards the shoulder or recess *m*, moving against the pin *n*, raises the lower end of lever M, causing the upper or pulley-end of lever M to raise the bent arm J of lever I, and thus depress the short arm *r* of lever I upon the teeth of the ratchet-wheel, and thereby relieve the detent-pawl *a*, so that lever L may fall again to its normal position, and the drum A may be put in motion again.

T designates a suitable frame of wood, into which the various parts of my machine are mounted, as represented in side and front elevations in figs. 1 and 2, Sheet No. 1.

The lower part of the machine may be used alone, without the drum and hoppers, and scale-pan and levers operating the same, using only the cord *f* and its weight *g*, the trough O, the curved metallic plate W, and the scoop S, all as shown on Sheet No. 2.

S designates a metallic scoop, the form of which is clearly shown in the drawings. Its use is to draw the cigar-filling from the back part of trough O into the wrapper or binder U, as shown in figs. 5, 6, and 7, on Sheet No. 2.

The operation or mode of using my invention will be as follows:

The filling for the cigars having been previously prepared and reduced to the right size, are put into the drum A, which is provided with a door, *b*, and is made to revolve upon proper bearings by means of a crank, C, or a belt, or by any suitable power. A wrapper or binder, U, is placed upon the metallic plate W, one-half of said wrapper or binder hanging over the edge of the plate W, as shown in fig. 4, Sheet No. 2.

The quantity of filling necessary for the cigar having been deposited by the scale-pan E, as above described, or in any other manner, the scoop S is then used, as shown in fig. 5, to draw the filling *i* upon the wrapper or binder U, and to compress the same into the curved recess formed by the metallic plate W, as shown in fig. 6. The hand of the operator holding the scoop S in the position shown in fig. 6, he then throws up the trough O, as shown in fig. 7, the cigar is then rolled and finished in the usual well-known manner.

It will be seen that the weight of filling required for the different sizes of cigars is regulated by the position of the balance-weight F, which is done by turning the set-screw G, to alter the distance of the elevated weight F from the fulcrum Z' of the scale-beam or arm Z.

By this process of manufacturing cigars they may be made of a more uniform size, weight, and shape than they can be by the usual ordinary mode or process.

Having thus described the construction and the mode of operation of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of trough O with the curved metallic plate W, or its equivalent, substantially as and for the purpose set forth.
2. The scoop S, in combination with the trough O and curved plate W.
3. The combination of drum A, hoppers D D', P P', and R R', scale-pan E, ratchet-wheel B, levers H and I, M and N, substantially as and for the purpose set forth.
4. In combination with the subject-matter of my third claim, the trough O, metallic curved plate W, and cord *f* and weight *g*, substantially as shown and described.
5. The within-described process of manufacturing cigars, substantially as shown and in the manner set forth.

CHARLES MÜLLER.

Witnesses:

O. FASOLDT,  
S. MEUDE.