

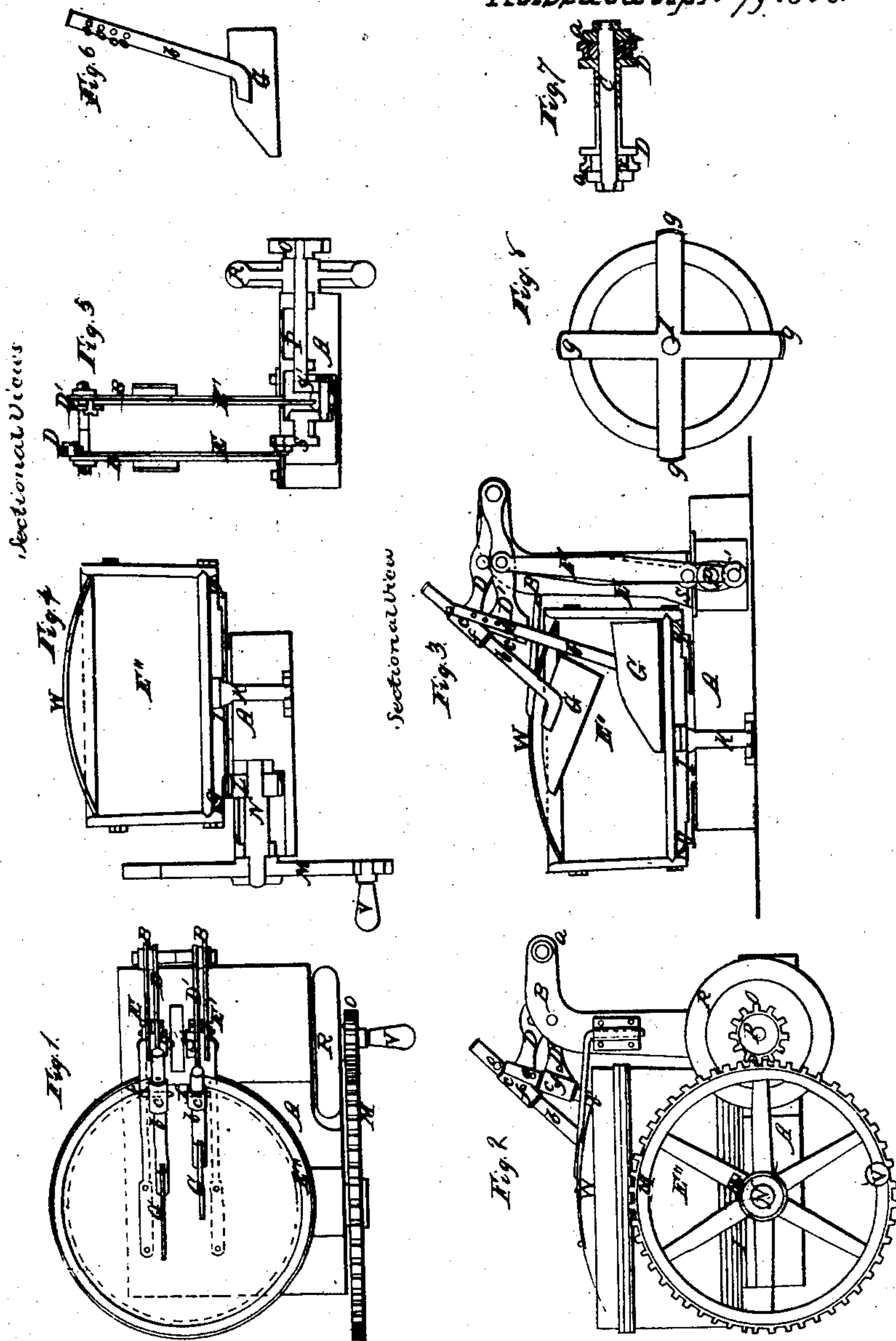
Spaulding & Scott.

Meat Chopper.

N^o 46,153.

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UNITED STATES PATENT OFFICE.

ALFRED F. SPAULDING AND SALMON M. SCOTT, OF WINCHENDON, MASS.

IMPROVED MEAT-CHOPPING MACHINE.

Specification forming part of Letters Patent No. 46,153, dated January 31, 1865.

To all whom it may concern:

Be it known that we, ALFRED F. SPAULDING and SALMON M. SCOTT, of Winchendon, in the county of Worcester and State of Massachusetts, have invented an Improved Machine for Chopping Meat, &c.; and we do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 denotes a top view of the machine as it appears with the cover of the tub removed; Fig. 2, a side elevation of it; Fig. 3, a vertical and longitudinal section taken so as to exhibit one of the knife-carriers and its connecting-rod. Fig. 4 is a transverse and vertical section taken through the shaft of the driving-wheel. Fig. 5 is a vertical and transverse section taken through the secondary driving or cranked shaft, to be hereinafter described.

In the said drawings, A denotes the bed-plate of the machine which may be constructed of wood, cast-iron, or any suitable material. To the upper face of the said plate, and near one end thereof, two curved posts or standards, B B, are secured and extend upward at right angles therefrom, and have the form as shown in Figs. 1 and 2. Through holes *a a*, made through the front ends of the said standards, a shaft or rod, C, extends horizontally and serves as a fulcrum for the two knife carriers or levers, D D', which are so applied thereto as to be capable of having vertical movements imparted to them by means of two connecting-rods, E E', which are respectively hinged or jointed to or near to the middles of the said carriers D D', as seen in Figs. 1 and 3. On the rear end of each of the levers D D' a tubular socket, *c*, is made, the same being for the reception of the shanks *b b* of two adjustable knives or cutters, G G formed as shown in Fig. 6, which is a side view of one of such cutters. Each of the cutters G should be so formed and applied to its carrier that its cutting-edge, when brought into its lowest position, shall almost touch or be nearly in the same horizontal plane with the top surface of the bottom of the tub E'', in which the knives work. The said knives are made adjustable with respect to the bottom of the tub by means of pins *f f*, which pass through holes made through the sockets *c c*, and a series of holes, *o o*, made through the shanks of the

knives, one series of such holes being shown in Fig. 6. Furthermore, the said knives are so arranged that when in operation their cutting-edges move in circular arcs, and thus are caused to act upon the meat or article to be chopped with a drawing stroke.

In order to prevent any injury to the knives or other part of the machine in case any hard or unyielding material should get between the edge of either knife and the bottom of the tub, I dispose a short tubular cylinder, *v*, of india-rubber around each of the journals of the shaft or rod C in manner as shown in Fig. 7, which is a longitudinal section taken through the shaft and its bearings.

The tub E'' is of a cylindrical form, and has a diameter a little less than double the length of the cutting-edge of either of the knives in order that as the tub is revolved every portion of the material to be chopped shall be brought under the action of the cutters. The said tub is supported upon an annular frame, I, having the form as shown in Fig. 8, which is a top view of such frame. On the upper surface of the said frame four or any other suitable number of projections, *g g*, are disposed, and bear against the chines of the tub, and are for the purpose of holding the tub on the frame while the tub may be in revolution. The said frame is formed with or is supported by a vertical spindle or rod, K, which extends down through a slot made through the bed-plate A, and is secured to the latter by a nut screwed upon the lower end of the spindle as seen in Fig. 4.

Directly underneath the annular part of the frame I, and so as to work in contact therewith, a rubber friction-wheel, L, is disposed, the same being affixed to the shaft N of the driving wheel or pinion M, the latter being affixed to said shaft as seen in Fig. 2. The said pinion M engages with a gear, O, disposed on one end of the secondary driving-shaft P, on which a balance-wheel, R, is arranged as shown in Figs. 1 and 2, the object of this arrangement of the said wheel R being to give a uniform movement to the cutters G G. The said shaft P has formed upon and near its opposite end two wrists or cranks, S S', to which the lower ends of the connecting-rods E E' are respectively united.

V is a crank or handle applied to the driving-wheel. By the application of a suitable motor

thereto the machine may be put in operation.

W is a removable cover for retaining the meat within the tub while such meat is in the act of being chopped.

By taking hold of the handle V and turning the driving wheel or pinion M rotary motion may be imparted to the driving-wheel shaft, and, of course, to the friction driving wheel L, which in turn will communicate a continuous rotary movement to the tub H. The said pinion M, at the same time acting on the gear O, also gives rotary motion to the shaft P, and, as the connecting-rods which are attached to the knife carriers are jointed to cranks disposed on opposite sides of the said shaft at angles of one hundred and eighty degrees from each other, reciprocating alternate movements will be imparted to the knives G in vertical planes at each revolution of the said shaft P.

Thus it will be seen that by the above-described peculiar construction and arrangement of the parts of our machine, by simply putting the driving-wheel in revolution we not only impart a continuous rotary motion to the tub and the contents thereof, but we give to the knives alternate vertical move-

ments in the arcs of circles, whereby the said knives are made to operate to the best advantage—viz., with a drawing-stroke—upon meat or material to be chopped. Furthermore, by giving to the tub a continuous rotary motion every portion of the material to be chopped will be brought uniformly under the action of the knives.

A machine when made as above set forth is not only simple in construction and little liable of getting out of order, but the parts which may need cleansing can readily be removed for such purpose.

We claim—

The improved machine constructed substantially in manner and so as to operate as described—that is to say, with the safety spring or springs v arranged with each of the knife-carriers and its operative mechanism as described, the knife or knives being arranged to work in a rotary tub in manner as explained.

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Witnesses:

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