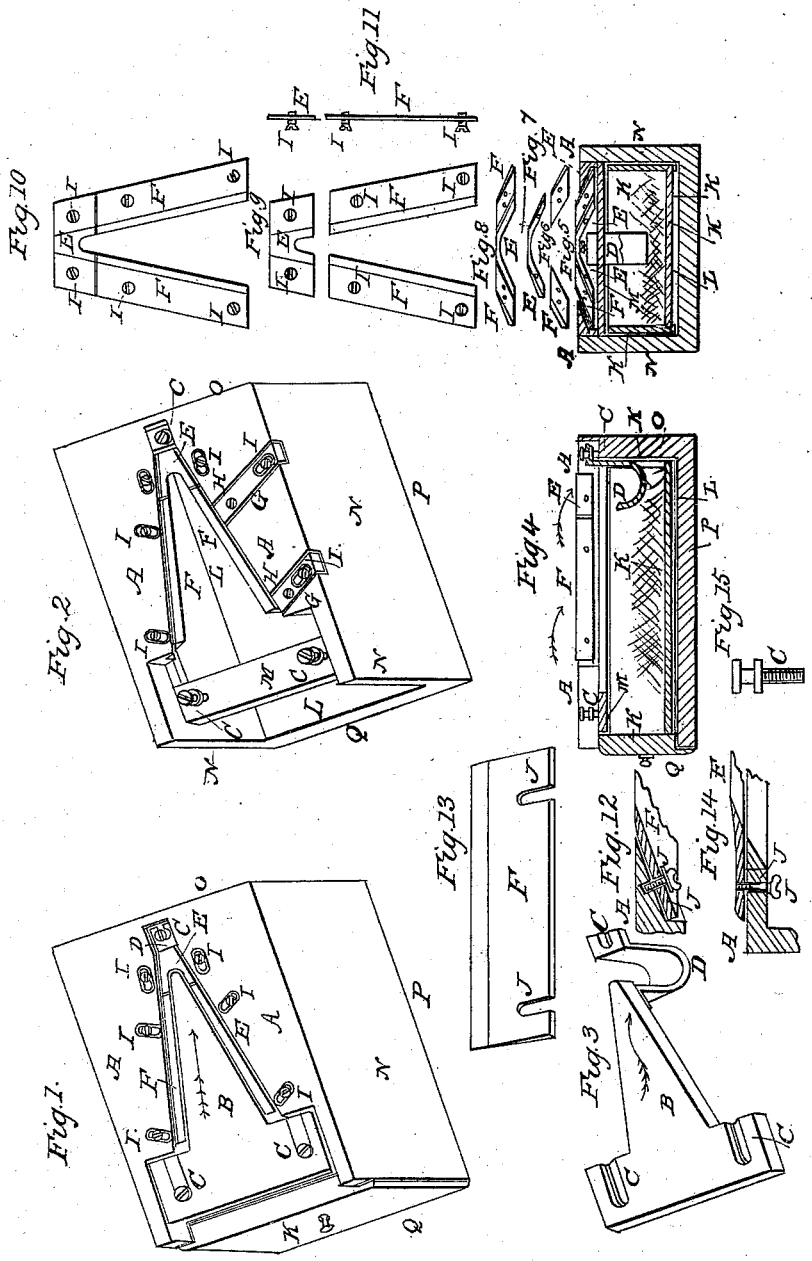
D. W. GOBLE.

Apparatus for Mincing Dried Beef.

No. 7,489. Patented July 9, 1850.



# UNITED STATES PATENT OFFICE.

D. W. GOBLE, OF NEWARK, NEW JERSEY, ASSIGNOR TO GILBERT S. WARD AND GEORGE F. MUSSELMAN, OF NEWARK, NEW JERSEY.

## APPARATUS FOR CUTTING DRIED BEEF.

Specification of Letters Patent No. 7,489, dated July 9, 1850.

*To all whom it may concern:*

Be it known that I, DANIEL W. GOBLE, of the city of Newark, in the county of Essex and State of New Jersey, have invented a new and improved beef-cutting machine or inverted plane for slicing or shaving smoked beef, cabbage for cold slaw, and other things for the table, as well as for other purposes for which the same may be suitable; and I do hereby declare that the following is a full and exact description of the nature, construction, and operation of the same; reference being had to the accompanying drawings and to the letters of reference marked thereon, which represents like parts throughout the same.

The nature of my invention consists, in providing, or so arranging, a set, or series of knives, properly proportioned in size and shape, so as to form any convenient angle for regulating the resistance of the object to be cut, in the best manner, to prevent its shearing off to one side when in the act of cutting the same, by adopting such an angle as will produce this desired result, the resistance to the object to be cut is neutralized by the reaction of the compound edges of these sections of the whole knife edge, they are said to be a series of knives because they are made in three pieces for convenience while in reality they represent one continuous knife when the object to be cut is passing in line with the center between the two side section knives, and so on, over the end or middle section knife, placed in the apex of the angle formed by the edges of the two side knives. While in the machines with the one oblique blade the object to be cut is compelled to be kept against said edge by the force of the operator instead of being regulated by corresponding knives opposite each other as in my improved mode, which requires only the force of the operation to be principally employed in one direction, which direction is in line with the center between the edges of the two side knives, and so on over the middle section knife. I also construct the face or bed of the machine so as to allow it to be graduated, to vary the thickness of the shavings to be cut.

To enable others skilled in the art, to make and use my invention, I here set forth its construction and operation.

Figure 1 is a perspective view of the machine, Fig. 2 is a perspective view of the same, having the graduated bed and drawer removed, showing the inside as seen at this point also one method of holding and adjusting the knives as seen at G, G, besides the method marked I I. Fig. 3 is a perspective view of the graduating bed detached from the machine. Fig. 4 is a longitudinal sectional elevation of the machine, having the entire side of the machine, including the side of the drawer, and half of the top, as well as half the knives, including the graduating bed removed, except a part of the stirrup or arm belonging to the graduating bed; showing the inside as seen from the side. Fig. 5 is a transverse sectional elevation, having the front of the drawer removed including the graduating bed, except the arm attached to the bed, a part of which remains, thus showing the inside as viewed from the front. Fig. 6 is a transverse perspective elevation of the two side knives as viewed from the front, being detached from the machine, Fig. 7 is a transverse elevation of the branch knife detached from the side knives as viewed from the front, Fig. 8 is a transverse perspective elevation of the two side knives, including the branch knife as viewed from the front, Fig. 9 is a horizontal, or bed plan of the two side knives, including the branch knife, they being detached from each other as viewed from the top, separate from the machine, Fig. 10 is precisely the same thing except that the knives are joined together as they are when in use, Fig. 11 is an edge view of the said knives, Fig. 12 is a transverse perspective sectional elevation showing another method of attaching the knives to their seats by the thumb screw J, under the top of the machine when viewed from the front, Fig. 13 is an enlarged bed plan of the side knife as used in Fig. 12 and viewed from the top, Fig. 14 is a transverse perspective elevation, showing a method of attaching the knives on top, instead of under the same, as viewed from the front, Fig. 15 is the graduating screw for adjusting or graduating the bed.

Having thus set forth the general purpose of each figure, I shall next proceed to refer to the parts by letters.

A A is the top of the machine, B is the graduating or adjustable bed, C C is the

screws for adjusting or graduating this bed, D is the stirrup or arm to ditto; E is the branch knife, F F is the side knives; G G is bars showing one method of holding the knives; H H is the screws for attaching the knives to the bars, I I is the screws for attaching the knives including the slots for adjusting the same; J J is the thumb screw for holding the knife, *j j* is the slots to ditto when used as in Fig. 12, K K is the drawer, L L is the inside of the machine, M is the rail for supporting the bed B at its front end, N N is the sides of the machine, O is the back end of the machine, P is the bottom of ditto, Q is the front of ditto.

In constructing the machine, I make the body of the same of wood and the rest of metal, or the whole of metal just as preferred, the edge of the knives E and F F is to be made of steel, of course. The top A A being the place for securing the knives as at Figs. 1, 2, and 5, being placed partly under the top as seen, except where the bars *a a* is used, in that case the slots and screws I I is made at the out end of the bars as seen, while the knives F F is held by the screws H H which passes down through the top and so on through the knife with a nut on their end, while the knife may have slots in the same to receive the screws to adjust the knives as desired. I use another method of securing the knives by a thumb-screw J in the slots J J as seen in Figs. 12 fixed in the underside of the top A, these screws pass through the knife at the slots J J as seen in Fig. 13, these slots allows the knives to be adjusted as they wear away by grinding &c.

Another method is shown in Fig. 14 which serves for fastening the knives on the upper side of the machine by the thumb screw J, as seen, while the slots *j j* allows the knives to be adjusted to suit, as the slots is in the top while the screw is attached to the knife and moves with it. Thus it is seen that there is several ways for attaching and adjusting the knives to the machine, the one which I prefer is shown in Fig. 12 having the thumb screw and manner of attaching the knives, &c., put the underside of the top of the machine, by which the top has less unevenness as to holes. These knives are made in three parts for convenience in grinding and adjusting, the branch knife E is curved at its cutting edge, and matches exactly with the side knives F F so that a continuous edge is presented the whole length of the inner edge of the knives, so that the meat or object to be cut, when pushed against the edge, the piece or slice is cut off, if passed as far over as required, the curved part cutting better than if the edge of the knives come to a point. The dots in Figs. 4 up to 8 on the underside of the knives denotes the points of the screws which pass through said knives, to hold them on when they are secured as in Fig. 1. For the purpose of varying the thickness of the cuts of the meat shavings, I make the bed B so as to have its edge correspond with the edge of the knives in its shape next to the knives, while the front end is made straight across, and sufficiently far off from the knives to be convenient. This bed is so made as to be adjusted or graduated in its height by which it gages the thickness of the shavings of the meat cut, as may be desired, the graduating may be produced by several methods, one of which is here shown, consisting of the screws C C, C, one of which is shown in Fig. 15, being an enlarged view of the same, these screws have a collar in addition to the head by which a sort of groove is formed around the body of the screw, this screw is properly let into the bed B either as seen in the drawing Figs. 1 and 3 at C C by having a piece taken out of the bed, as seen at C C in Fig. 3, so as to allow the screw to be put in the said bed, the piece being put in again to fill up the space, or the collar may be screwed on tight after the screw is put down through the bed, as then the head and collar forms the groove as in the other case, in this case, or plan the collar is made separate and tapped out like a nut to a bolt, while the thread upon the screw permits this collar to be screwed up to the right point. These screws have a crease in their heads for admitting a screw driver to turn them for adjusting the bed, two of these screws enter the rail M, at the front part of the machine, while the other one enters the back end at O, of the same, having the stirrup or arm D with a slot or hole in it to admit said adjusting screw for the purpose of adjusting the point of the bed B, this stirrup or arm being attached to the underside of said bed and being bent down so as to not obstruct the meat shavings as they enter the drawer below, this is one way of supporting this part of the bed B, another way is to make the bed B sufficiently strong and secure at the front end, so as to support the point without the stirrup, and at the same time allow the bed to be graduated as may be desired, to produce the shavings to suit. These shavings is shown in Figs. 4 and 5 by numerous marks in the drawer K. The arrow in Fig. 1 shows the direction which the object to be cut is required to take when being cut. The edges of the knives should be set a little higher than the face of the knife by which the knives will cut clean and much better than if the edges of the knives were just even, or a little lower than the face of the knife, these side knives F F cut with a kind of compound motion similar to drawing a knife across the object to be cut, owing to the position of the edge of these side

knives in relation to the line of motion which the object to be cut, takes in the act of being cut. By making the branch knife E curved or a section of a circle at its cutting edge it is found to cut better than if it was brought to a point, by mitering the ends of these three knives where they come together they are easier to adjust at their cutting edges. I have thus fully made known the construction and operation of my invention.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the knives E, and F F forming an angle to each other, as described.

2. I claim the combination of the bed B, with the other parts, to graduate the thickness of the shavings as described.

I do not claim making an inverted plane for this purpose, as that has been done before by a single knife.

DANIEL W. GOBLE.

Witnesses:

CHARLES F. ROBERTSON,

JOHN ROBERTSON.