G. C. MORRISON.

RIBBING KNIFE.

APPLICATION FILED MAY 13, 1920.

1,364,885. **Patented Jan. 11, 1921.**

2 SHEETS—SHEET 1.

Fig. 1.

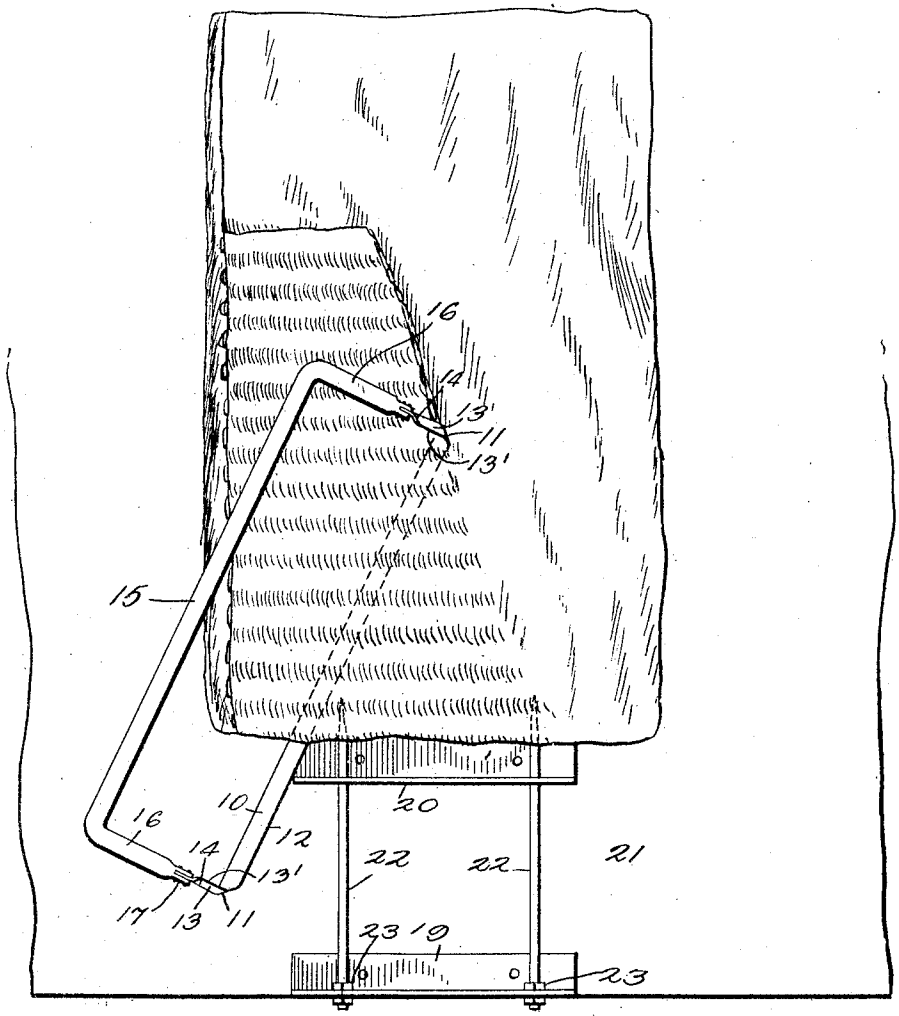
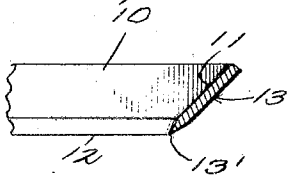


Fig. 5.



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2 SHEETS—SHEET 2.

Fig. 2.

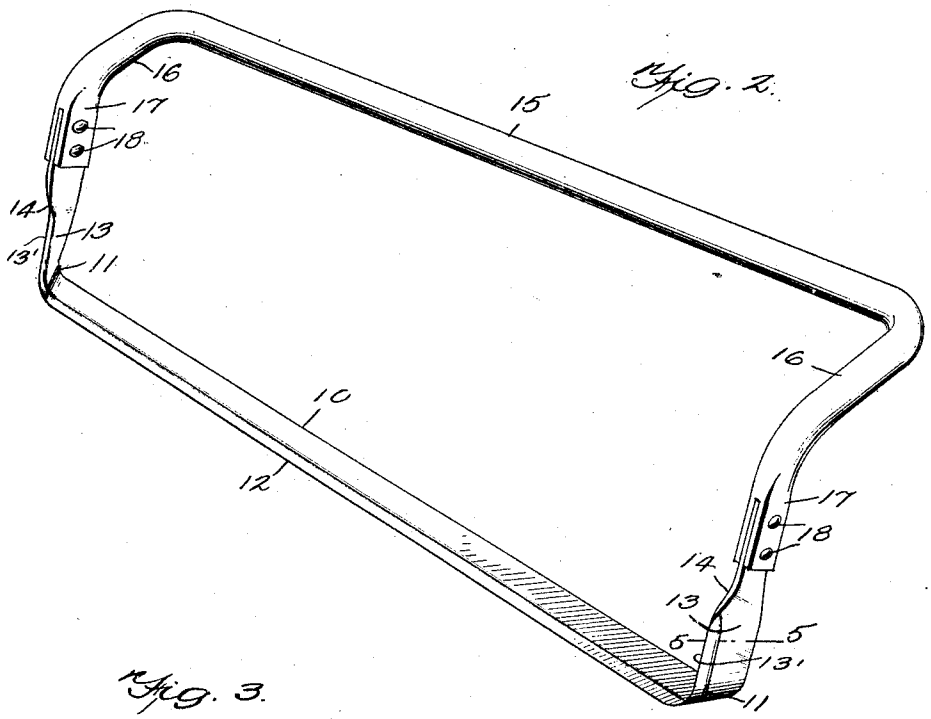


Fig. 3.

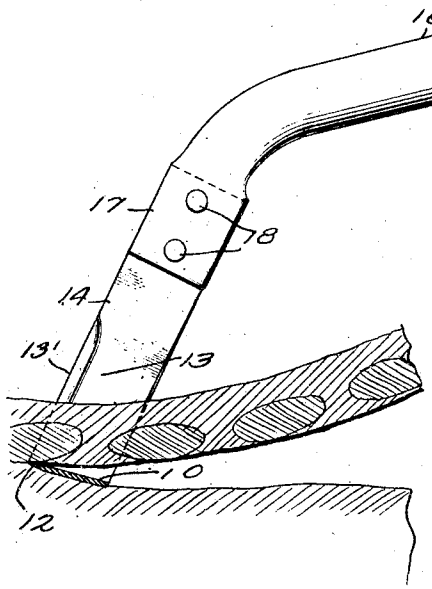
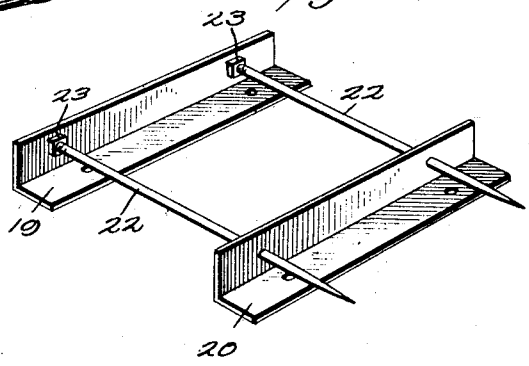


Fig. 4.



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UNITED STATES PATENT OFFICE.

GEORGE C. MORRISON, OF DENVER, COLORADO, ASSIGNOR TO THE MECHANICAL MANUFACTURING COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

RIBBING-KNIFE.

1,364,885. Specification of Letters Patent. Patented Jan. 11, 1921.

Application filed May 13, 1920. Serial No. 381,116.

To all whom it may concern:

Be it known that I, GEORGE C. MORRISON, a citizen of the United States, residing at Denver, in the county of Denver and State of Colorado, have invented certain new and useful Improvements in Ribbing-Knives, of which the following is a specification.

This invention relates to improvements in ribbing knives.

An important object of the invention is to provide a knife by means of which the ribs adhering to that portion of the hog known in the trade as the belly may be readily removed.

As is well known to those familiar with the art, a side of pork is cut upon the line known as a "scribe," dividing the side into the back which bears the loin and the belly. The scribe line passes through the ends of the ribs and consequently after the cut is made, these ends are left adhering to the belly. This belly is then rolled flat and the ribs removed.

This operation is at present performed with a straight knife and requires considerable skill in that, if miscuts are made during the operation of removing the ribs, the result necessitates placing the meat upon the market at a cheaper price. It requires considerable time to train a man to the point where he becomes an efficient ribber, and considerable loss is occasioned by the miscuts made during the training. In order to overcome the above difficulties, I have provided a knife whereby the probability of miscuts is greatly lessened and the use of which is not difficult to learn. Furthermore, in the use of my knife, it becomes unnecessary and, in fact, undesirable to roll the belly, thus eliminating an expensive step in the handling thereof.

In the accompanying drawings, I have illustrated one form of knife which embodies my invention, and in which like numerals designate like parts throughout:

Figure 1 is a plan view showing my knife in use,

Fig. 2 is a perspective view of the knife detached,

Fig. 3 is a sectional view showing the angle at which a knife operates,

Fig. 4 is a view of a holding member, particularly adapted for use in connection with my knife, and

Fig. 5 is a detail view of a portion of a knife blade.

Referring now more particularly to the drawings, the numeral 10 designates a flexible blade. The ends of the blade 10 are bent upwardly on line lying at an angle of 45° to the blade proper, and 90° to one another, as clearly illustrated in Fig. 2, the up-bent portions of the blade being substantially at right angles to the blade proper. The short side of the blade is provided with a cutting edge 12.

The up-bent ends 13 of the blade 10 are twisted, as at 14, so that the upper ends thereof lie in substantially parallel planes. The ends 13 are provided below the twisted portions thereof with cutting edges 13′. A handle 15 is provided embodying a cross bar, provided at its ends with angular hand grips 16, having down-bent portions which are bifurcated, to receive the upper ends of the up-bent portions 13, the hand grips 16 being disposed at an angle of approximately 25° to the transverse plane of the body portion of the blade. These up-bent portions are secured to the handle by any desirable means, such as rivets 18.

In use, the knife is started at the end of the ribs at an angle of 45° thereto, so that one end of the knife has its up-bent portions 13 cutting through the outer ends or joints of the ribs, as clearly shown in Fig. 1. Due to the twisted construction of the ends of the blades, and the angle of the hand grips of the handle, the blade in use, is slightly tilted transversely, the cutting edge 12 thereof being uppermost. It will be obvious that, as the cutting edge is uppermost, the blade will have a tendency to cut upwardly. As the ribs prevent this, the blade will, at all times, cut as closely to the ribs as is possible. The twisted ends 13, abutting the ribs, form a guide for the knife and prevent sliding thereof, and will allow of the knife being drawn beneath the ribs rapidly, without any probability of miscuts.

In order to hold the belly sections to use my improved knife, I have found it necessary to provide a holding means different in construction from those at present available. This holding means comprises a pair of spaced angle irons 19 and 20, which are secured to the table 21 in any desired man-

ner. The upstanding portions of the angle irons are provided with alined apertures through which extend sticking pins 22, these pins being secured to one of the angle irons, as at 23.

In operation, the end of the belly bearing the longer portion of the ribs is drawn against the points of the sticking pins 22. These pins enter firmly into the flesh and hold the belly stationary during the operation of cutting, the angle irons being of such height that the blade in completing the cut, passes over the tops thereof without coming into contact therewith.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same, and that various changes in the shape, size, and arrangement of parts may be resorted to without departing from the spirit of my invention or the scope of the subjoined claims.

Having thus described my invention, I claim:

1. In a knife of the type described, a blade comprising a substantially rectangular member having a cutting edge, the ends of the blade being bent upwardly, said bends being at an obtuse angle to the cutting edge of the blade.

2. In a knife of the type described, a blade having a cutting edge, the ends of the blade being bent upwardly, said bends being at an obtuse angle to the cutting edge of the blade, and cutting edges formed on the bent-up portions thereof.

3. In a knife of the type described, a blade having its ends bent upwardly at approximately right angles to the body portion thereof, said bends being on lines at an angle to the edges of the body portion, and hand grips secured to said up-bent ends and disposed at an angle of approximately 25° to the transverse plane of the body portion of the blade.

4. In a knife of the type described, a blade having its ends bent upwardly at approximately right angles to the body portion thereof, said bends being on lines at an angle of approximately 45° to the edges of the body portion and at an angle of approximately 90° to one another.

5. In a knife of the type described, a blade having its ends bent upwardly at approximately right angles to the body portion thereof, said bends being on lines at an angle to the edges of the body portion and at an angle to one another, whereby said body portion is provided with long and short edges, said body portion being provided upon the short edge thereof with a cutting edge.

6. In a knife of the type described, a blade having its ends bent upwardly at approximately right angles to the body portion thereof, said bends being on lines at an angle of approximately 45° to the edges of the body portion and at an angle of approximately 90° to one another, whereby said body portion is provided with long and short edges, said body portion being provided upon the short edge thereof with a cutting edge, and hand grips secured to said up-bent ends and disposed at an angle to the transverse plane of the body portion of said blade.

7. The combination with a ribbing knife for pork bellies, of means for holding the bellies in position for cutting, comprising a pair of angle irons adapted to be secured to a suitable support in spaced relation, alined apertures formed in corresponding flanges, of said angle irons, and sticking pins extending through said apertures and secured to one of said angle irons.

8. In a knife of the type described, a blade having a cutting edge, the ends of the blade being bent upwardly, said bends being at an obtuse angle to the cutting edge of the blade, the end of said up-bent portions being twisted and arranged in parallel planes, and hand grips secured thereto, said hand grips being arranged at an acute angle thereto.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE C. MORRISON.

Witnesses:

R. SHAVER,

S. R. MCINTOSH.