

United States Patent Office.

JOHN E. SMITH, OF BUFFALO, NEW YORK.

Letters Patent No. 104,506, dated June 21, 1870; antedated June 15, 1870.

IMPROVED MEAT-CUTTER.

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, JOHN E. SMITH, of the city of Buffalo, in the county of Erie, in the State of New York, have invented certain new and useful Improvements in Meat-Cutters; and I do hereby declare that the following description thereof is sufficiently clear and exact to enable others skilled in the art to which it appertains, or to which it is most nearly connected, to make, construct, and use the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 represents a perspective view.

Figures 2 and 3, a plan of the cross-head and the arrangement of the parts for attaching and fastening the knives in place.

The nature of my invention consists in the arrangement of a meat-cutting device with a steam-engine placed directly under it, and having the piston-rod constructed so that the cross-head and knives may be attached to and move with it, the same being provided with a rubber spring to ease its motions and a feather to prevent it from turning, the whole being combined and arranged as more clearly hereinafter shown.

Like parts are represented by like letters in the several figures.

In Figure 1—

A represents a steam-engine, which is placed below the cutting devices in such a position as to be compact and out of the way.

As the engine is constructed in the ordinary manner peculiar to steam-engines, a close description of the engine itself is not necessary here.

B represents the piston-rod, to which the cross-head C, with cutting mechanism, is attached. It runs directly up through the center of the cutting-block, as shown in fig. 1.

The piston-rod B may be, if necessary, divided in or near the center, and the two parts connected together by means of a key or other equivalent device, without altering the nature of the invention.

D represents a feather of the upper part or division of the piston-rod, which fits into a key-way made in the hole through the cross-head, so as to prevent it from turning when fastened to the same.

The collar E and nut F hold the cross-head in place. G represents a rubber spring and washer, placed between the nut F and the top of the cross-head.

The letters H, H¹, and H² represent the cutting-knives.

They are six in number, although more or less may be used, if required.

They are fastened to the cross-head by bolts marked J, J, J' and J', and the manner of attachment will be more readily understood by reference to figs. 2 and 3, in which fig. 3 is a plan of the cross-head, with the part K, holding the knives H and H¹, taken off.

The opposite part, K', may likewise be taken off, both being made removable, so that the center knives may be easily attached or detached.

The part K fills the space L when in position. All the parts are held firmly together by the bolts J, J, J', and J', as shown.

The device for giving the required movements to the meat-box S² and block, consists of the friction-wheel M, which gives motion to the friction-wheel N, which transmits its motion to the friction-wheels O and P, pinion Q, spur-wheel R, and pinion S, which gives the necessary movement to the meat-box by means of the toothed ring T.

The friction-wheels, working without noise, are far preferable to toothed gearing. They are made with rubber or other equivalent material, fastened to the face of the wheels. Belts may be used in their place, if desired, without changing the nature of the invention.

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

The engine A, piston-rod B, provided with the feather D, collar E, nut F, and rubber spring G, in combination with the parts K and K' and cross-head C, the whole being constructed and arranged substantially as and for the purposes described.

JOHN E. SMITH.

Witnesses:

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