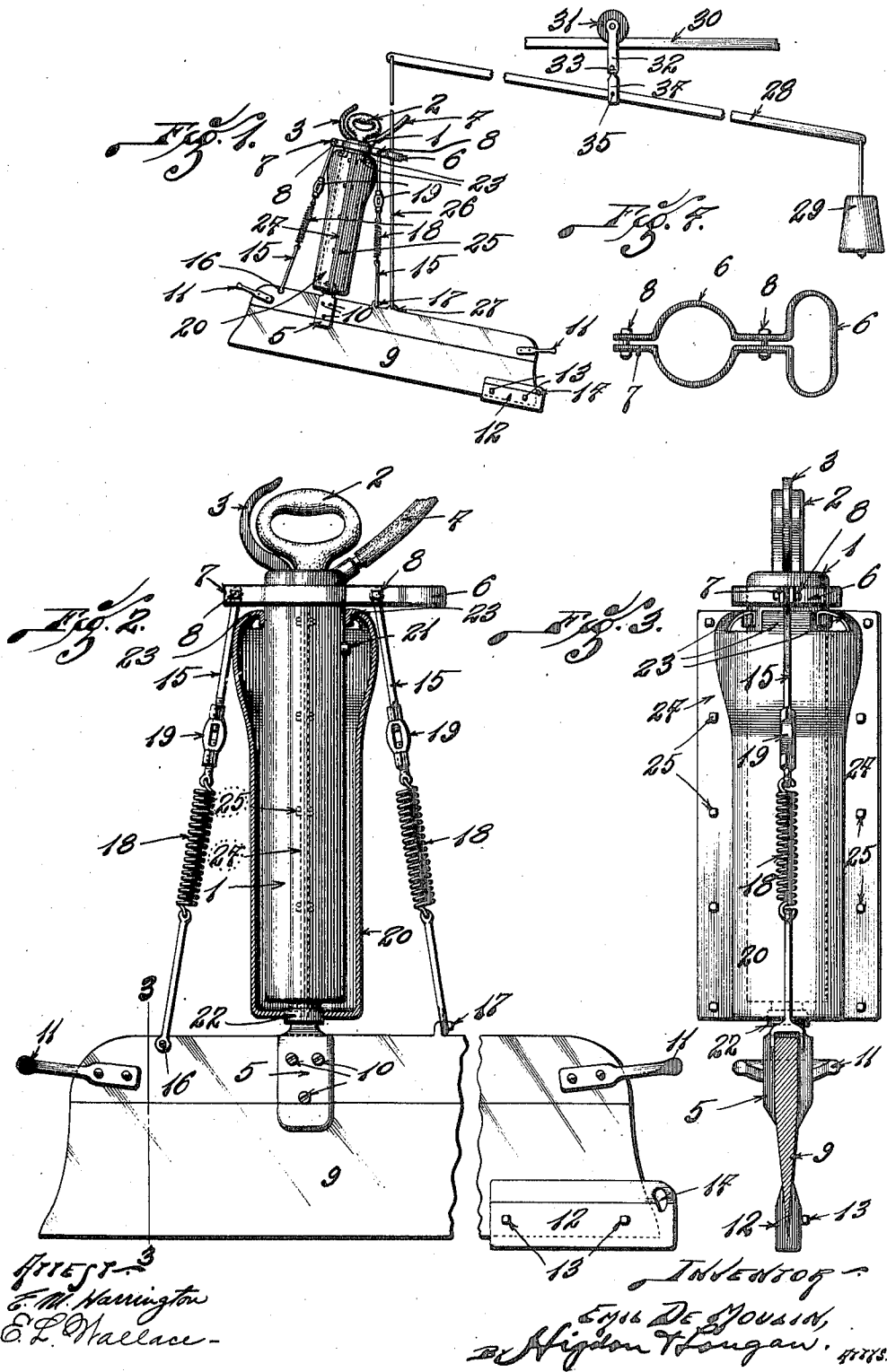


E. DE MOULIN.
PNEUMATIC HOG AND CATTLE SPLITTER.
APPLICATION FILED SEPT. 16, 1912.

1,060,169.

Patented Apr. 29, 1913.



UNITED STATES PATENT OFFICE.

EMIL DE MOULIN, OF NATIONAL CITY, ILLINOIS.

PNEUMATIC HOG AND CATTLE SPLITTER.

1,060,169.

Specification of Letters Patent.

Patented Apr. 29, 1913.

Application filed September 16, 1912. Serial No. 720,580.

To all whom it may concern:

Be it known that I, EMIL DE MOULIN, a citizen of the United States, and resident of National City, St. Clair county, Illinois, have invented certain new and useful Improvements in Pneumatic Hog and Cattle Splitters, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to an improved pneumatic hog and cattle splitter, and consists in the novel construction hereinafter described and pointed out in the appended claims.

The object of my invention is to provide an improved pneumatic butchering tool in the form of a pneumatic cleaver, especially adapted for the use of butchers in packing houses during the performance of the operation known as splitting the carcasses of hogs and cattle.

A further object of my invention is to provide an improved pneumatic cleaver which may be handled by one man to more quickly perform the operation of splitting hogs and cattle than has heretofore been done by the use of the hand cleaver.

In the drawings: Figure 1 is a side elevation of my improved pneumatic cleaver; Fig. 2 is a sectional side elevation of the pneumatic hammer portion of the device on an enlarged scale; Fig. 3 is an end elevation, the section being taken on the line 3—3 of Fig. 2; and Fig. 4 is a detailed plan view of a guide loop used at the upper end of the pneumatic hammer.

The numeral 1 indicates a well known form of pneumatic hammer, having the usual handle 2 and compressed air control lever 3 at its upper end. The said pneumatic hammer is also provided with the usual compressed air supply pipe 4, which communicates with the interior of said hammer in the usual manner; whereby whenever the said control lever 3 is moved toward said handle 2, the supply of compressed air will be delivered through said pipe 4 to the interior of the said hammer and cause the hammer piston to vibrate therein in the usual manner, and cause a corresponding vibration of the bifurcated knife holder 5, the said knife holder being connected at its upper end to the hammer piston or piston hammer, as the case may be.

6 indicates a guide loop, which embraces the upper portion of the pneumatic hammer 1 and is secured thereto by means of perforated clamping ears 7 and bolts 8, which pass through the perforations of said ears. The numeral 9 indicates a knife, which is detachably secured within the bifurcation of the said knife holder 5 by means of suitable screws or rivets 10. The knife 9 is thickest at its upper edge and gradually tapers toward its cutting edge, as shown in Fig. 3. Each end of the knife is provided with a handle 11.

The numeral 12 indicates a knife guard which is applied to the cutting edge of the knife at one end thereof and secured in position by means of suitable bolts or screws 13; so that said guard may be applied to either end of the knife to protect the fingers of the operator at that end in manipulating the device.

14 indicates a hand hole formed in one end of said guard 12 and by means of which the guard may be suspended from a nail or pin when not in use.

The numeral 15 indicates spring braces which extend diagonally from the bolts 8 of the guide loop to the upper edge of the knife 9, to which they are detachably secured by means of screws or bolts 16 or integral hooks, such as 17, formed upon the upper edge of the knife. Intermediate of their ends said braces 15 are each provided with a coil spring 18 and a turn buckle 19, the purpose of which is obvious.

The numeral 20 indicates an oil guard which almost completely embraces and incloses the pneumatic hammer 1, except the upper end thereof, mainly for the purpose of preventing the discharge of lubricating oil from the exhaust pipe 21. I have found by experimentation that oil discharged from the exhaust pipe will contaminate the meat and injure the value thereof, and hence I have provided the said oil guard 20. The lower end of the oil guard 20 tightly fits the tool guide 22 of the pneumatic hammer to prevent possible leakage of oil. The upper end of the oil guard 20 is open, but is provided with integral radial brackets or fingers 23, which engage the outer surface of the pneumatic hammer 1. The said oil guard 20 is preferably formed in mating halves, which are provided with meeting opposite flanges 24, which are clamped together by bolts or

screws 25, thus securing the guard in position upon the hammer.

The numeral 26 indicates a supporting rod or cable, the lower end of which is secured to a perforated ear 27, upon the upper edge of the knife 9, and the upper end of said rod or cable is secured to a counter balance bar 28 for supporting my pneumatic cleaver during operation. Suspended from the opposite end of the counter balance bar 28 is a counter balance weight 29, the purpose of which is obvious and need not be further explained.

The numeral 30 indicates a common trolley track, such as is used in packing and slaughter houses, upon which runs the usual trolley 31, to the hanger 32 of which is pivotally secured by means of a swivel joint 33 the counter balance hanger 34, and said counter balance bar 28 is pivotally connected to said hanger 34 by means of a pivot 35.

It will be observed that the pneumatic hammer is applied to the knife 9 at a point nearer one end of the knife than the other, so that a portion of the opposite end of the knife may be used as a handle in manipulating the device, but it will also be observed that the ends of said knife are interchangeable, provision being made for applying the pneumatic hammer at a point adjacent either end of said knife.

In operation, the pneumatic cleaver is suspended from the track 30 as shown in Fig. 1, and is preferably used in splitting the carcasses of hogs and cattle by applying the cutting edge of the knife 9 to the upper end of the carcass, then turning on the air by means of the control lever 3, which will cause a series of vibrations to be applied to said knife, thereby driving it down through the carcass from the top to the bottom thereof.

By the use of my invention, one man can do the work of a number of men supplied with the usual hand cleavers.

The springs 18 of the braces 15 permit the knife 9 to vibrate vertically during operation.

I claim:

1. The combination of a pneumatic hammer having the usual compressed-air pipe control-lever and handle at its upper end, a guide-loop also located at the upper end of said hammer, a bifurcated knife-holder at the lower end of the hammer, a knife in said holder, a supporting-ear on the said knife, a supporting device having its lower end attached to said knife-ear and extended therefrom upwardly through said guide-loop,

and braces extending from said guide-loop downwardly to the said knife.

2. A pneumatic cleaver for splitting the carcasses of hogs and cattle, which comprises a pneumatic hammer, a compressed air pipe for supplying compressed air to said hammer, a control lever and a handle at the upper end of said pneumatic hammer, a knife-holder at the lower end of said pneumatic hammer, a knife applied to said knife-holder at a point adjacent one end of said knife, a supporting-ear on said knife, and a brace having its lower end attached to said knife-ear and its upper end connected to an upper part of the tool.

3. The combination of a pneumatic hammer having the usual compressed air pipe control lever and handle at its upper end, a guide loop at the upper end of said hammer, a bifurcated knife holder at the lower end of the hammer, a knife in said holder, and adjustable spring braces extending from said guide loop downwardly to the said knife.

4. The combination of a pneumatic hammer having the usual compressed air pipe control lever and handle at its upper end, a guide loop at the upper end of said hammer, a bifurcated knife holder at the lower end of the hammer, a knife in said holder, braces extending from said guide loop downwardly to the said knife, a handle on each end of said knife and a knife guard to cover a portion of the cutting edge of said knife.

5. A pneumatic cleaver for splitting the carcasses of hogs and cattle, which comprises a pneumatic hammer, a compressed air pipe for supplying compressed air to said hammer, a control lever and a handle at the upper end of said pneumatic hammer, a knife holder at the lower end of said pneumatic hammer, a knife mounted in said knife holder and projecting laterally therefrom, a guard inclosing the exhaust pipe of said hammer to prevent contamination of the meat by a lubricating oil discharging from said exhaust pipe, a counter balance bar, means for suspending said pneumatic hammer from said counter balance bar, a counter balance weight, and a wheeled swivel hanger on said track from which said counter balance bar is pivotally suspended.

In testimony whereof, I have signed my name to this specification, in presence of two subscribing witnesses.

EMIL DE MOULIN.

Witnesses:

WILLIAM DIMILOE,
JOHN C. HIGDON.