

(No Model.)

R. C. ELLRICH.
MEAT CUTTER.

No. 545,785.

Patented Sept. 3, 1895.

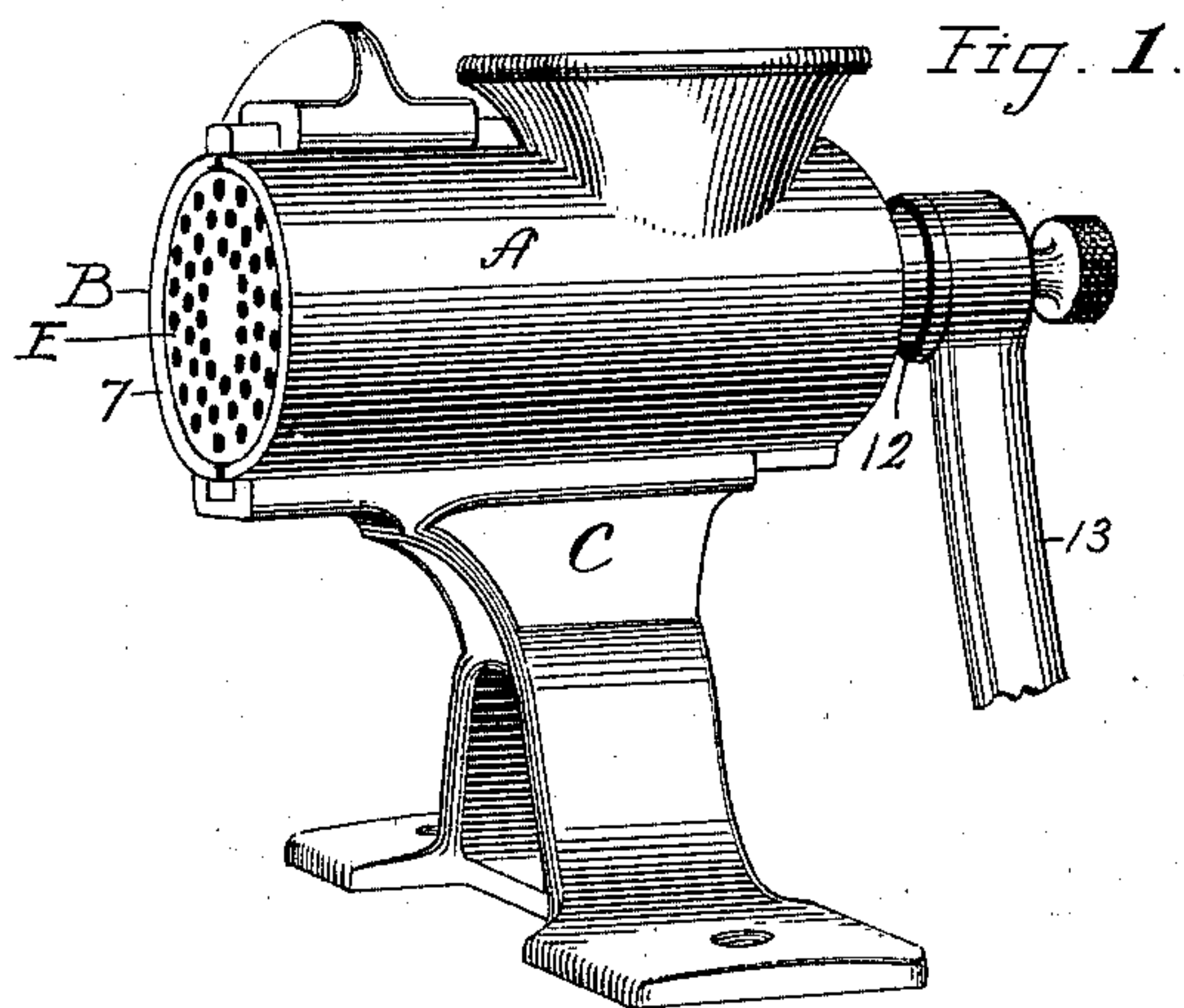


Fig. 2.

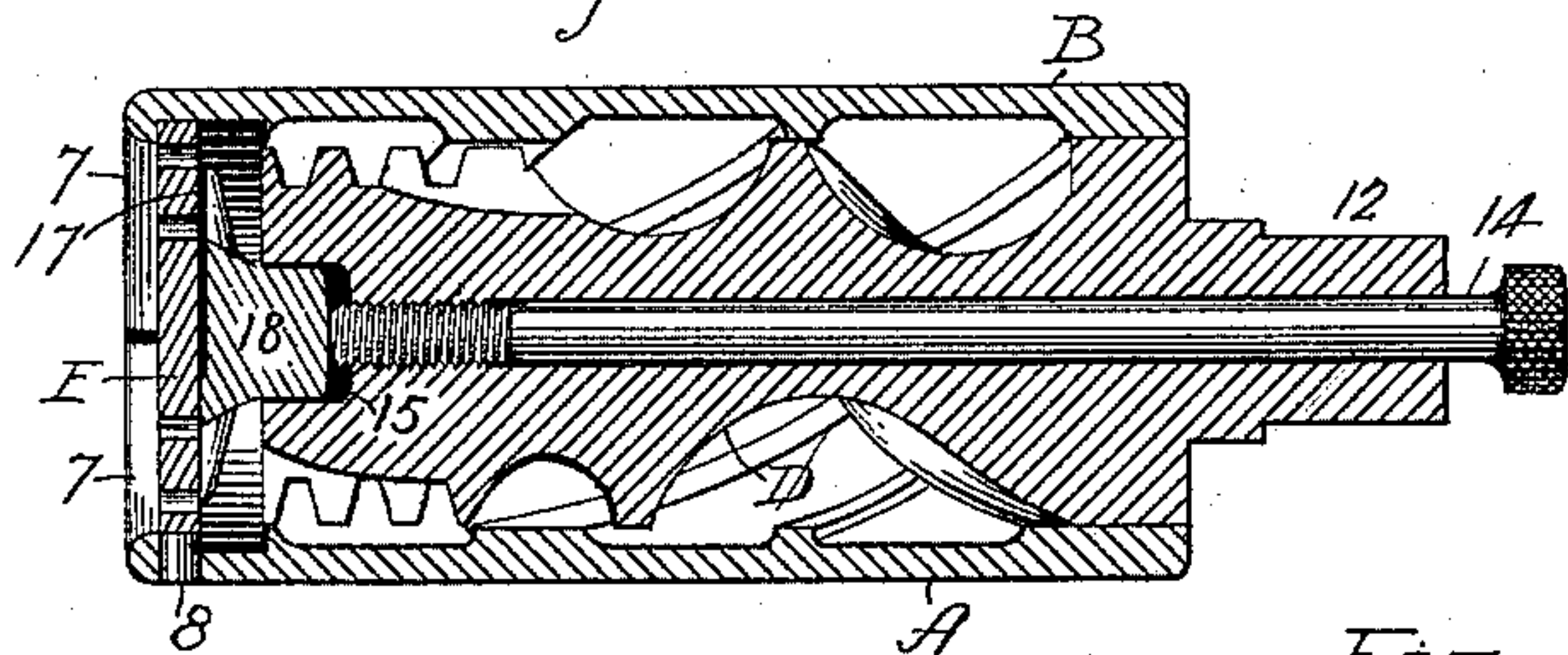


Fig. 3.

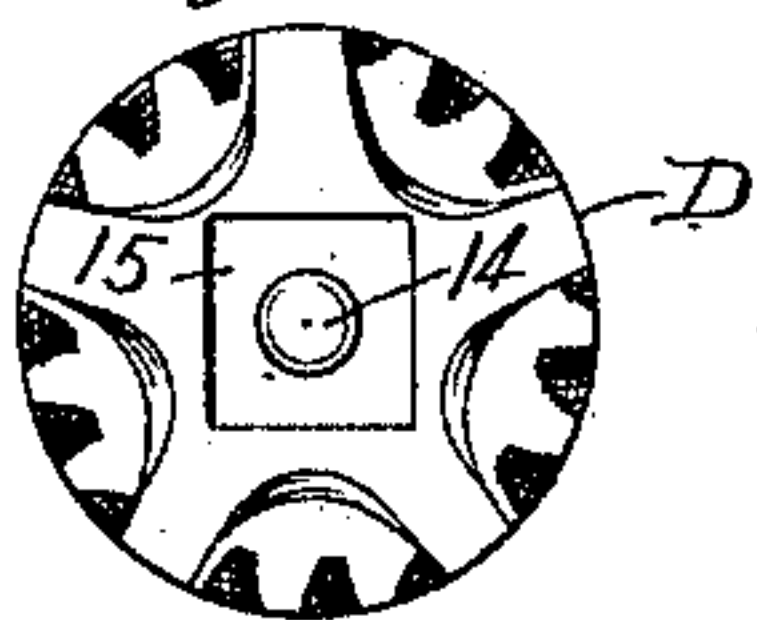


Fig. 4.

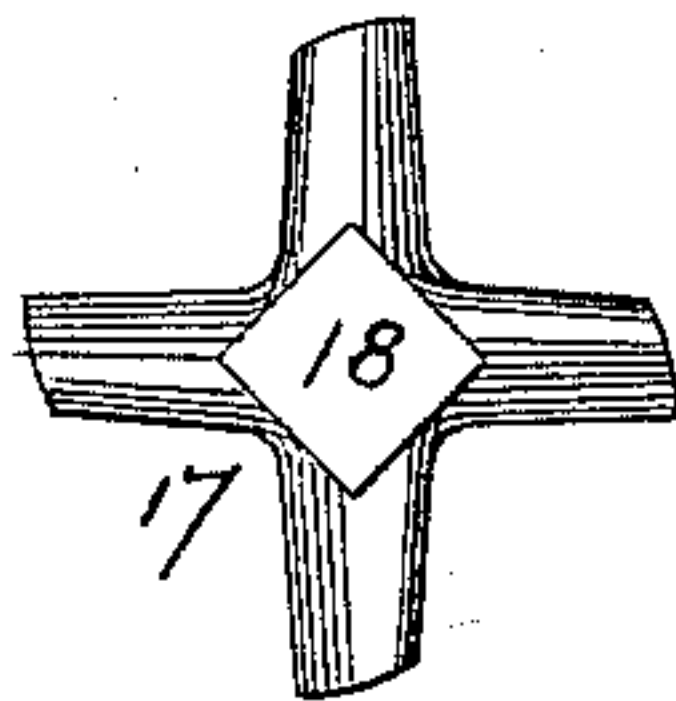


Fig. 5.

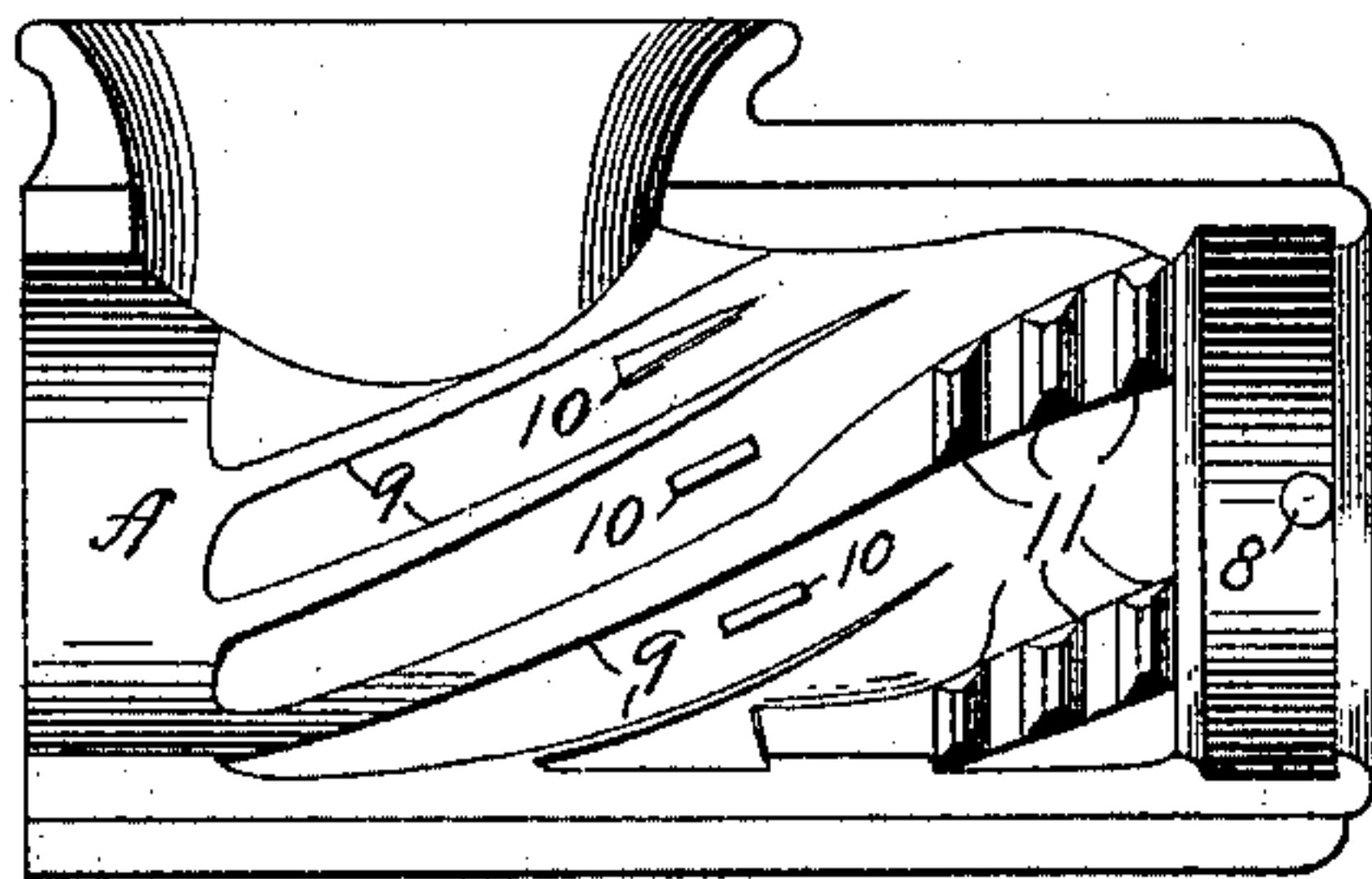
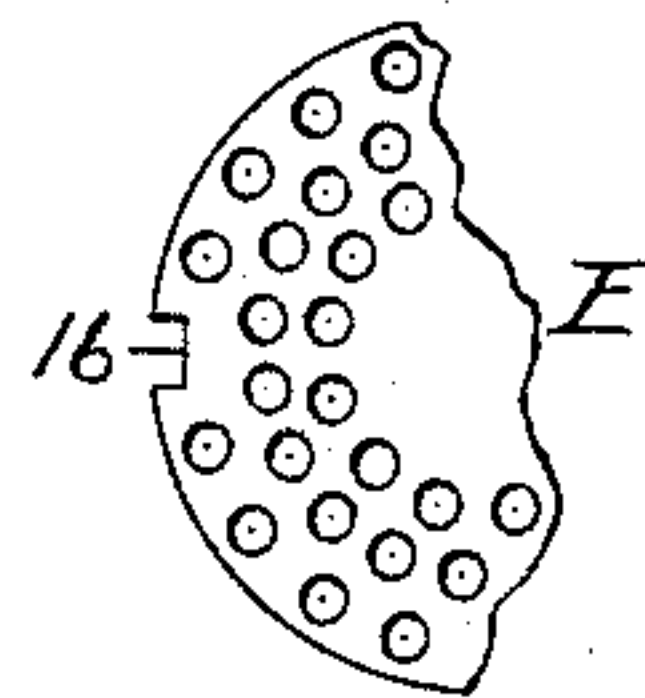


Fig. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

ROBERT C. ELLRICH, OF SOUTHTON, CONNECTICUT, ASSIGNOR TO THE
PECK, STOW & WILCOX COMPANY, OF SAME PLACE.

MEAT-CUTTER.

SPECIFICATION forming part of Letters Patent No. 545,785, dated September 3, 1895.

Application filed March 20, 1895. Serial No. 542,519. (No model.)

To all whom it may concern:

Be it known that I, ROBERT C. ELLRICH, a citizen of the United States, residing at South-
ington, in the county of Hartford and State
5 of Connecticut, have invented certain new
and useful Improvements in Meat-Cutters, of
which the following is a specification.

My invention relates to improvements in
meat-cutters, and the main objects of my im-
10 provement are to increase the efficiency and
durability of the machine and to provide for
the more convenient and better adjustments
of the parts.

In the accompanying drawings, Figure 1 is
15 a perspective view of my meat-cutter. Fig.
2 is a central longitudinal section of the same
with the screw-adjusting rod in elevation.
Fig. 3 is an end view of the screw or com-
bined forcer and cutter. Fig. 4 is an eleva-
20 tion of the knife, showing its inner side. Fig.
5 is a side elevation of one part of the case,
showing its inner side; and Fig. 6 is a plan
view of a portion of the perforated plate.

My invention is in the nature of an improve-
25 ment upon the meat-cutter patented to Amos
Shepard, April 19, 1892, No. 473,166, and is sub-
stantially the same in its general form; but I
have made such changes in the construction
thereof as to adapt it for use in connection
30 with a perforated plate and knife, while at the
same time I provide a new adjustment for the
knife that works against said plate, which
plate and knife are also applicable to other
meat-cutters.

35 On the delivery end of the two parts A B
of the longitudinally divided and separable
case I form an inwardly-projecting ledge 7,
holding said parts together by the clamp-like
standard C, Fig. 1. I also provide one of said
40 parts, preferably the part A, with a steady-
pin or lug 8, adjacent to said ledge 7, as shown
in Figs. 2 and 5. These parts A B may be
otherwise substantially the same as in the
aforesaid patent, with the long and short feed-
45 ing-ribs 9 10 and series of cutting elevations
11, with spaces between, as shown in my Fig. 5.

The combined forcer and cutter, which for
convenience I will call the "screw" D, is made
to fit the case, and is provided with a shank or
50 shaft-like projection 12, for the attachment
of any suitable crank, as shown by the crank

end 13, the crank being represented as broken
off in order to economize space. This screw
is bored through longitudinally, with a por-
tion of the bore threaded and a screw-ad- 55
justing rod 14 screwed therein, as shown. In
the center of the delivery end of the screw
I form an angular socket 15. A perforated
plate E, preferably of disk form—that is hav-
ing two like sides—is placed between the two 60
parts of the case, just inside the ledge 7, and
with the pin or lug 8 projecting into the notch
16, Fig. 6, of said plate. Inside of said per-
forated plate is a knife 17, with any desired
number of arms, preferably four, and an in- 65
wardly-projecting angular hub 18, which is
fitted loosely to and rests within the angular
socket in that end of the screw.

After use the principal parts will be sepa-
rated for cleaning. When it is desired to use 70
the machine again, the knife-hub is placed
within its socket at the end of the screw D,
the screw and knife together placed within one
of the parts of the case, preferably the part
A, the perforated plate placed in position be- 75
tween the ledge 7 and the knife, and with the
notch 16 in engagement with the pin 8, the
other part of the case put on over the screw,
knife, and plate, and the whole secured with-
in the standard. The crank may not have 80
been taken off, but if so the knurled head of
the screw-adjusting rod 14 is small enough so
that the crank can be put on without remov-
ing said rod. This rod is then turned to force
the knife properly against the perforated 85
plate. The same act will also have a tendency
to force one side of the cutting elevations on
the case and engaging side walls of the
grooves in the screw into active engagement,
even if the two parts of the case have not 90
been firmly bound upon the screw or in case
they are worn so as not to fit. The action
of the screw and case on the meat is the same
as in the aforesaid patent, the first part of the
screw near the hopper forcing the meat along, 95
while the cutting elevations of the screw and
case act to cut the meat to a greater or less
extent, dependent upon the number of cut-
ting elevations and the pitch of the grooves
and ribs on the screw. The pitch at the cut- 100
ting elevations can be varied at pleasure to
obstruct the flow of the meat or to let it flow

more rapidly. After passing the end of the screw the meat is further reduced by the action of the perforated plate and the knives bearing thereon. In this machine the screw
5 is firmly held in its bearings by being bound at its peripheral portion by the two parts of the case, so that it cannot rock to make the knife accommodate itself to the face of the perforated plate.

10 By having the knife arranged as described, with the rounded end of the screw-adjusting rod bearing on the end of its hub like a pivot or step, the knife is free to rock and accommodate itself to the inner face of the perforated plate, so as to insure a good cutting
15 bearing thereon at all points.

I prefer in all cases to employ a case and screw which shall materially cut the meat before it reaches the perforated plate, as meat
20 so cut is believed to run through the perforated plate more readily and with greater ease than when the perforated plate and knife alone are depended upon to do the principal cutting; but it is evident that while my improved plate and knife are particularly adapted
25 to co-operate with the particular screw and case herein described, the construction is also adapted to an ordinary forcing-screw and case in which the principal cutting is done
30 by the perforated plate and its knife. I also prefer to make the angular knife-holding socket in the end of the screw and the angular hub as a projection on the knife; but the projection and socket might be reversed and
35 have the same screw-adjusting rod act in connection therewith.

I claim as my invention—

1. The combination of a meat cutter case, its screw, the knife fitted thereto by an engag-

ing angular recess and projection, the perforated plate and the screw adjusting rod extended through said screw for forming a step or pivot upon which the knife may rock, substantially as described and for the purpose specified. 40

2. The combination of a two part longitudinally divided and separable case having cutting elevations near its delivery end, said case being extended beyond said elevations, a combined forcing and cutting screw having cutting elevations extended to and running out at its delivery end, said end being fitted to said cutting elevations and supported axially by means of the peripheral bearing contact therewith in contradistinction to being supported in plain bearings, and a perforated plate and knife made separately from said case and screw but attachable to and detachable from the same and confined within the case in the space between the delivery end of
50 said screw and the delivery end of the case, substantially as described and for the purpose specified. 55

3. The combination of a longitudinally divided and separable case having a series of cutting elevations, a combined forcing and cutting screw having a series of peripheral grooves in bearing contact with said elevation, a perforated plate and knife, and an adjusting device for forcing said plate and knives
60 against each other and at the same time forcing the cutting elevations and grooves of the screw and case into engagement, substantially as described and for the purpose specified. 65

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Witnesses:

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