

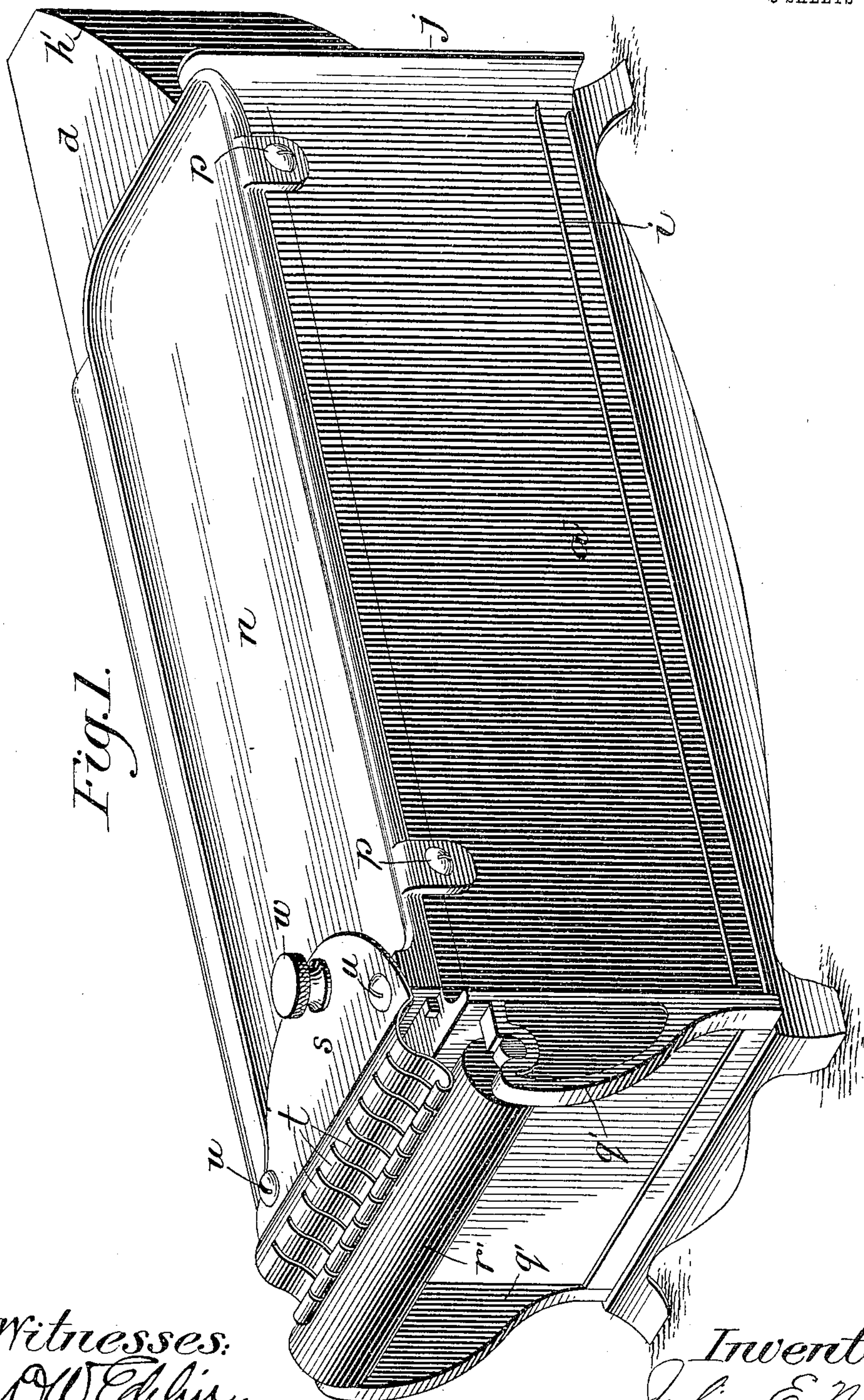
No. 816,176.

PATENTED MAR. 27, 1906.

J. E. NACHOD.
ENVELOP SEALING APPARATUS.

APPLICATION FILED NOV. 10, 1905.

3 SHEETS—SHEET 1



Witnesses:
O. W. Edlin.
A. Grant.

Inventor:
Julius E. Nachod.
By Lemue + Goldbrough
attys.

No. 816,176.

PATENTED MAR. 27, 1906.

J. E. NACHOD.
ENVELOP SEALING APPARATUS.

APPLICATION FILED NOV. 10, 1905.

3 SHEETS—SHEET 2.

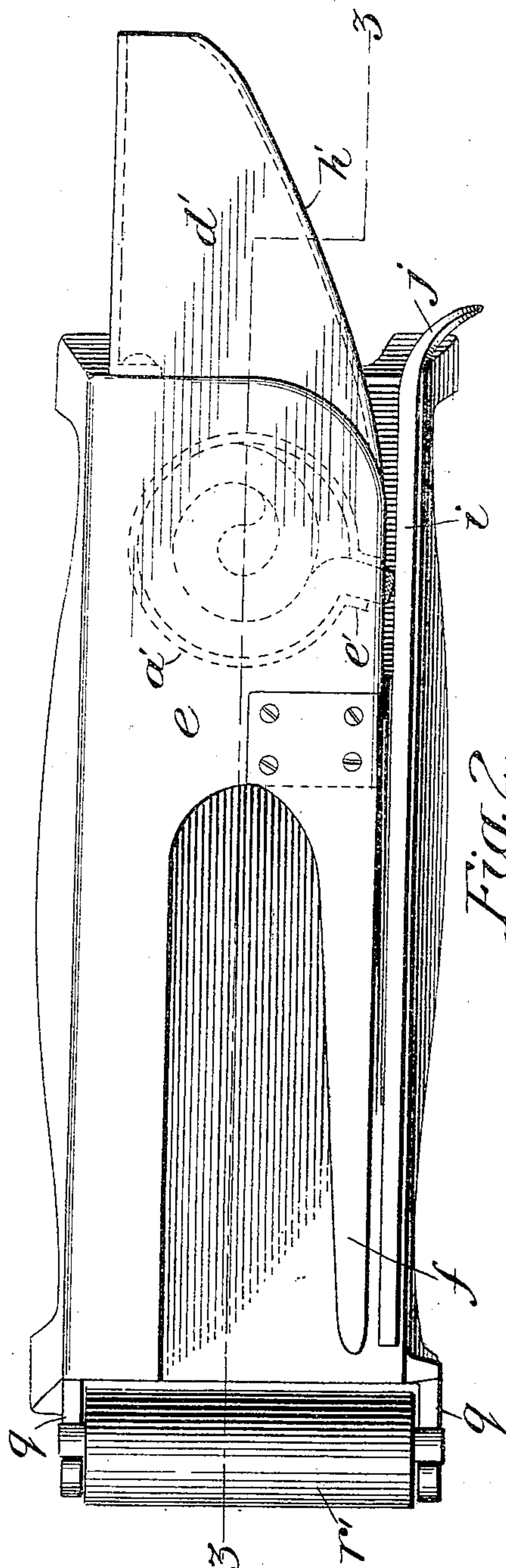


Fig. 2.

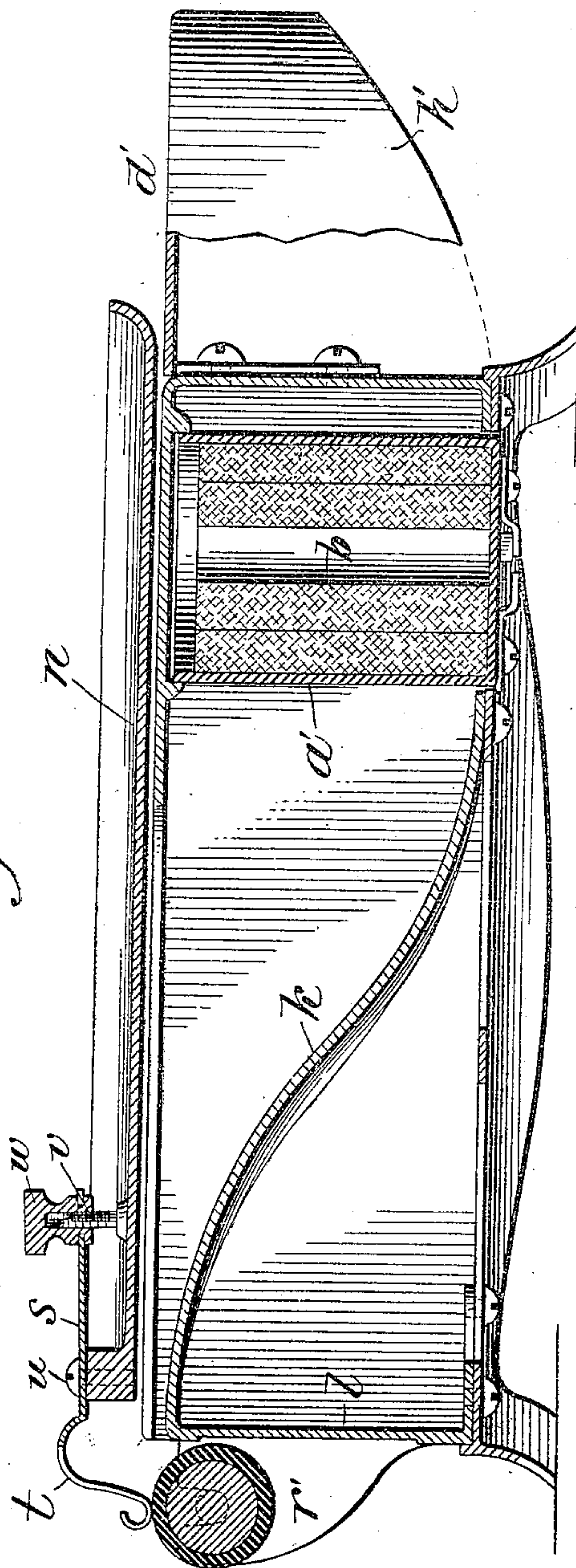


Fig. 3.

Witnesses:
D. W. Edlin.
R. Crout.

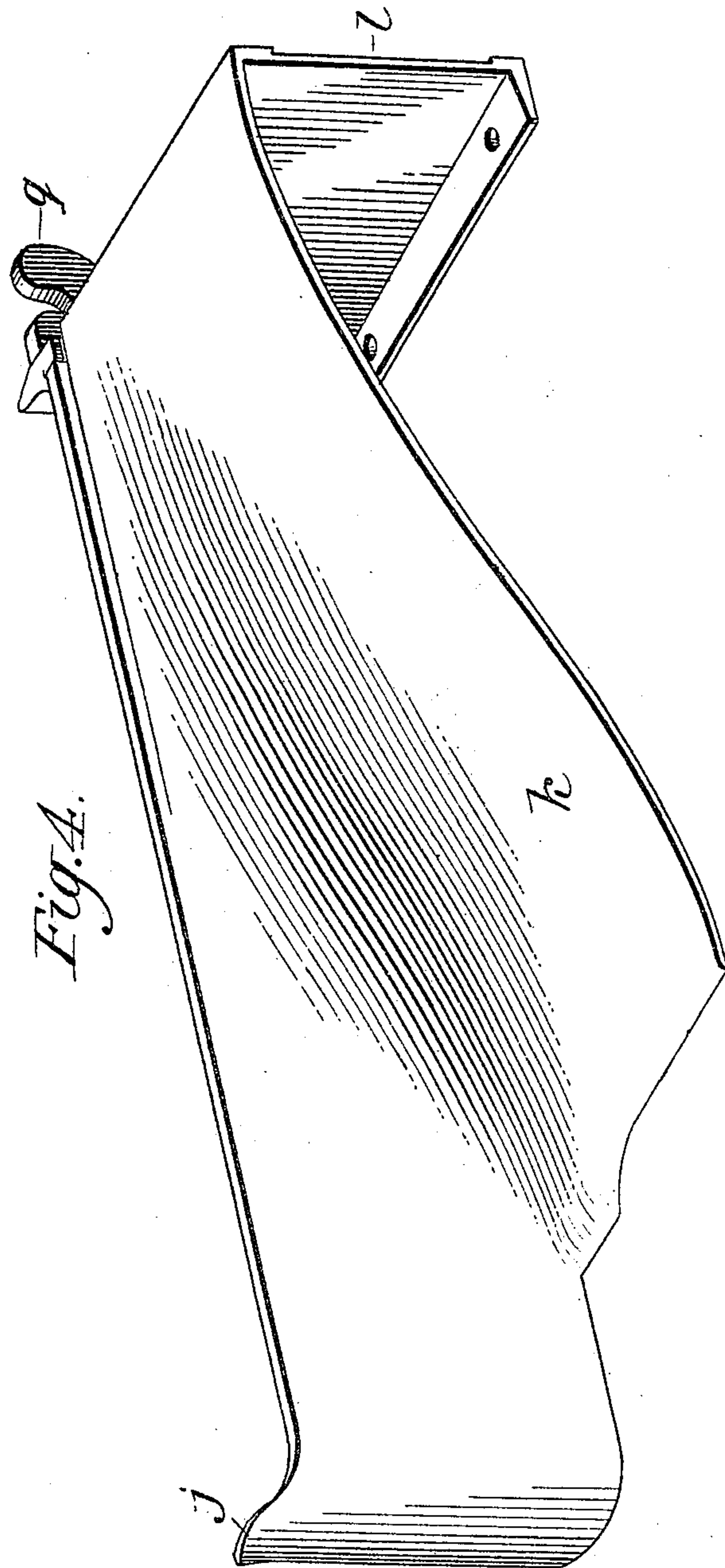
Inventor:
Julius E. Nachod.
By Henry Goldbrough.
Attys.

No. 816,176.

PATENTED MAR. 27, 1906.

J. E. NACHOD.
ENVELOP SEALING APPARATUS.
APPLICATION FILED NOV. 10, 1905.

3 SHEETS—SHEET 3.



Witnesses:
O. W. Edlin.
M. C. Brauner.

Inventor:
J. E. Nachod
Hummel & Sells, Attorneys.

UNITED STATES PATENT OFFICE.

JULIUS E. NACHOD, OF PHILADELPHIA, PENNSYLVANIA.

ENVELOP-SEALING APPARATUS.

No. 816,176.

Specification of Letters Patent.

Patented March 27, 1906.

Application filed November 10, 1905. Serial No. 286,689.

To all whom it may concern:

Be it known that I, JULIUS E. NACHOD, a citizen of the United States, residing in Philadelphia, county of Philadelphia, State of Pennsylvania, have invented certain new and useful Improvements in Envelop-Sealing Apparatus; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain novel and useful improvements in envelop-sealing apparatus, and more particularly to the means for forcing the moistened flaps against the body of the envelop in the final operation preparatory to discharging the envelop from the machine.

While the invention is capable of application to envelop-sealing machines generally, it is especially adapted to the particular type of sealing apparatus shown and described in my prior application for Letters Patent, filed June 20, 1905, Serial No. 266,149.

In the accompanying drawings, Figure 1 is a perspective view of an envelop-sealing apparatus embodying the invention. Fig. 2 is a plan view of the same with the top plate removed. Fig. 3 is a vertical longitudinal section on the line 3 3 of Fig. 2. Fig. 4 is a perspective view showing the arrangement of the guide-walls.

Referring to the drawings, *a* indicates the casing of the apparatus, which is provided with a platform *e*, over which the body of the envelop is passed, and a side plate *i*, which serves to guide the flap and hold the latter against the wick *b* of the moistening device *a'*, substantially as in the apparatus described in my application aforesaid. In the angle between the end wall *l* and the side wall *i* the apparatus is provided with a guide-wall *k*, which springs from the side wall *i* and gradually merges into a plane parallel with that of the platform *e*, so that as the envelop is drawn across the platform *e* the flap, first having been moistened by the wick *b*, is engaged by the twisted or skewed guide-wall *k* until it is brought into substantial parallelism with the body of the envelop, from which it is separated by the knife-like prolongation *f* of the platform *e*.

Thus far the apparatus is practically the same as that described in my prior application hereinbefore noted both as to general structure and mode of operation. In the

former apparatus, however, the final sealing operation was accomplished by means of two rollers placed at the discharge end of the machine, the lower roller being mounted upon suitable bearings supported by the end plate and the upper roller being carried in bearings on a spring-pressed presser-plate overlying the top of the apparatus and under which the body of the envelop was passed. After the flap of the envelop had been folded up toward the body the envelop was passed through the rollers, which forced the flap and body together and completed the sealing operation. In order to accommodate envelops of varying thickness, the roller end of the presser-plate was capable of vertical movement, and preferably an auxiliary spring was applied to the outer end of this presser-plate to pull the upper roller into engagement with the lower roller. This apparatus was found to be quite efficient as long as individual envelops did not vary in thickness; but when it was attempted to seal envelops in which there were formed ridges or depressions, due to the presence of irregular articles, it was found that the upper roller would be moved as a whole a distance equal to the greatest thickness of the envelop, with the consequent result that in many instances the flap would not be engaged by the roller at all and the envelop would not be closed. The present invention contemplates the provision of means for effectively sealing the envelops under all circumstances, whether the latter be thin or bulky and whether the contents be uniform or irregular.

The upper presser-plate *n*, which overlies the top of the machine, is in the present instance secured to the casing by suitable side lugs, which are engaged by screws *p*, let into the side wall *i*, so that said presser-plate is formed as a rigid part of the apparatus. On the rear edge of the presser-plate *n* is attached, by means of suitable screws *u*, a plate *s* of spring metal, the forward edge of which is divided into a series of individually-yieldable members or fingers *t*, said fingers being first bent upward from the plane of the plate *s* and thence downward and outward until they rest upon the surface of the roller *r'*, mounted in the brackets *q'*. In order to vary the pressure of the spring-teeth upon the roller-surface, the forward end of the plate *s* is connected to the presser-plate *n* by means of an adjustable nut *w*, swiveled to said plate and engaging a stationary screw pro-

jecting from the upper surface of the plate *n*. By turning the nut *w* up or down on the screw *v* the pressure of the spring-teeth *t* on the roller *r* may be increased or diminished
5 at will.

In order to effect a smoother and more uniform feed of the envelops through the machine and to insure the proper opening of the flaps as they enter the machine, the forward
10 end is provided with an extended guide-apron *h'*, whose horizontal portion *d'* forms an extension of the platform *e*. The vertical surface of said guide-apron affords a gradually-curved guide-wall, which opens the flap
15 when the envelop is drawn over the top surface *d'* and directs said flap into the flaring throat between the outwardly-curved lip or edge of the side wall *i* and the adjacent edge of said guide-apron *h'*.

It will be apparent that the envelops are
20 passed through this apparatus in substantially the same manner that they are in the former machine, the flap being opened and passed in contact with the projecting wick *b*
25 of the moistening device, as the body of the envelop is slid over the platform *e*. As the envelop passes over the roller *r'* its upper face is engaged by the spring-fingers *t* of the plate *s*, which forces the body and flap firmly
30 together with a substantially even pressure throughout. Should the envelop contain any irregular article or should the papers therein be bunched to produce a protuberance at any portion of the envelop, the seal-
35 ing operation will be carried out just as effectively as if the envelop were of uniform thickness throughout, for the reason that as each of the spring-fingers *t* is capable of yielding independently of the others the particu-
40 lar finger or fingers under which the thicker portions of the envelop passes will be lifted, while the remaining fingers will still continue to press upon the other portions of the envelop, so that the whole surface of the en-
45 velop will be pressed by the spring-fingers and every portion of the flap will be forced

firmly against the body, thereby assuring an effective sealing of the envelop.

What I claim is—

1. In an envelop-sealing apparatus, the
50 combination of a casing having a platform for supporting the body of the envelop, a lateral wall at an angle to the platform for guiding the flap, a moistening device adja-
55 cent to said lateral wall, a guide-wall for closing the flap on the body, and means for pressing the flap against the body comprising a series of independently-yieldable fingers adapted to engage the envelop transversely
60 of its path of travel.

2. In an envelop-sealing apparatus, the
combination of a casing having a platform for supporting the body of the envelop, a lateral wall at an angle to the platform for guiding the flap, a moistening device adja-
65 cent to said lateral wall, a guide-wall for closing the flap on the body, and means for pressing the flap against the body comprising a roller and a series of independently-yieldable fingers coöperating therewith to engage
70 the envelop transversely of the path of travel.

3. In an envelop-sealing apparatus, the
combination of a casing having a platform for supporting the body of the envelop, a
75 lateral wall at an angle to the platform for guiding the flap, a moistening device adjacent to said lateral wall, a guide-wall for closing the flap on the body, and means for pressing the flap against the body comprising
80 a roller mounted at the end of said platform, a plate mounted above said roller and having a series of spring-fingers coöperating with the roller to engage the envelop transversely of
85 its path of travel.

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

JULIUS E. NACHOD.

Witnesses:

EDGAR C. VAN DYKE,
D. P. HIBBERD.