

No. 729,127.

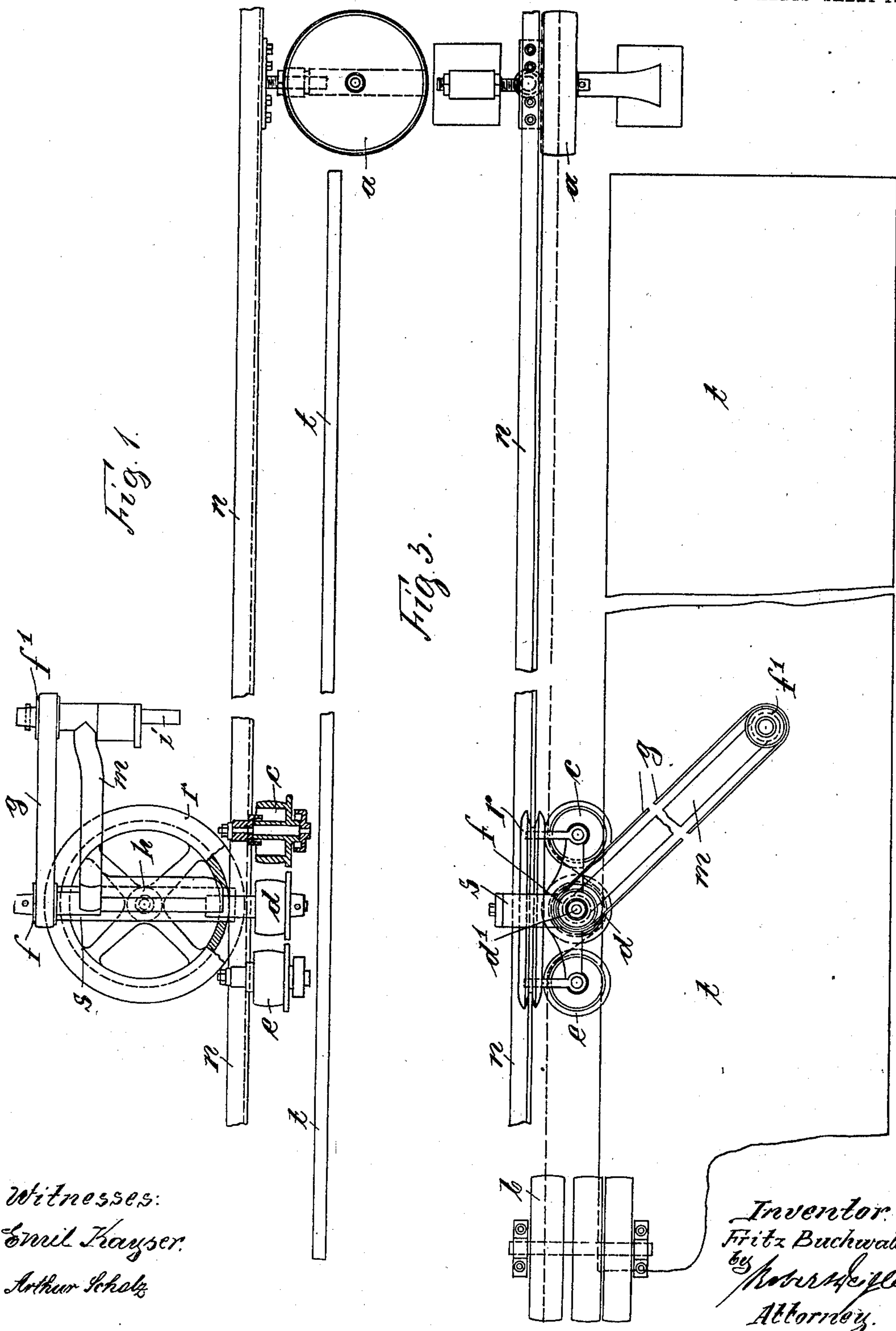
PATENTED MAY 26, 1903.

F. BUCHWALD.  
CLOTH CUTTING MACHINE.

APPLICATION FILED APR. 4, 1900.

NO MODEL.

3 SHEETS—SHEET 1.



Witnesses:  
Emil Kayser.  
Arthur Scholz

Inventor:  
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3 SHEETS—SHEET 2.

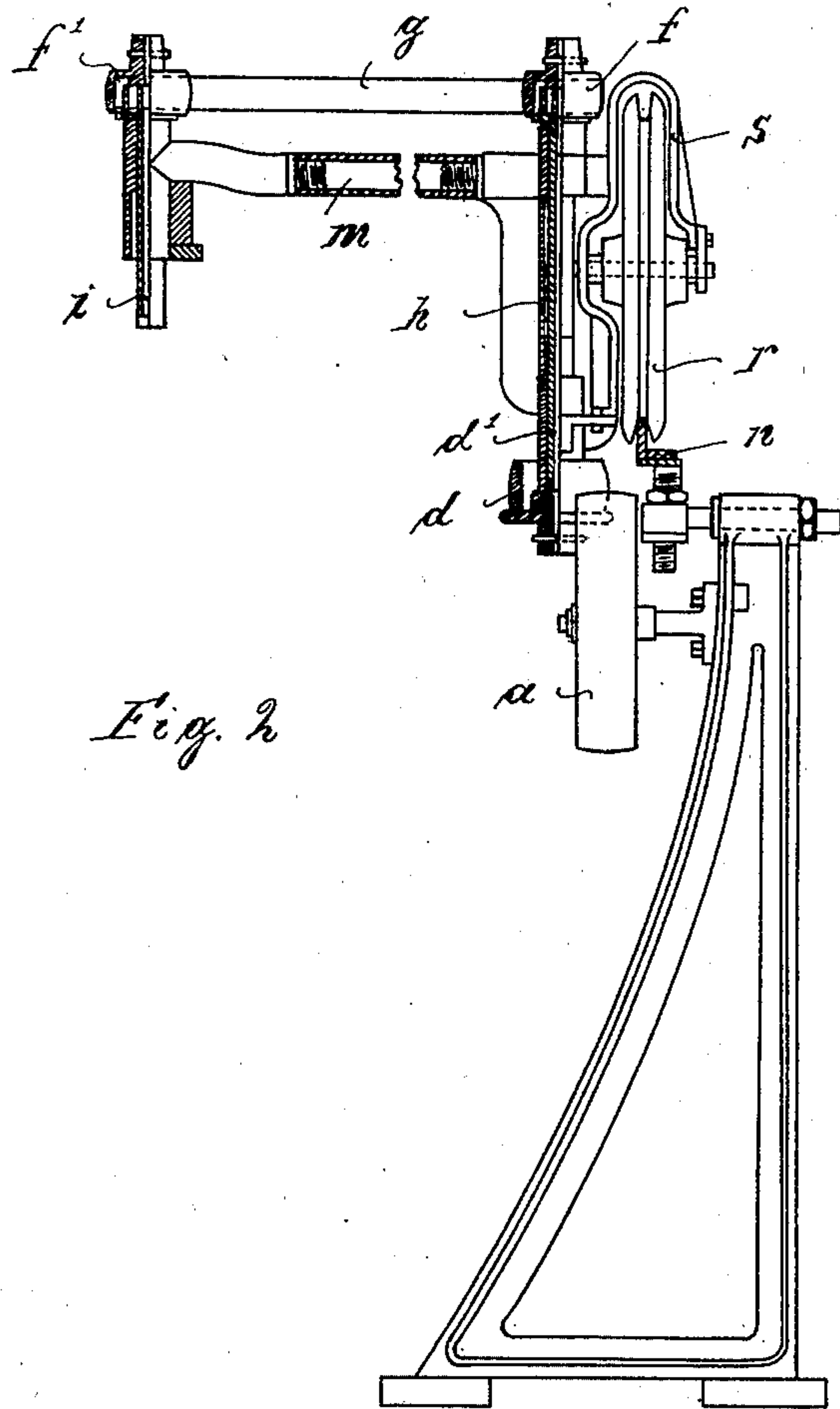
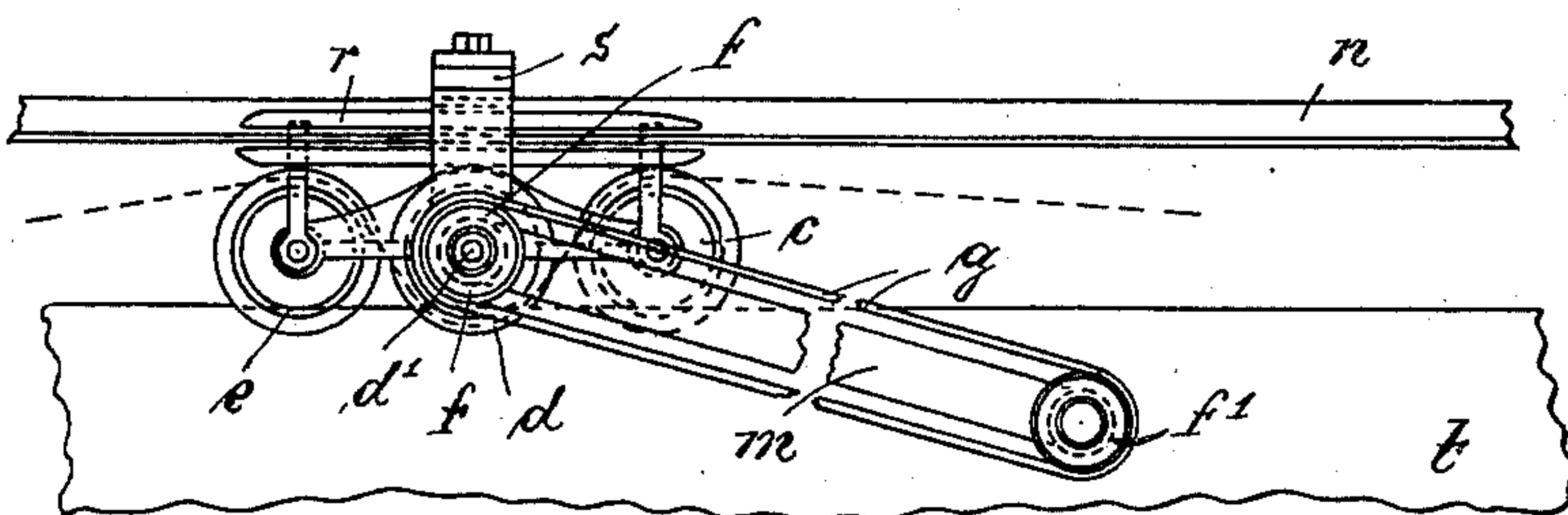


Fig. 4.



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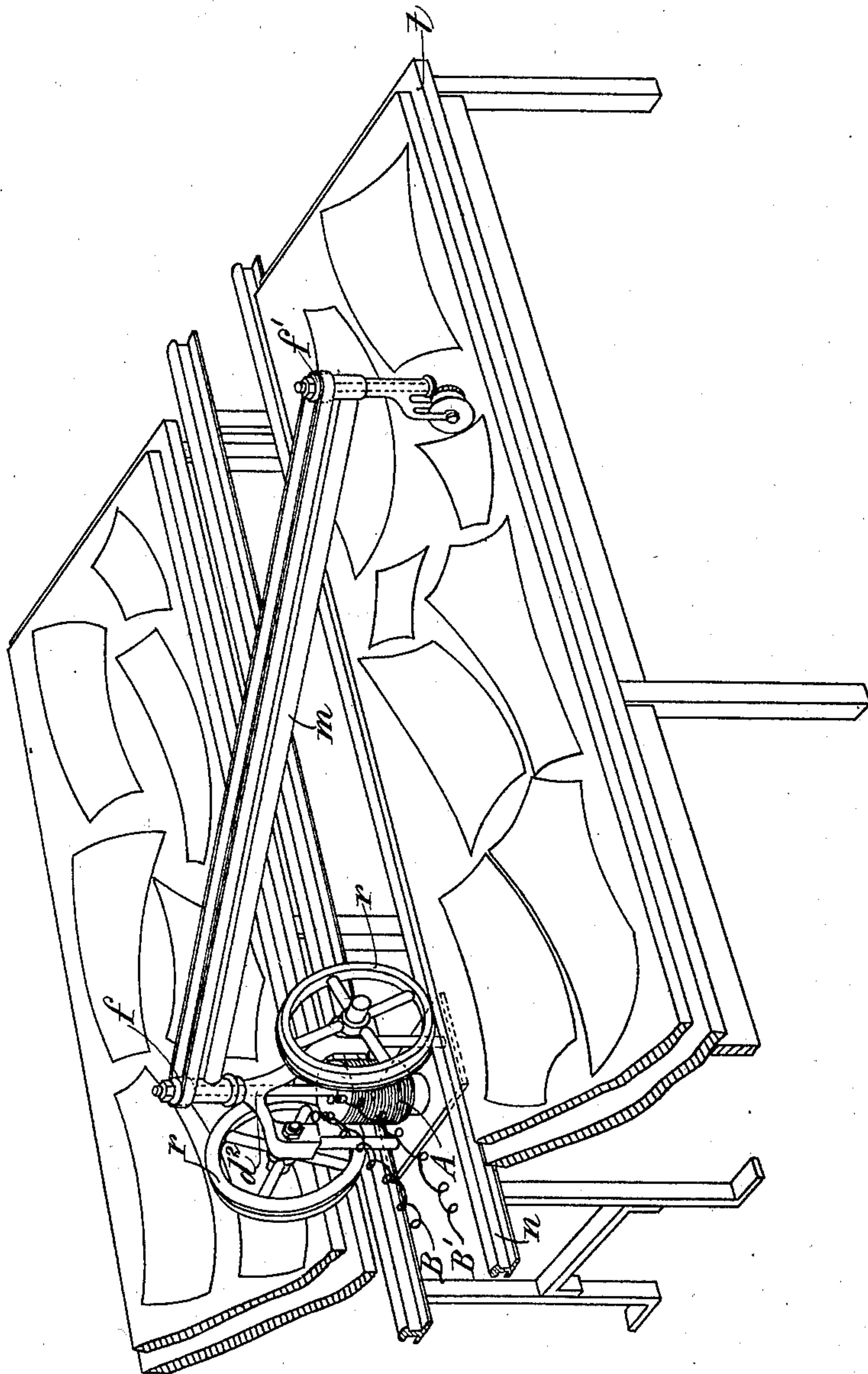
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3 SHEETS—SHEET 3.

Fig. 5



Witnesses:

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# UNITED STATES PATENT OFFICE.

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## CLOTH-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 729,127, dated May 26, 1903.

Application filed April 4, 1900. Serial No. 11,555. (No model.)

*To all whom it may concern:*

Be it known that I, FRITZ BUCHWALD, a subject of the King of Prussia, German Emperor, and a resident of 11 Greifswalderstrasse, Berlin, Kingdom of Prussia, German Empire, have invented certain new and useful Improvements in Cloth-Cutting Machines, of which the following is an exact specification.

My invention relates to improvements in cloth-cutting machines, and has for its purpose to provide a machine the cutting-knife of which can be lifted from the cloth and can be brought to any part of the cutting-table without displacing the cloth. I attain this purpose by arranging a carriage adapted to run upon a rail, to which carriage the cutting mechanism is connected by means of an arm capable of being turned around a vertical shaft.

My invention will be more fully understood with reference to the accompanying drawings, in which—

Figure 1 illustrates a vertical longitudinal section of the top part of my machine. Fig. 2 is a vertical transverse section of the whole machine. Fig. 3 is an enlarged top view, and Fig. 4 illustrates a detail view. Fig. 5 shows a modified form of construction.

In the drawings a rope (indicated by dotted lines) is guided over the pulleys *a* and *b*, which rope passes over three pulleys *c d e*, rotating upon vertical shafts and supported by the carriage *s*, carried by the wheel *r*. The latter is adapted to travel upon the guide-rail *n* and can be suitably moved without diminishing the driving power of the middle pulley *d*, as the rope between *a* and *b* is not shortened. The middle rope-disk rests upon shaft *d'*, having bearing within the casing *h*. The shaft *d'* at its upper extremity is provided with a second pulley *f*, which by a belt *g* is geared with the pulley *f'*. The latter is arranged upon a spindle *i*, supported by the arm *m*.

Upon the bearing-box of the spindle *i* a standard having a foot in known manner is fixed, in which the horizontal axle of the rotating cutting device has its bearings and is geared to the spindle *i* by a worm and worm-

wheel. When now the cutting device, which is not illustrated in the drawings, is to be fixed for a certain point of the table *t*, as shown in Figs. 3 and 4, it is necessary to rotate the arm *m* around the vertical shaft *d'*. The movement of the carriage *s* and of the wheel *r* upon the guide-rail *n* can easily be carried out by the workman, as the power necessary for this work is but small. During the work the mechanism rests on one side upon the wheel and on the other side upon the cutting device. In order to prevent one side of the whole mechanism from being overweighted, a counterweight can be arranged upon the carriage *s*.

For certain cases an electric driving mechanism could be employed, which could be arranged so that its driving-shaft would correspond to the shaft *d'*, whereby the mechanism *n s r m* would remain the same, as may be seen from Fig. 5 of the drawings.

The electric motor forms simultaneously a counterweight upon the carriage. The vertical motor-shaft is driven by the motor, which receives current by long wires *B B'*, so that the rope-pulleys *a b c d e* are superfluous. To the vertical motor-shaft a belt-pulley *f* is fixed, the rotation of which pulley is transmitted by means of a belt to the pulley *f'*, fixed to the vertical shaft for driving the cutter in the same way as in the construction first described. As will be seen from the drawings, in this figure the carriage is provided with two wheels instead of one wheel, the axles of which wheels fall in one line.

I especially beg to mention that the whole carriage can be supported by one single wheel; but evidently several of such wheels lying in the same axle can be employed, this being a constructional modification which does not at all alter the idea of my invention.

Having thus fully described the nature of my invention, what I desire to secure by Letters Patent of the United States is—

A cloth-cutting machine, comprising a carriage *s* carried by a wheel *r* traveling upon a rail *n*, a shaft *d'* having bearing in a casing attached to the carriage and provided with a pulley *f*, a spindle *i* having bearing in a sec-

ond casing and provided with a pulley  $f'$ ,  
an arm for connecting both casings, a belt  
guided over the pulleys  $f f'$ , a cutting device  
carried by the casing of the spindle  $i$  and  
5 driven by means of this spindle, and means  
for rotating the shaft  $d'$ , substantially as de-  
scribed and for the purpose set forth.

In witness whereof I have hereunto set my  
hand in presence of two witnesses.

FRITZ BUCHWALD.

Witnesses:

HENRY HASPER,  
WOLDEMAR HAUPT.