

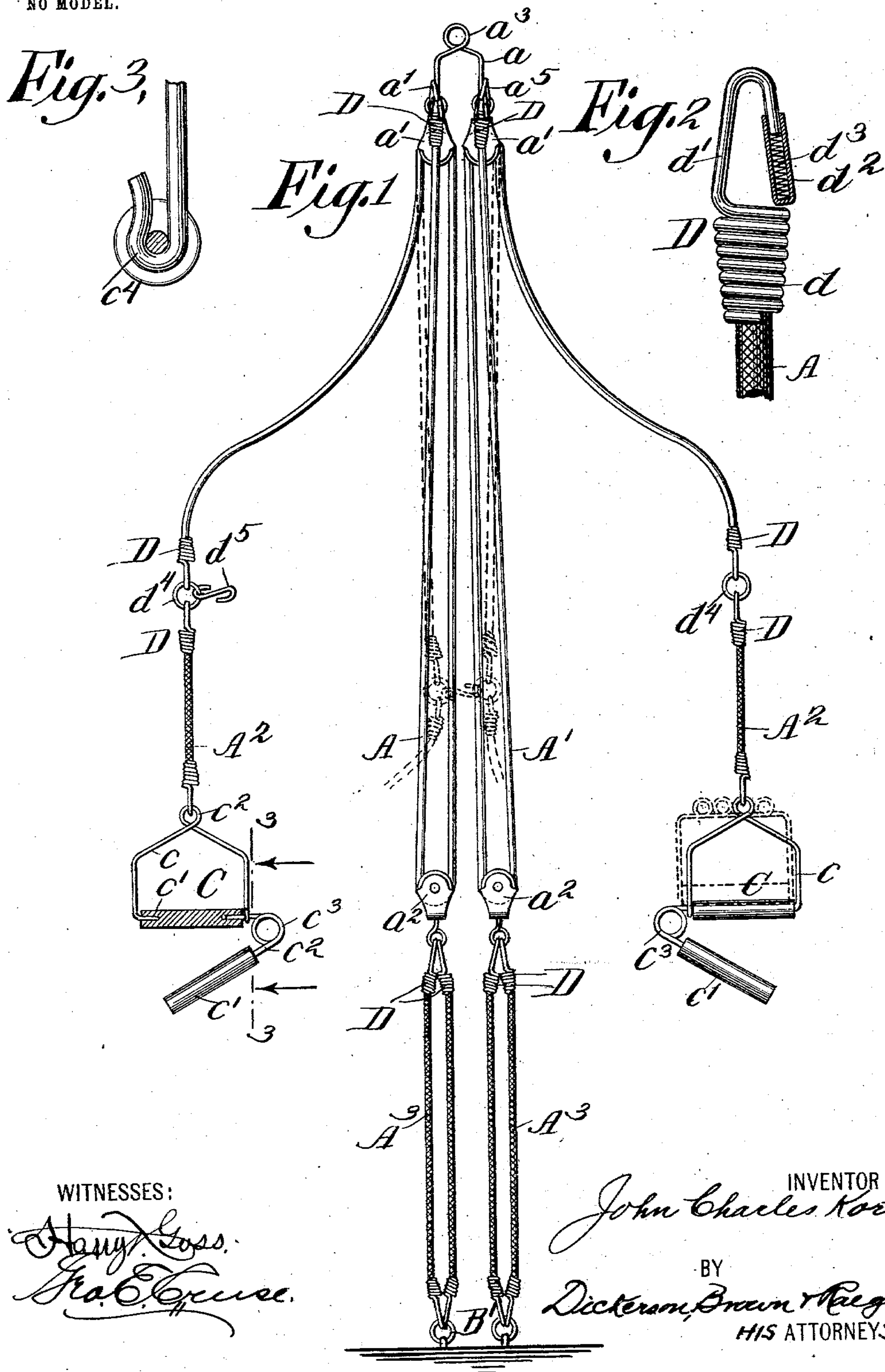
No. 740,443.

PATENTED OCT. 6, 1903.

J. C. KORTH.  
EXERCISING MACHINE.  
APPLICATION FILED AUG. 7, 1901.

NO MODEL.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

NO MODEL.

Fig. 4

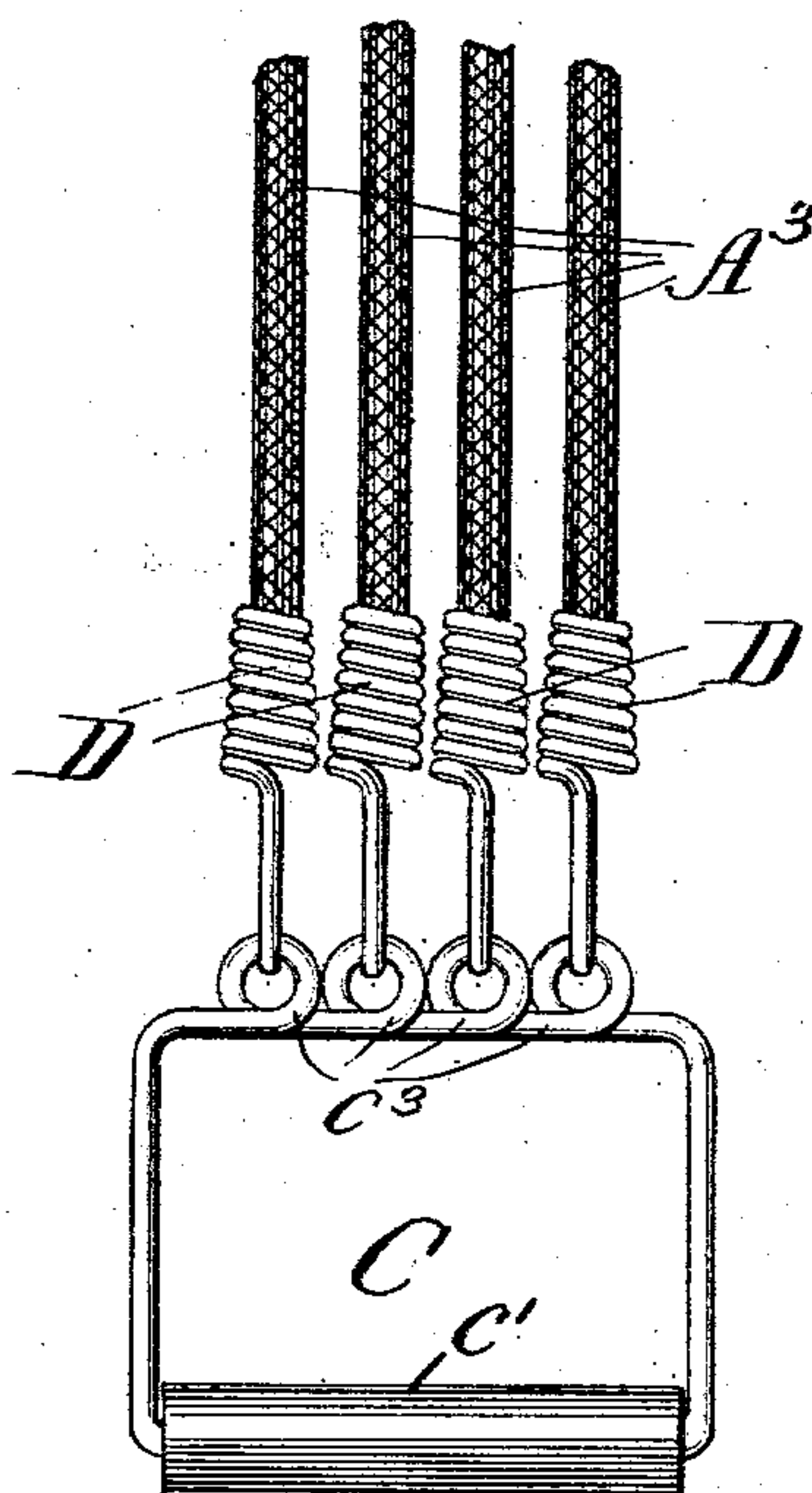
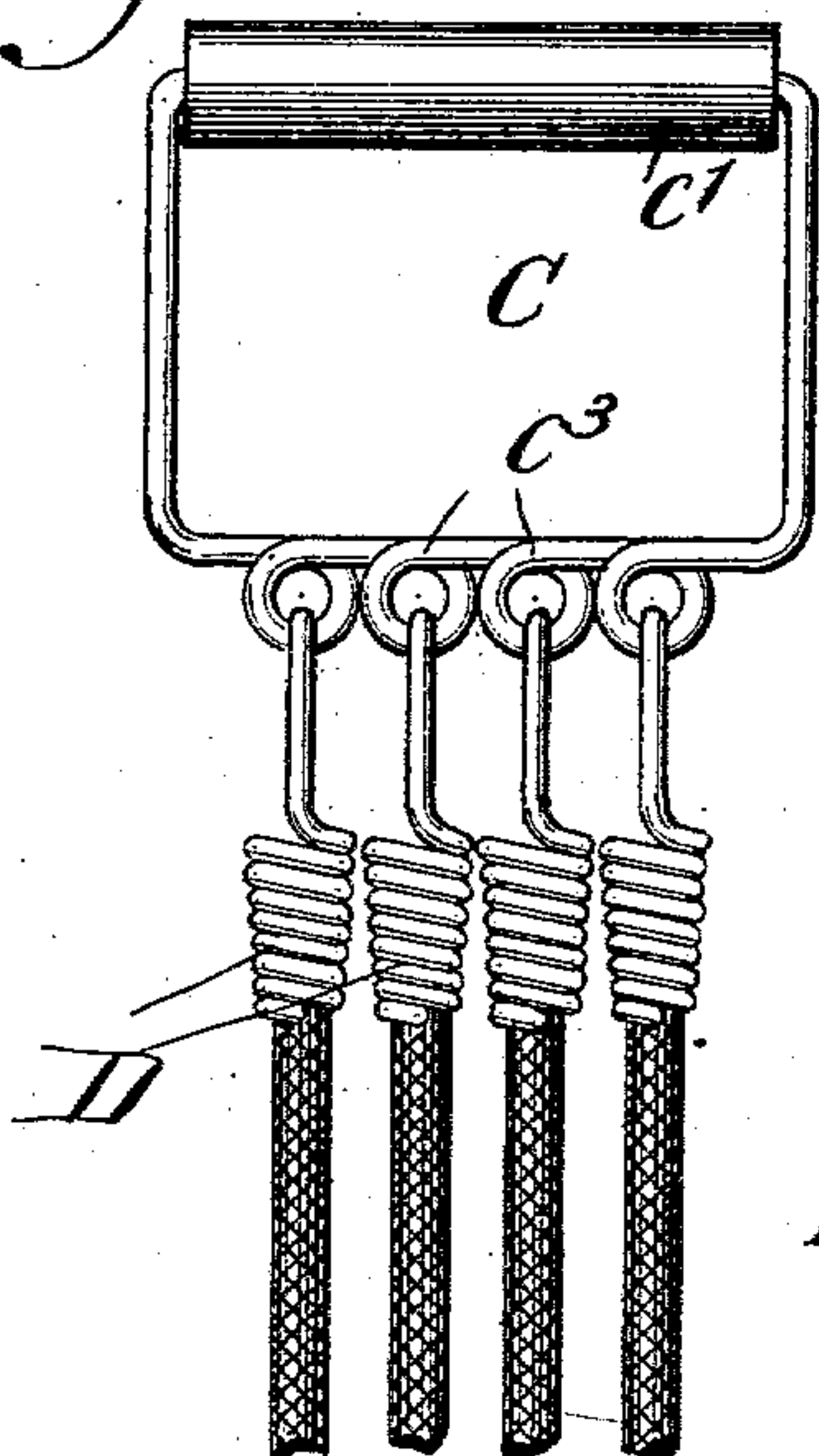


Fig. 5

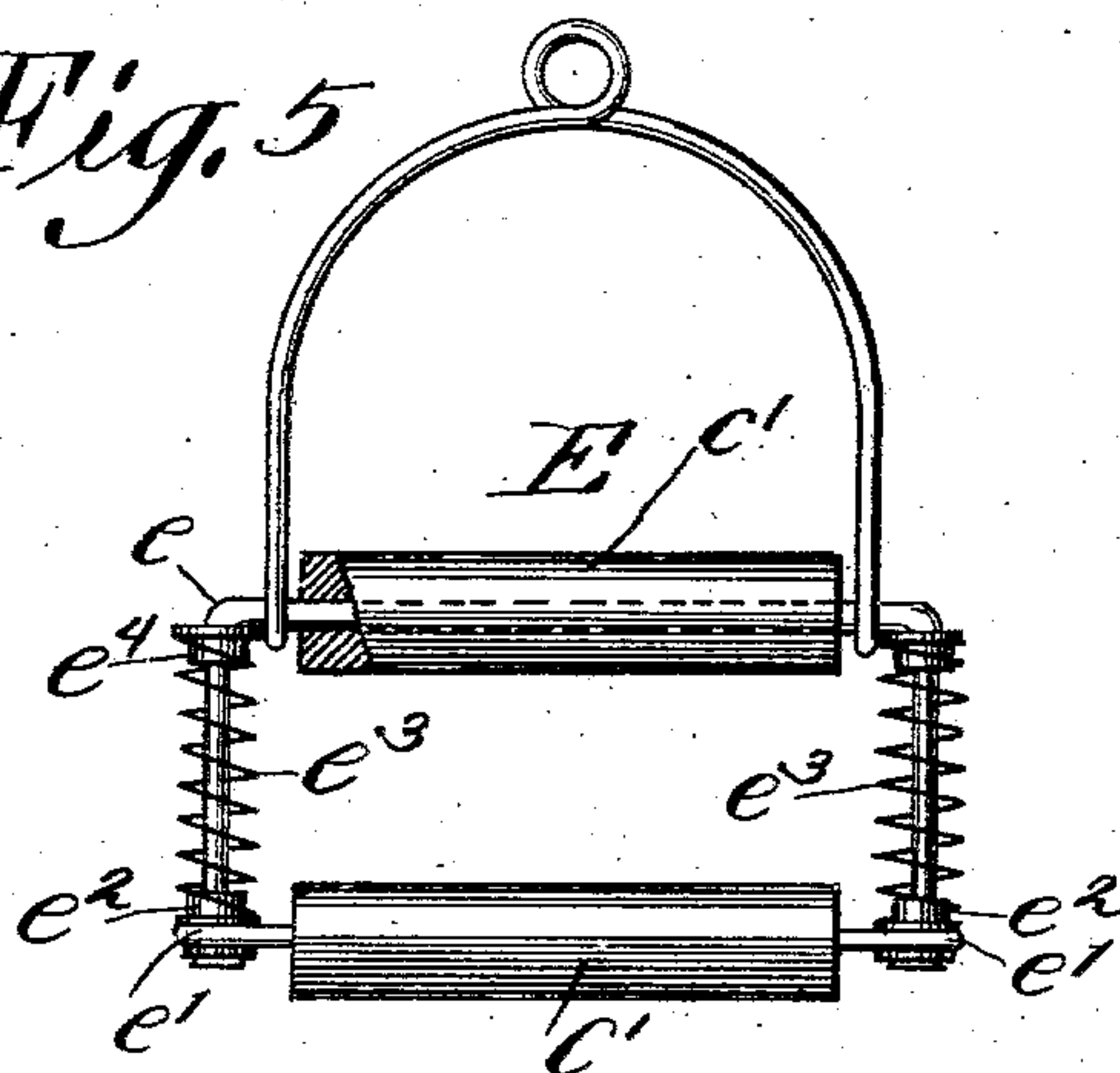
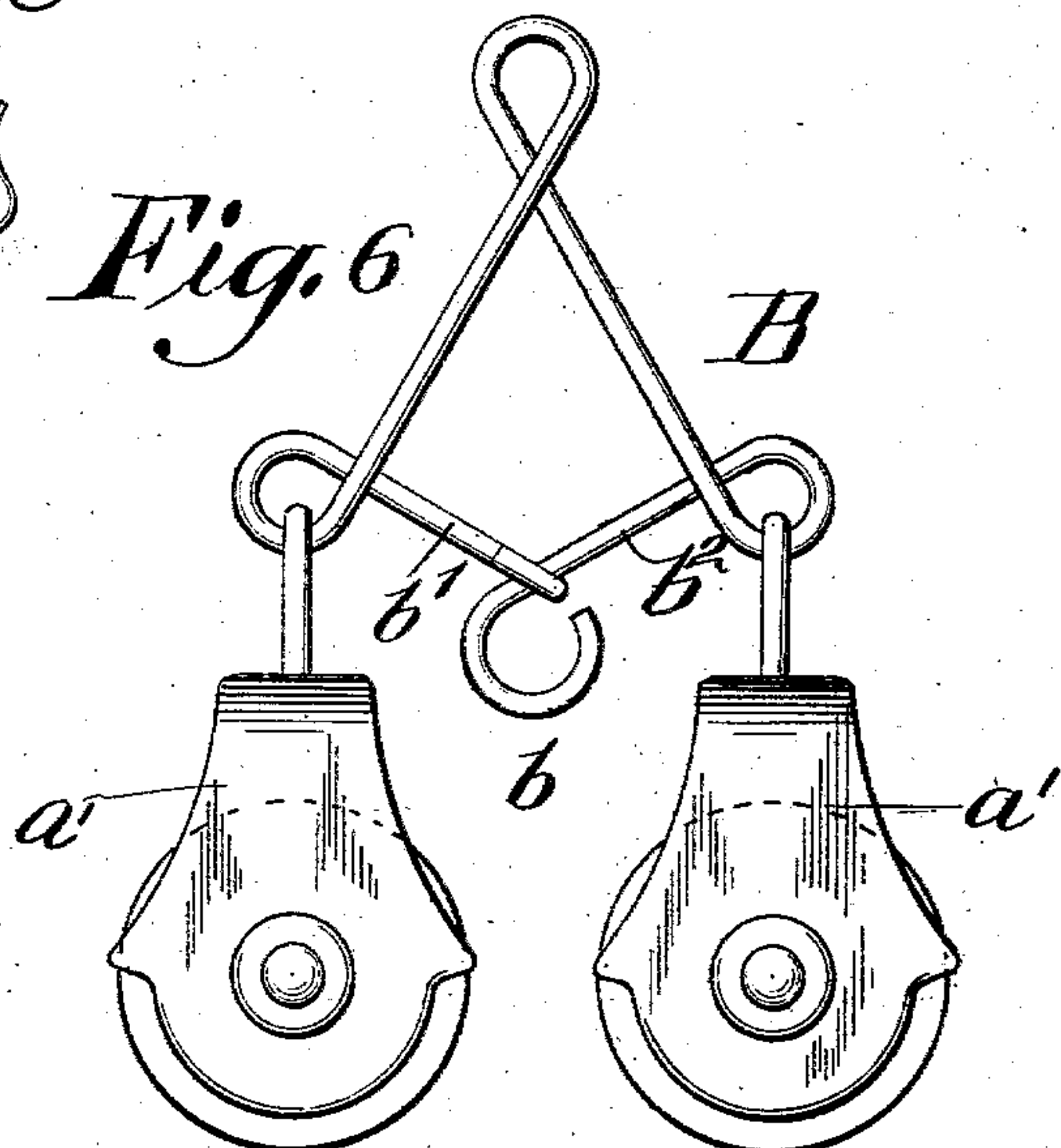


Fig. 7



Fig. 6



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# UNITED STATES PATENT OFFICE.

JOHN CHARLES KORTH, OF HARRISON, NEW YORK.

## EXERCISING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 740,443, dated October 6, 1903.

Application filed August 7, 1901. Serial No. 71,140. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN CHARLES KORTH, a citizen of the United States, residing at Harrison, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Exercising-Machines, of which the following is a specification.

My invention relates to exercisers or exercising-machines; and its objects are to improve upon the construction of such machines and afford greater facility for different kinds of exercises with one machine.

Further objects of my invention will hereinafter appear; and to these ends my invention consists in an exerciser for carrying out the above objects constructed and arranged and having the general mode of operation substantially as hereinafter fully described in this specification and shown in the accompanying drawings.

In the accompanying drawings, Figure 1 is a view in elevation of the rear of an exerciser or an exercising-machine embodying my invention and showing in dotted lines a modified form of handle. Fig. 2 is a detail view, partly in section, of a form of detachable coupling embodied in my invention. Fig. 3 is a detail view, partly in section, which is taken on the line 3 3 of Fig. 1. Fig. 4 is a detail view showing a modified form of exerciser, which may be made from parts of the exerciser or exercising-machine shown in Fig. 1. Fig. 5 is a view showing a modified form of compressible handle. Fig. 6 is a view showing a modified form of support. Fig. 7 is a detail view of parts of Fig. 5.

Similar letters of reference designate corresponding parts in all of the forms.

A A' represent two inelastic cords, though there may be only one such cord. One end of each cord is connected to a support *a* and the other end of each cord is connected to an elastic cord A<sup>2</sup>. Compressible handles C are connected to the other ends of the elastic cords A<sup>2</sup>. The inelastic cords A A' intermediate their ends are passed about pulleys *a'* *a*<sup>2</sup>. The upper pulleys *a'* are suspended from the support *a*, and the lower pulleys are detachably connected to main elastic cords A<sup>3</sup>. The lower ends of the main elastic cords A<sup>3</sup> are connected to a support or supports B'.

The support *a* is here shown as consisting of wire, which is bent to have a suspending eye *a*<sup>3</sup> and two other circular eyes *a*<sup>4</sup> *a*<sup>5</sup>, the former being for the pulleys and the latter two eyes for the ends of the inelastic cords. Instead of this form of support the form of support B (shown in Fig. 6) may be employed. In this form the eyes *a*<sup>4</sup> *a*<sup>5</sup> are omitted and the ends of the wire joined together and one end provided with an eye *b*, to which the ends of the inelastic cords may be connected. This form of support also permits of a single inelastic cord being used instead of two inelastic cords A A'. If a single inelastic cord is used, it is secured at its middle either to the eye *b* or to the two end portions *b'* *b*<sup>2</sup>. The end portions of the single cord are then passed around the pulleys *a'* *a*<sup>2</sup>, as shown in Fig. 1.

In making the connection between the cords A A' A<sup>2</sup> A<sup>3</sup> and handles or grips C detachable couplings D in the form of snap-hooks are used. A preferable form of coupling is illustrated in Fig. 2. As here shown, this coupling consists of a wire one end portion of which is wound in a spiral *d* to secure it to the end of an elastic or inelastic cord. The other end of the wire is bent to form a hook *d'*, and working on the end of the hook is a cylindrical cap *d*<sup>2</sup>, which is pressed against the spiral portion *d* by a spring *d*<sup>3</sup>. Thus a closed eye is provided which will prevent any of the parts being accidentally disconnected from one another. In making connections between the several parts of the exerciser or exercising-machine a ring *d*<sup>4</sup> may be employed, or eyes may be provided with which the couplings D may be connected. I preferably provide a ring *d*<sup>4</sup> between the couplings D of the inelastic cords A A' and the elastic cords A<sup>2</sup>. To one of the rings *d*<sup>4</sup> I secure a detachable coupling *d*<sup>5</sup>, which, as here shown, consists of a hook. This coupling *d*<sup>5</sup> is for the purpose of connecting the two rings *d*<sup>4</sup>. This serves as a connection between the ends of the two elastic cords A<sup>2</sup> farthest away from the handles, so as to provide for exercises which will involve the stretching of these elastic cords at an angle to or in line with each other. The detachable couplings also permit of various changes being made in the



machine—as, for example, the end of the in-  
elastic cords A A' being disconnected from  
the support *a* and connected directly to the  
elastic cords A<sup>3</sup>, thus doing away with the  
5 lower pulleys *a*<sup>2</sup> *a*<sup>2</sup>, thereby increasing the  
tension. Two of the elastic cords A<sup>3</sup> may also  
be disconnected to lighten the tension.

The handle C comprises a stirrup *c* and a  
grip *c'*, to which the ends of the stirrup are  
10 detachably connected. The stirrup may be  
provided with a single eye *c*<sup>2</sup> or with a plu-  
rality of eyes *c*<sup>3</sup>, as shown in dotted lines,  
Fig. 1, and full lines, Fig. 4. In case of pro-  
viding the handles C with a plurality of eyes  
15 the elastic cords A<sup>2</sup> A<sup>3</sup> may be disconnected  
from the other parts of the exerciser and con-  
nected to the two handles, as shown in Fig.  
4. I preferably employ in connection with  
each handle C a compressible part C' in the  
20 form of a hand-piece or grip. The two hand-  
pieces or grips *c'* C' are capable of rotating  
as a whole relatively to the stirrup. This  
provides for a wrist-exerciser or grip-devel-  
oper which can be used in connection with  
25 the exerciser when the arm or hand is in any  
position. In the use of such a handle in con-  
nection with the machine of Fig. 1 the grip  
C' may be left free and the handle used in  
the ordinary manner. The two grips *c'* C'  
30 may be connected with each other by a wire  
*c*<sup>5</sup>, the ends of which are inserted in the two  
grips *c'* C' and which is provided intermedi-  
ate its ends with a spring-hinge in the form  
of a coil *c*<sup>3</sup>, having a tendency to separate  
35 the two grips *c'* C' away from each other.  
As will be seen from Figs. 1 and 3, the ends  
of the stirrup *c* may be disconnected from  
the grip *c'*. One end of the grip is recessed  
to receive an end of the stirrup, and the other  
40 end of the stirrup may be provided with a  
yielding hook *c*<sup>4</sup> to receive and support an  
end of the wire *c*<sup>3</sup>, which passes through said  
hook and is inserted to a greater or less ex-  
tent into the other end of the grip *c'*, as shown  
45 in Fig. 3. This permits of the two grips *c'*  
C' being disconnected from the stirrup and  
used independently, or, if desired, the stirrup  
*c* may be disconnected from the elastic cord  
A<sup>2</sup> and the two grips *c'* C' used independently.  
50 Since the wire *c*<sup>2</sup> may be inserted into the  
grip *c'* to a greater or less extent, greater or

less leverage may be obtained in compressing  
the grips C' *c'* together.

Instead of the form of handle shown in Fig.  
1 being used the handle E (shown in Fig. 5) 55  
may be substituted. In this form of handle  
a U-bail part *e*, to which the ends of the stir-  
rup are connected, (see Fig. 7,) is carried by  
the grip *c'*. The grip C' is provided with  
eyes *e'* at its ends, which eyes carry sleeves 60  
*e*<sup>2</sup>, through which the ends of the bail part *e*  
extend. Springs *e*<sup>3</sup> are provided between the  
collars *e*<sup>2</sup> and the collars *e*<sup>4</sup>, which are fixed  
on the part *e*. This form of handle may be  
used independently of the exercising-ma- 65  
chine.

It is obvious that various modifications and  
slight changes may be made without depart-  
ing from the spirit of my invention.

What I claim as my invention is—

1. An elastic hand-grip for an exerciser 70  
comprising a stirrup, a rotatable grip form-  
ing part thereof, a second grip and a bent  
spring connecting one end of the grip with  
one end of the handle, leaving the other end 75  
of the grip free, whereby said grip may be  
rotated relatively to the handle about an axis  
transverse to its length.

2. An elastic hand-grip for an exerciser  
comprising a stirrup having a rotatable grip 80  
forming part thereof, a second grip and a  
bent spring connecting one of the ends of  
both of the grips, whereby both grips may  
be used together as an elastic hand-grip, or  
the rotatable stirrup-grip be used independ- 85  
ently.

3. An elastic hand-grip for an exerciser,  
comprising a rotatable grip, forming part  
thereof, a second grip and a bent spring con-  
necting one end of the grip with one end of 90  
the handle, leaving the other end of the grip  
free, whereby said grip may be rotated rela-  
tively to the handle about an axis transverse  
to its length.

In testimony whereof I have signed my 95  
name to this specification in the presence of  
two subscribing witnesses.

JOHN CHARLES KORTH.

Witnesses:

JOSEPH P. McELDUFF,  
GEO. E. CRUSE.