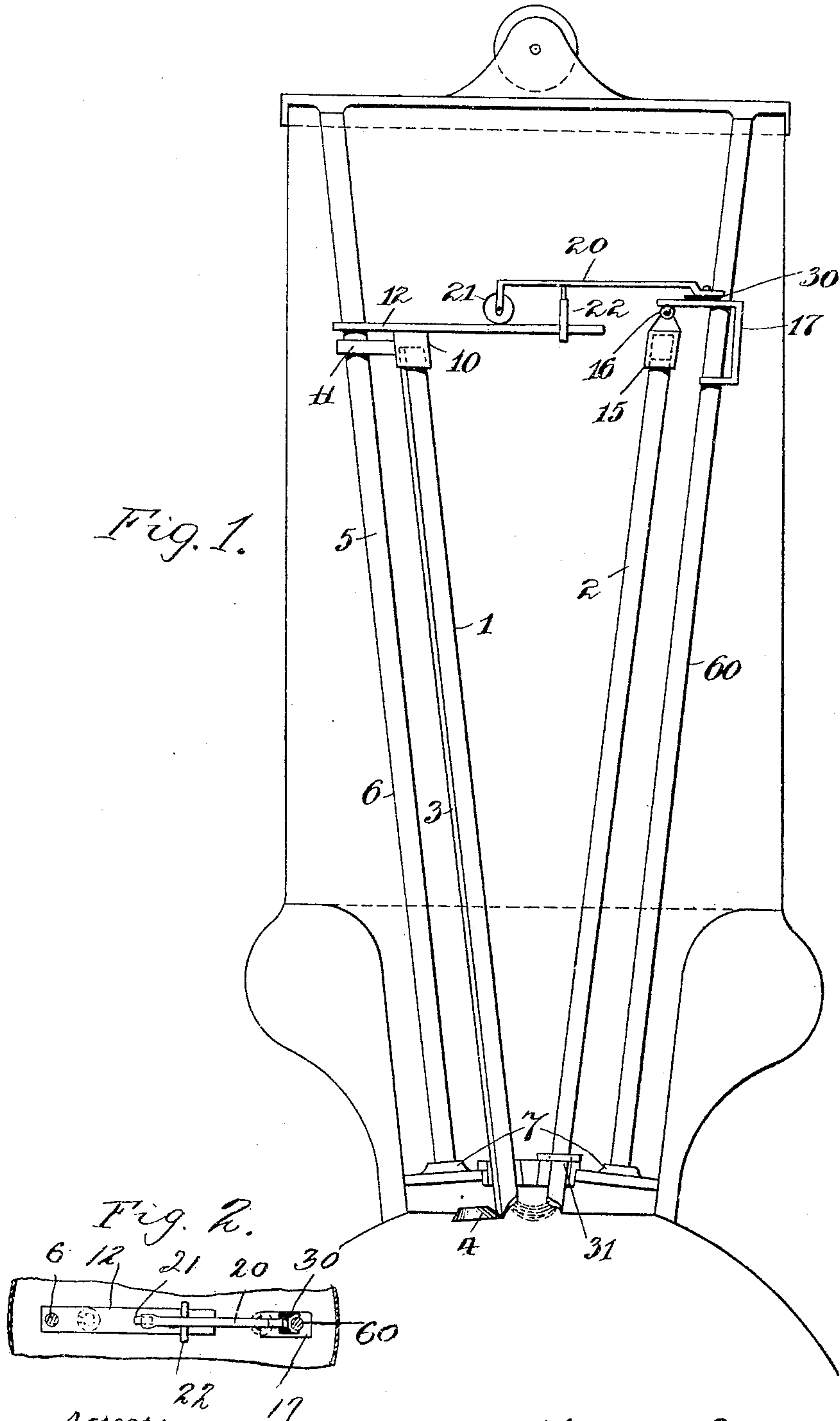


H. BECK.
ELECTRIC ARC LAMP.
APPLICATION FILED NOV. 15, 1906.

962,732.

Patented June 28, 1910.



Attest:
Stephen J. Cor
Alan MacDonnell.

Henrich Beck, Inventor:
by William R. Baird
his Atty.

UNITED STATES PATENT OFFICE.

HEINRICH BECK, OF FRANKFORT-ON-THE-MAIN, GERMANY, ASSIGNOR TO BECK
FLAMING LAMP COMPANY, OF CANTON, NEW YORK, A CORPORATION OF NEW
YORK.

ELECTRIC-ARC LAMP.

962,732.

Specification of Letters Patent. Patented June 28, 1910.

Application filed November 15, 1906. Serial No. 343,528.

To all whom it may concern:

Be it known that I, HEINRICH BECK, a
subject of the German Emperor, residing at
Frankfort-on-the-Main, Germany, have in-
vented certain new and useful Improvements
in Electric-Arc Lamps, of which the follow-
ing is a specification.

My invention relates to electric arc lamps
and its novelty consists in the construction
and adaptation of the parts as will be more
fully hereinafter pointed out.

On July 25, 1905, there was granted to me
Letters Patent of the United States No.
795,681, for an electric arc light in which
there is shown and described a lamp com-
prising a pair of electrodes arranged points
downward, a support on one of which said
electrodes rests and means for retarding the
consumption of the part of the supported
electrode turned away from the light.

My present invention may be considered
as an improvement upon the invention de-
scribed in that patent and it has for its ob-
ject providing the electrodes with means
whereby a substantially uniform distance
may be maintained between the arcing ends
of the electrodes.

In the drawings, Figure 1 is a plan view
somewhat in diagrammatic form illustrating
an arc lamp embodying my invention, and
Fig. 2 is a detail plan view.

In the drawings, 1 represents one electrode
and 2 the other. The electrode 1 is provided
with a longitudinal rib indicated at 3 and is
adapted to rest upon a support 4 suitably
mounted on the frame of the lamp. A
framework 5 consisting of depending rods
6, 60, and a transverse yoke 7 is arranged in
convenient proximity to the electrodes which,
near their lower extremities, pass through
apertures thereon and project into the globe
of the lamp. The parts above described are
not essentially different from the similar
parts described in the patent above re-
ferred to.

To the upper end of the electrode 1, is
secured a carrier herein shown as comprising
a socket 10 provided with a lateral bracket
11 adapted to embrace the rod 6 so as to slide
thereon. On top of this socket there is
secured a bar 12 projecting toward the other
electrode 2. To the upper end of the elec-
trode 2 is secured a socket or holder 15 ter-
minating at its upper extremity in a univer-
sal joint, or hinge, 16 of any approved con-

struction by means of which it is connected
to a lateral bracket 17 having a member 18
adapted to embrace the rod 60 and to slide
thereon. This bracket carries a bar 20 pro-
vided at its extremity with a wheel, or roller,
21 adapted to roll upon the bar 12 and it also
carries a depending fork 22 adapted to pre-
vent the lateral displacement of the bars
with respect to each other. A layer of insu-
lating material 30, as mica, is interposed at
a convenient point between the electrodes.

31 is an air seal loosely embracing the
electrode 2.

In the operation of the device the elec-
trode 1 rests upon the support 4 and as this
electrode burns away it is fed downward by
gravity. As it moves downward the wheel
21 and bar, with the bracket 17, and socket
piece 15, follows, acting under the influence
of gravity. The fork 22 keeps the bars 12
and 20 in alinement and the rods 6 and 60
in connection with the apertures in the yoke
7 keep the electrodes properly spaced apart,
and as they move downward together their
lower extremities are naturally kept at a
uniform distance apart.

What I claim is—

1. In an electric arc lamp, a pair of elec-
trodes and means for preserving a uniform
distance between the arcing ends thereof in
their longitudinal movement, comprising
members connected to the electrodes and
movable therewith and projecting therefrom
toward each other, said members having rel-
ative longitudinal movement, a roller car-
ried by one of the members and having a
rolling contact with the other, means car-
ried by one of said members and engaging
the other, for preventing lateral displace-
ment thereof.

2. In an electric arc lamp, a pair of elec-
trodes and means for preserving a uniform
distance between the arcing ends thereof in
their longitudinal movement, comprising
members connected to the electrodes and
movable therewith and projecting therefrom
toward each other, said members having rel-
ative longitudinal movement, a roller car-
ried by one of the members and having a
rolling contact with the other of the mem-
bers, and a yoke projecting from one mem-
ber and engaging the edges of the other
member and preventing lateral displacement
thereof.

3. In an electric arc lamp, a frame, a lon-

gitudinally movable electrode, a support
therefor, a guiding means comprising a car-
rier having a guiding element which is slid-
ably engaged with the frame, a second elec-
5 trode, and means whereby the second elec-
trode is carried by the first-mentioned elec-
trode and is movable laterally relatively
thereto, comprising an arm movable with
the first electrode and projecting thence to-
10 ward the second electrode, a holder secured
to the second electrode, a guiding connec-
tion between the holder and the frame, said
holder pivoted to said guiding connection,
an arm movable with the second electrode,

and extending over the first-mentioned arm, 15
a rolling bearing between said arms by
which the second arm is supported to roll
on the first-mentioned arm, and a yoke pro-
jecting from one arm and engaging the other
arm and preventing lateral displacement 20
thereof.

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

HEINRICH BECK.

Witnesses:

JEAN GRUND,
CARL GRUND.