

(No Model.)

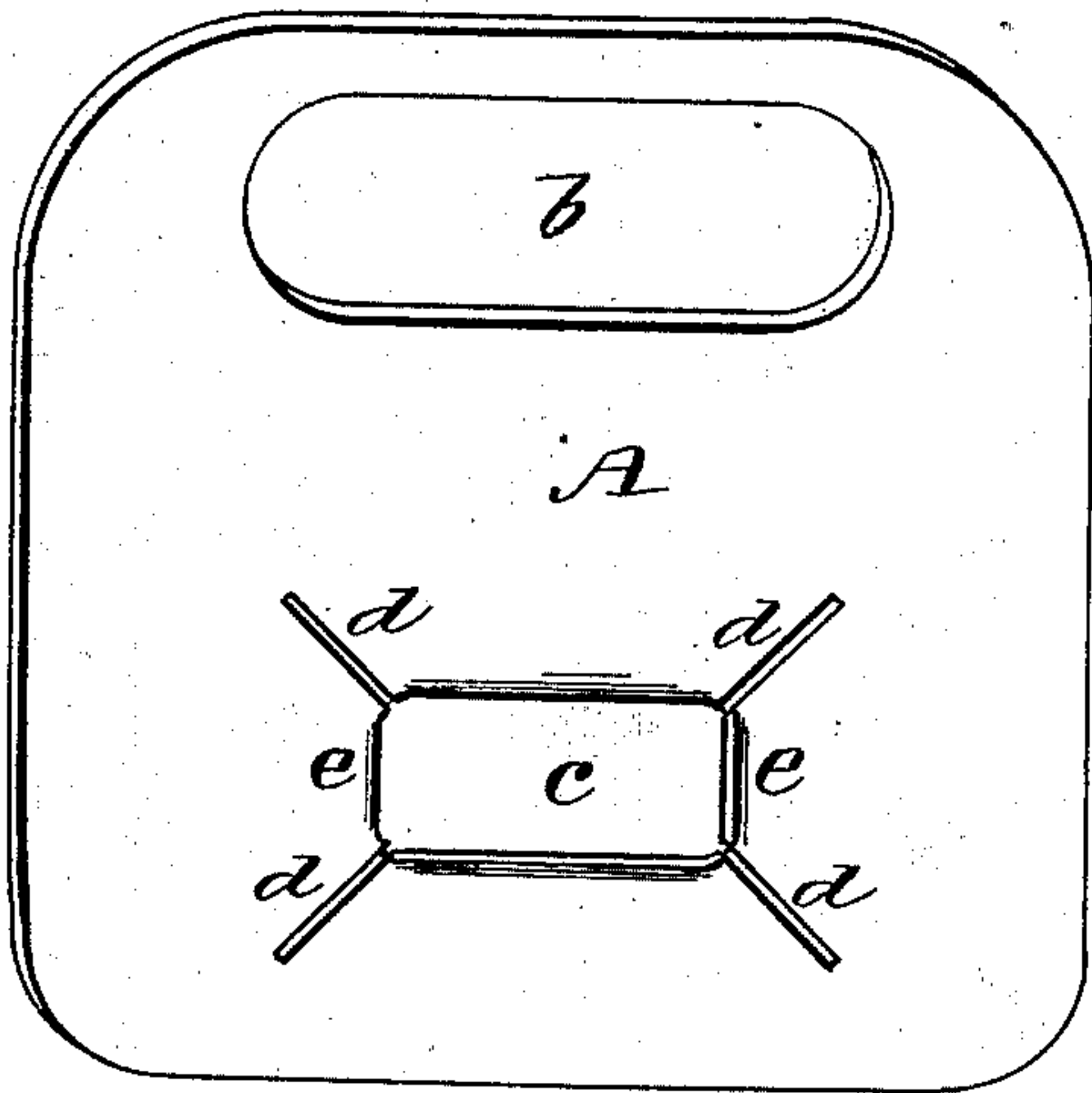
F. SWEETLAND.

CAR COUPLING LINK.

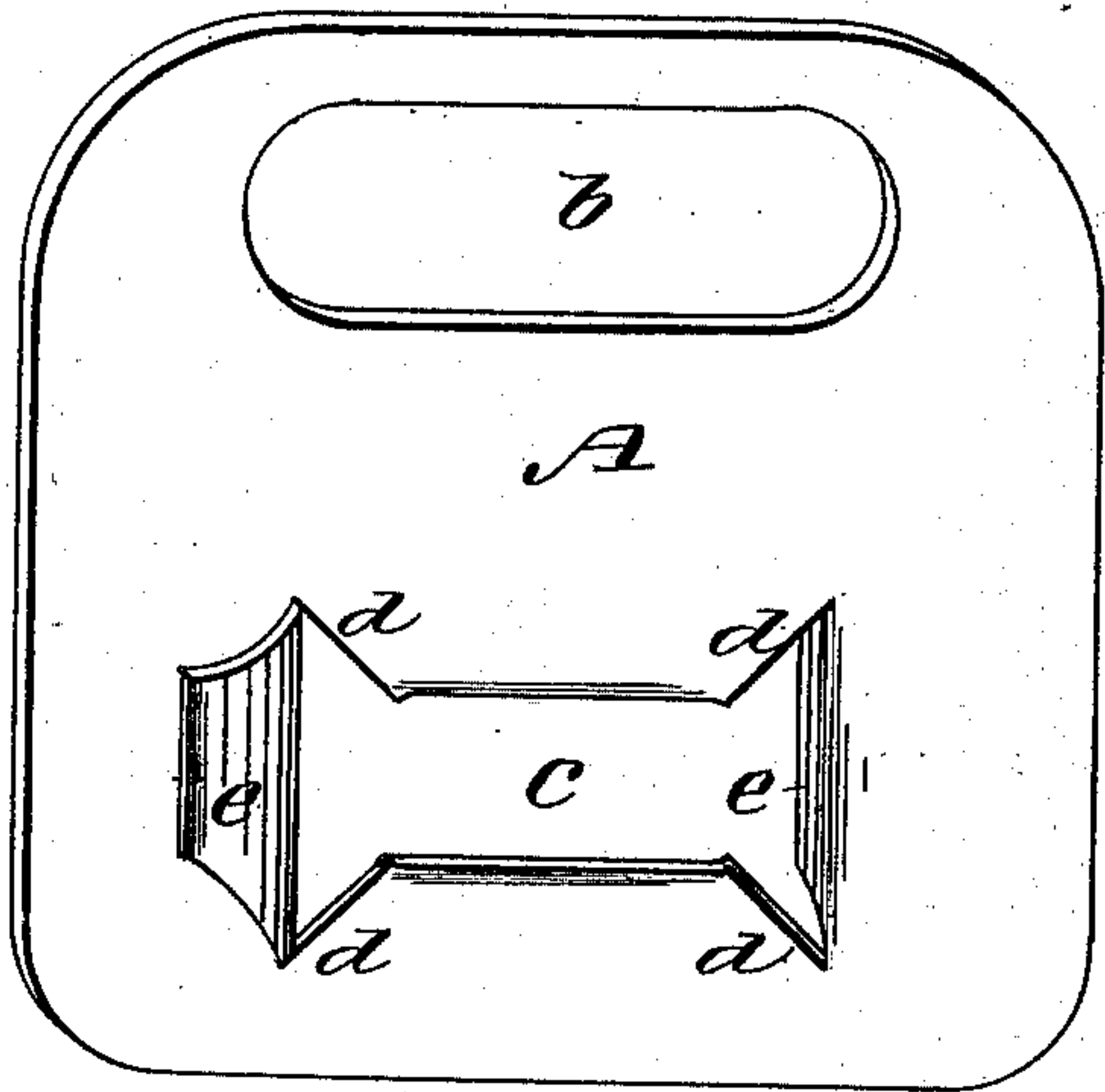
No. 278,626.

Patented May 29, 1883.

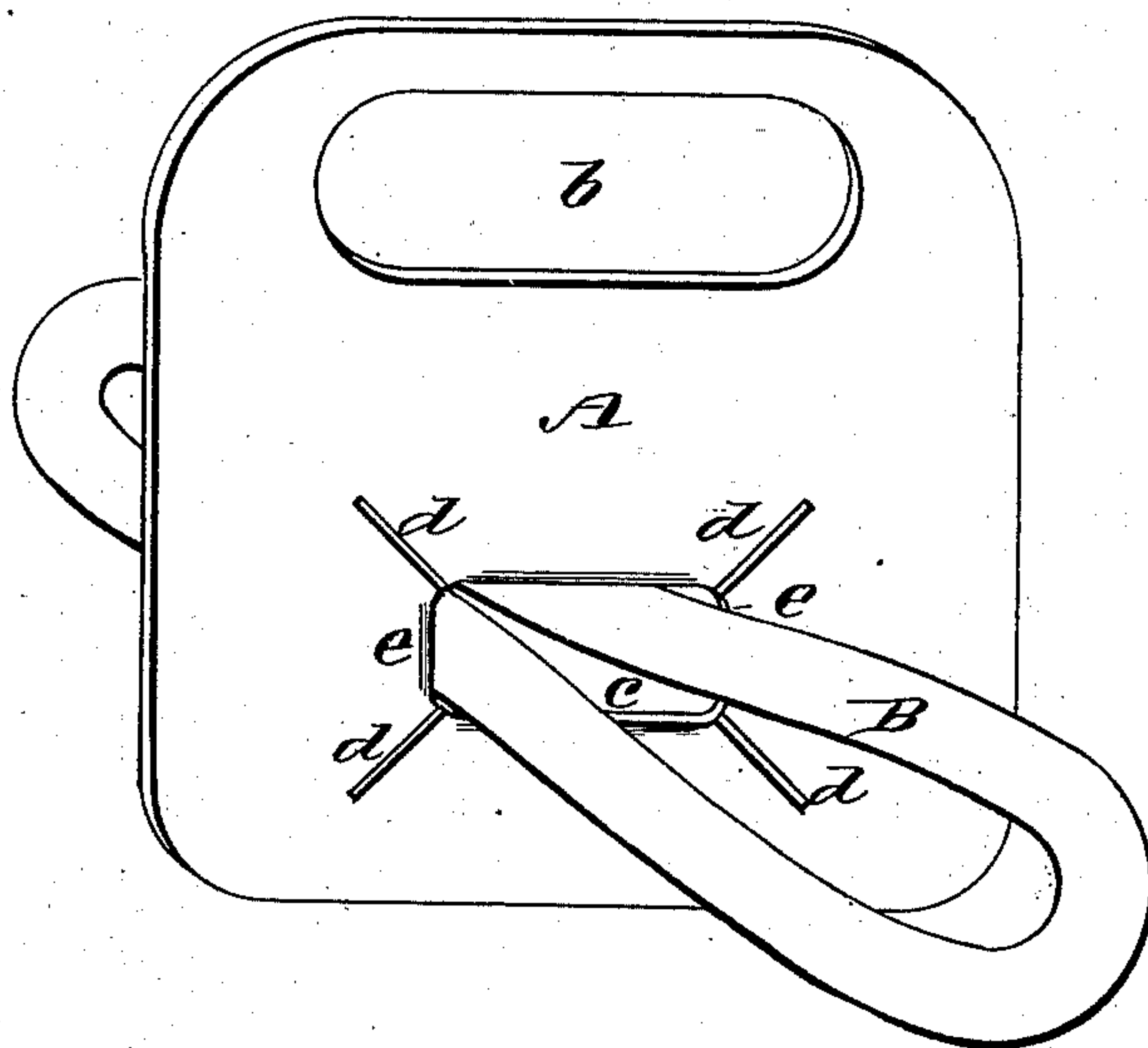
*Fig. 1*



*Fig. 2*



*Fig. 3*



WITNESSES:

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# UNITED STATES PATENT OFFICE.

FRANK SWEETLAND, OF EDWARDSBURG, MICHIGAN.

## CAR-COUPLING LINK.

SPECIFICATION forming part of Letters Patent No. 278,626, dated May 29, 1883.

Application filed March 13, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK SWEETLAND, of  
Edwardsburg, in the county of Cass and State  
of Michigan, have invented certain new and  
useful Improvements in Link-Guides for Car-  
Couplings, of which the following is a full,  
clear, and exact description.

This invention relates to link-guides for car-  
couplings in which a handle-plate is combined  
with the coupling-link, said plate freely hold-  
ing the link at or about its center within it,  
but not permitting of the link and plate de-  
taching themselves one from the other, sub-  
stantially as described in Letters Patent No.  
262,854, granted to me August 15, 1882. The  
object of my said patented invention was to  
provide a new and improved device by which  
car-coupling links could be held and guided  
into draw-heads while coupling cars without  
endangering the hands of the operator, the  
handle-plate which was combined with the link  
providing for the link being carried and raised  
and lowered and guided into the draw-heads  
by holding and manipulating the plate from  
above the draw-heads, so that when the draw-  
heads come together all danger of crushing  
the operator's hand or arm or otherwise maim-  
ing him would be avoided. In such device the  
handle-plate was made with an opening through  
it, capable of being increased in size to admit of  
the passage of the link through or within, and  
so as to project from opposite sides of the  
plate, and afterward of being contracted to  
cause the plate to freely lock or hold the link  
at or about its middle where it was of reduced  
dimensions or width relatively to its ends for  
the purpose. To thus provide for entering and  
holding the link within the plate, I showed  
and described in my patent hereinbefore re-  
ferred to a removable key for closing part of  
the slot through which the link was passed in  
the plate to retain the link in place at its con-  
tracted middle portion, which key it was pro-  
posed to construct of two blocks meeting face  
to face and fitted to the plate, so that when  
bolted together they formed a lock for the in-  
serted link.

The object of the present invention is to pro-  
vide in a special or novel and simple manner  
for the insertion and retention of the link with-  
in the handle-plate, and whereby any key or  
separate and independent device operating to

partly close the link-hole through the plate,  
and which not only involves labor, trouble, and  
expense, but is liable to work or get loose, is  
dispensed with; and the invention consists in  
a novel method of fitting the link to the han-  
dle-plate, and novel construction of said plate  
by cutting or bending it at one or both ends  
of the aperture in it through which the link  
passes, substantially as hereinafter described.

Reference is to be had to the accompanying  
drawings, forming a part of this specification,  
in which similar letters of reference indicate  
corresponding parts in all the figures.

Figure 1 represents a perspective view of a  
handle-plate for a car-coupling link embodying  
my invention, and before the cut portion or  
portions of said plates are bent to provide for  
increasing the size of the opening therethrough  
for the entrance of the link within it. Fig. 2  
is a similar view of said plate after the cut por-  
tions of the plate have been bent for insertion  
of the link, and Fig. 3 a like view of the plate  
with the link inserted and the cut portions of  
the plate bent back to their normal position  
to retain the link to its place in the plate.

A in the drawings indicates the metal han-  
dle-plate, provided with an upper hand-hole,  
b, and with a lower link aperture or slot, c. At  
either or both ends of this slit c incisions d d  
are made in the plate, commencing at the cor-  
ners or angular terminations of the slot and  
extending outward, preferably in a diverging  
manner, toward the outer margins of the plate,  
thereby forming a lip or lips, e, at the end  
or ends of the slot of sufficient size that when  
bent back or out of the way, as shown in Fig.  
2, the slot c will have its length increased to  
an extent that will admit of the passage of the  
coupling-link B through it. Said link, which  
has its sides pressed together at its middle, so  
as to give it decreased width at such portion,  
is then introduced for half its length, or there-  
about, within the slot c, specially lengthened  
for the passage of either end or wider portion  
of the link through it, as described, after which  
the lip or lips e is or are bent back to their  
normal position to lock or hold the link to its  
place in the plate without restricting its nec-  
essary freedom of play vertically or horizon-  
tally. In this way the handle-plate makes its  
own lock with the link. A single lip or flap,  
e, at one end of the slot c might suffice; but



it is preferable to have one at each end of the slot, as the incisions *d* in the plate need not then extend to the same extent to weaken the plate, as when only a single flap is used, and the two flaps, being smaller, will be stronger than a single one, and may be bent outward in reverse directions for insertion of the link, whereby not only the entry of the link is facilitated, but when the flaps are returned to their normal position they better retain the same. The divergency of the incisions *d* *d* avoids too great a weakening of the plate, and gives stronger flaps or lips. If desired, the locking-flaps *e*, after being closed upon the link B, as described, may be welded to the rest of the plate A to hold them in position.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The method of inserting a car-coupling link within a handle-plate which carries it, consisting in making incisions in the plate at the end or ends of the link-hole in the plate,

bending said cut portion or portions outward to permit of the passage of a link narrowed at its center partially through the plate, and subsequently turning down or back to its or their normal position the cut portion or portions of the plate to retain the link in place, substantially as specified.

2. In a link-guide for coupling cars, the handle-plate A, provided with the link-aperture *c*, having lip or lips *e* at the end or ends of the same, substantially as herein shown and described.

3. In a link-guide for coupling cars, the combination, with the coupling-link B, of reduced width at or about its center, of the handle-plate A, having a link-hole, *c*, and one or more locking-flaps, *e*, forming integral portions of said plate, essentially as specified.

FRANK SWEETLAND.

Witnesses:

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MOSES H. LEE.