To all whom it may concern:

Be it known that we, KONSTANTINE THULANDER and VICTOR B. NELSON, a citizen of the
5 United States, residing at Rockford, in the county of Winnebago and State of Illinois,
have invented certain new and useful Improvements in Desk-Fall Supports, of which
the following is a specification.

10 Our invention relates to supports for desk
falls, and may be used in all cases where it
is desired to apply supporting means to the
outer edge of a hinged element.

The object of our invention is to provide
15 a simple form of desk fall support which
will open to a desired position in either
direction, and hence may be used either as a
right-hand or left-hand support. Such sup-
ports have heretofore been made with a
stop operating in but one direction, thus
necessitating the manufacture and use of a
different support for each end of the desk
fall. It is very desirable to have a form of
such support that will be interchangeable,
25 as this obviates the necessity of carrying
different kinds of supports in stock, avoids
mistakes in filling orders for repairs, and
facilitates the assembling of the desk parts.
Our invention effects this purpose by utilizing
30 stops medially located on the respective
arms of the support and adapted to engage at a corresponding point when the arms are
opened in either direction.

In the accompanying drawings, Figure 1
35 is a front elevation of the upper part of a
desk fitted with our improved device. Fig.
2 is a side elevation of our desk fall support.
Fig. 3 is a fragmental side elevation of the
support in one of its fully opened positions.

40 Fig. 4 is a section on the line 4—4 of Fig. 3.
In the embodiment of our invention here
illustrated, the desk 5 has ends 6 and 7, and
a hinged fall leaf 8 supported at either end
by our improved interchangeable supports,
which supports comprise an upper arm 9
and a lower arm 10, pivotally connected to-
gether by a rivet 12. The upper arm 9 is
perforated for pivotal attachment to the
desk end 6 or 7, and the lower arm 10 may
45 be pivotally connected in any suitable man-
ner with the fall leaf 8. In the embodiment
here shown, this attachment is effected by
means of a small bracket plate 11, pivotally
connected with the arm 10 by means of a
bolt or rivet 12, and perforated for rigid
50 attachment to the fall leaf 8. In order to
clear the end of the desk, the upper arm 11
is slightly offset at 13 just below the point
of attachment to the desk.

In the prior art, the stop which prevents
55 the unfolding support from reaching or
passing a dead center has been formed on
one of the arms near the point of intersec-
tion and so disposed as to operate by coming
in contact with the edge of the other arm.

Inasmuch as the offset at 13 is necessary and
60 the bracket-plate 11 must be on the inner
side of the arm 10 when attached to the desk,
it is obvious that a support opening in only
one direction could be used on but one end
of the desk, thus necessitating the manufac-
ture of a right-hand and left-hand support
as above stated. We have overcome this
need by forming the stops on the arms
in such a manner that the arms may open in
65 either direction to the same pre-determined
extent short of a dead center. This may be
accomplished in various ways. In the spec-
ific embodiment of our invention herein
shown one of the arms, as 9, is extended a
short distance beyond the point of connec-
tion with the arm 10, and near the middle
of the extension of the arm 9 a stud 14 is
formed. Corresponding portions 15 on each
side of the arm 10 are sufficiently offset to
permit the free passage of the stud 14, leav-
ing a central strip 16 against either side of
which the stud 14 may abut.

When in use as a left-hand support, as at
75 the end 6 of the desk shown in Fig. 1, the
position of the parts is as shown in Figs. 1
and 3, and, partly folded, in Fig. 2. The
descending fall leaf 8 opens the arms 9 and
10 which turn on the pivot 10° until the
80 stud 14 comes in contact with the central
portion 16 of the arm 10, when the limit of
the opening movement is reached before the
arm has come to a dead center, thus mak-
ing it possible to fold the support again by rais-
ing the fall leaf 8. When it is desired to use
the same support for the right-hand end of
the desk, the arm 9 is rotated past the arm
10 in the direction indicated by the arrow in
Fig. 2, until the stud 14 comes in contact
with the opposite side of the part 16 of the
85 arm 10. The stud 14 and the part 16 being
symmetrically placed, the angle formed by
the arms 9 and 10 is equal in either position.
The stud 14 may be triangular in shape so as to present a flat bearing surface to either side of the part 16.

Having thus described our invention, we claim:

1. A reversible desk-fall support comprising pivotally connected arms having reciprocally-engaging parts medially located and adapted to prevent said arms from opening in either direction to a dead center.

2. A desk fall support comprising two arms pivotally connected to each other near the ends thereof, said arms having stops so disposed as to stop the arms at a single predetermined angular position, short of a dead center, when opened in either direction.

3. A reversible desk-fall support comprising two arms pivotally connected near the ends thereof, said arms having stops so arranged as to stop the opening movement thereof at a single predetermined angular position short of a dead center when said arms are opened in either direction, and a bracket pivoted at the end of one of said arms and adapted to form a reversible connection with the desk-fall.

4. A reversible desk fall support comprising two arms pivotally connected near the ends thereof, said arms having stops adapted to prevent said arms from opening in either direction beyond a predetermined equal angle less than 180 degrees.

5. A reversible desk-fall support comprising two arms pivotally connected and adapted to stop at a predetermined equal angle, less than 180 degrees, when opened in either direction, one of said arms being offset at one end for attachment to a desk, and the other arm having pivotally connected therewith a bracket for attachment to a desk.

6. A reversible desk-fall support comprising two arms, the end of one of said arms being pivoted to the other arm adjacent to the end of said other arm, a stop lug located midway of the width of said other arm and intermediate the pivot and the end of said other arm, the metal of the first mentioned arm being displaced out of the plane of said first mentioned arm, at opposite edges of said first mentioned arm, leaving a strip which serves as a stop coacting with the first mentioned stop.

In testimony whereof we hereunto set our hands in the presence of two witnesses.

KONSTANTINE THULANDER.
VICTOR B. NELSON.

In the presence of—

F. G. HOGLAND,
H. W. CARLSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."