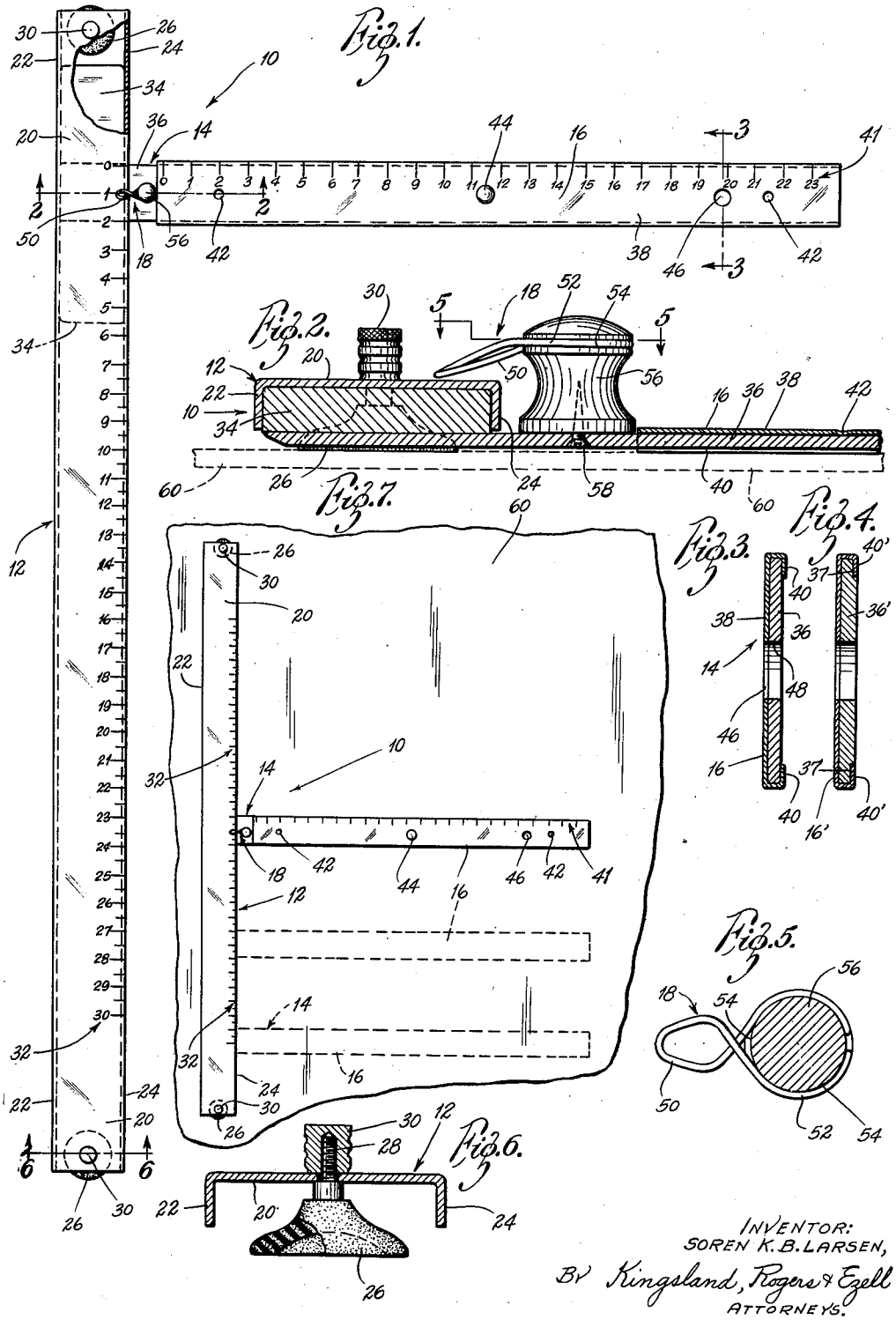
May 2, 1950 S. K. B. LARSEN 2,506,426

DRAWING DEVICE

Filed Dec. 26, 1946



INVENTOR:
SOREN K. B. LARSEN,
BY Kingsland, Rogers & Ezell
ATTORNEYS.

Patented May 2, 1950

2,506,426

UNITED STATES PATENT OFFICE

2,506,426

DRAWING DEVICE

Soren K. B. Larsen, Collinsville, Ill.

Application December 26, 1946, Serial No. 718,314

2 Claims. (Cl. 33—76)

1

The present invention relates generally to drafting instruments, and more particularly to a drafting instrument for making parallel lines and for obtaining measurements therebetween and therealong on a blackboard.

There has long existed the need of an instrument for facilitating the making of parallel lines on a blackboard. The use of the well-known T square to make horizontal parallel lines is exceedingly difficult since it is required to hold the T square with one hand while drawing a line with chalk held in the other hand. It is even more difficult to draw vertical parallel lines by the use of a T square and triangle, or the like, guided along the top edge of the T square since one hand must now hold and direct both the T square and the triangle.

Therefore, it is an object of the present invention to provide a novel drafting instrument by which parallel lines may be readily made on a blackboard, or the like.

Another object is to provide a novel drafting instrument by means of which parallel lines may be readily spaced fractional or whole units apart.

Another object is to provide a novel support and guide for adapting a T square to blackboard use in the making of parallel lines.

Another object is to provide a novel drafting instrument for use on a blackboard, or the like, by which parallel lines may be readily spaced vertically in respect to distances therebetween, and which serves as a support and guide for a triangle in making vertical parallel lines and in spacing the same as desired.

Another object is to provide a novel drafting device which facilitates the making of parallel lines on a blackboard, or the like.

Another object is to provide a novel drafting device for making parallel lines on a blackboard, or the like, which is readily applied to and removed from the surface of a blackboard, or the like, without marring or in any wise injuring the surface thereof.

Other objects are to provide a novel drafting device for use on blackboards, and the like, which is sturdy in construction, which is inexpensive to make, which is readily fabricated, and which is simple in design and form, facilitating maximum, efficient employment of the same by a user after minimum instruction.

The foregoing and other objects and advantages are apparent from the following description taken with the accompanying drawing, in which:

Fig. 1 is a plan view of a drafting device constructed in accordance with the teachings of the

2

present invention, a portion thereof being broken away to illustrate details;

Fig. 2 is an enlarged cross-sectional view on the line 2—2 of Fig. 1, a supporting blackboard surface being indicated in dotted lines;

Fig. 3 is an enlarged cross-sectional view on the line 3—3 of Fig. 1;

Fig. 4 is an enlarged cross-sectional view on the line 3—3 of Fig. 1, showing a modified construction;

Fig. 5 is a cross-sectional view on the line 5—5 of Fig. 2;

Fig. 6 is an enlarged cross-sectional view on the line 6—6 of Fig. 1; and

Fig. 7 is a view showing the drafting device applied to a blackboard, several selected positions of the movable member being shown in dotted line.

Referring to the drawing more particularly by reference numerals, 10 indicates generally a drafting device formed in accordance with the teachings of the present invention. The drafting device 10 includes a support and guide member 12, a movable member 14 supporting a sheath 16, and an index member 18 supported on the movable member 14.

The support and guide member 12 is of channel cross section, preferably of metal, although other materials could be used, which includes a bight 20 and legs 22 and 24. At each end of the member 12 is a suction cup 26 secured to the bight 20 between the legs 22 and 24 by a threaded shaft 28 secured to the suction cup 26 which extends through an opening in the bight 20 and is engaged by an internally threaded cap 30. The outer surface of the bight 20 is shown as marked off in inches, providing a scale 32 for measuring purposes.

The movable member 14 is formed as a T square including a head 34 and a stem 36 which may comprise two pieces secured together by a suitable means, or which may be of integral construction. The stem 36 slidingly receives the sheath 16, which is of the cross section shown in Fig. 3 including a base portion 38 and returned flanges 40 which extend around the stem 36. The base portion 38 is marked off on its outer surface in inches, providing a scale 41 for measuring purposes. Inwardly directed bosses 42 are formed in the base portion 38 to frictionally engage the stem 36 to assist in maintaining the sheath 16 at any particular adjusted position. A manipulating knob 44 is secured to the sheath 16 intermediate the ends thereof. The sheath 16 and the stem 36 include apertures 46 and 48, re-

spectively, for hanging the sheath 16 and movable member 14 on a nail, or the like, when not in use.

The index member 18 comprises a wire looped to the form clearly shown in Figs. 2 and 5, and includes a finger portion 50 and a mounting portion 52. The mounting portion 52 engages a groove 54 in the top of a knob 56 secured to the stem 36 adjacent the support and guide member 12 by a screw 58, or the like. Manifestly, the index member 18 may take other forms. The finger portion 50 of the index member 18 extends over the scale 32 marked on the member 12.

A stem 36' of modified cross section is shown in Fig. 4. The stem 36' has opposed marginal grooves 37 which receive returned flanges 40' of the sheath 16' flush with the undersurface of the stem 36'. This construction eliminates contact of the returned flanges with the supporting blackboard.

In use, the drafting device 10 is mounted on a blackboard 60 through the medium of the suction cups 26, as is shown in Figs. 2 and 7. Usually the member 12 will be disposed vertically although it is manifest that the member 12 may be disposed at any angle desired. After the device 10 is mounted in a selected position, the suction cups 26 permit sliding thereof, particularly on a smooth blackboard, obviating removal of the device 10 in changing the angle thereof. The movable member 14 slides in respect to the supporting member 12, the T head 34 being trapped in the channel of the member 12 and slidable longitudinally thereof. It is to be understood that the head 34 may form an L with the stem 36, a construction adapted to increase the limit of the scale for a given length of the member 12. It is clear that the user of the device 10 need but steady the movable member 14 while making parallel lines, since the support and guide 12 prohibit the pivotal movement thereof during the drawing of lines on the blackboard 60.

The sheath 16 forms an extension for the stem 36, in effect, and provides a scale which may be used when a triangle or other instrument is being used to draw lines.

The bosses 42 assist in maintaining the sheath 16 in a selected position. The knob 44 facilitates sliding manipulation of the sheath 16 and serves for holding the movable member 14 and the sheath 16 while drawing horizontal parallel lines.

The index member 18 facilitates movement of the member 14 along the member 12 distances of even units employed in the scale 32. For example, should the upper edge of the member 14 be at some figure as four and seven-sixteenths inches, to move the member 14 three whole units, it is but necessary to place the finger portion 50 of the index member 18 on the most convenient whole unit and then move the member 14 three units with the finger portion 50 as the guide, which will readily and speedily bring the member 14 to a position with the upper edge thereof adjacent the seven and seven-sixteenths inches index line.

It is apparent that the support and guide 12 may be employed to support and guide a standard T square, and it is to be understood that this novel feature is an important part of the present invention.

It is apparent that there has been provided a drafting device which fulfills all the objects and advantages sought therefor.

It is to be understood that the foregoing description and the accompanying drawings have been given by way of illustration and example. It is also to be understood that changes in form of the several parts, substitution of equivalent elements and rearrangement of parts, which will be readily apparent to one skilled in the art, are contemplated as within the scope of the present invention, which is limited only by the claims which follow.

What is claimed is:

1. In combination, a drafting device comprising an elongated support and guide member of substantially channel cross section including spaced flanges, spaced suction cups connected to said support and guide member on the flanged side for mounting the same on a supporting surface with the spaced flanges directed towards such supporting surface for substantially instantaneous removal therefrom, and a headed member including a stem and head disposed with the head slidably trapped within the channel of said support and guide member and the stem extending at an angle thereto when said drafting device is operatively mounted upon a supporting surface, so that said drafting device is adapted for ready use upon a blackboard or other vertical surface.

2. In combination, a drafting device comprising an elongated support and guide member of substantially channel cross section having graduations on the upper surface, spaced suction cups connected to said support and guide member on the flanged side for mounting the same on a supporting surface with the spaced flanges directed towards such supporting surface for substantially instantaneous removal therefrom, a headed member including a stem and head disposed with the head slidably trapped within the channel of said support and guide member and the stem extending at an angle thereto when said drafting device is operatively mounted upon a supporting surface, so that said drafting device is adapted for ready use upon a blackboard or other vertical surface, and an adjustable pointer mounted on the stem of said headed member including a portion cooperatively disposed in relation to said graduations on said support and guide member.

SOREN K. B. LARSEN.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
826,425	Heathcote	July 17, 1906
950,696	Herman	Mar. 1, 1910
1,080,222	Kowalsky	Dec. 2, 1913
1,091,461	Russo	Mar. 24, 1914
1,273,086	Newell	July 16, 1918
1,422,641	Walters	July 11, 1922
1,679,084	Hooper	July 31, 1928
2,370,741	McDonnell	Mar. 6, 1945