Nov. 11, 1958 J. W. CARLSON 2,859,525

BEAM COMPASS

Filed March 23, 1956

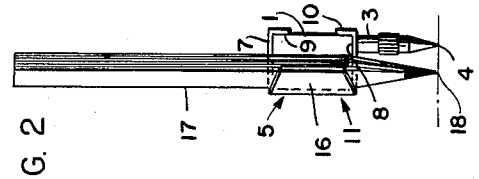


FIG. 2

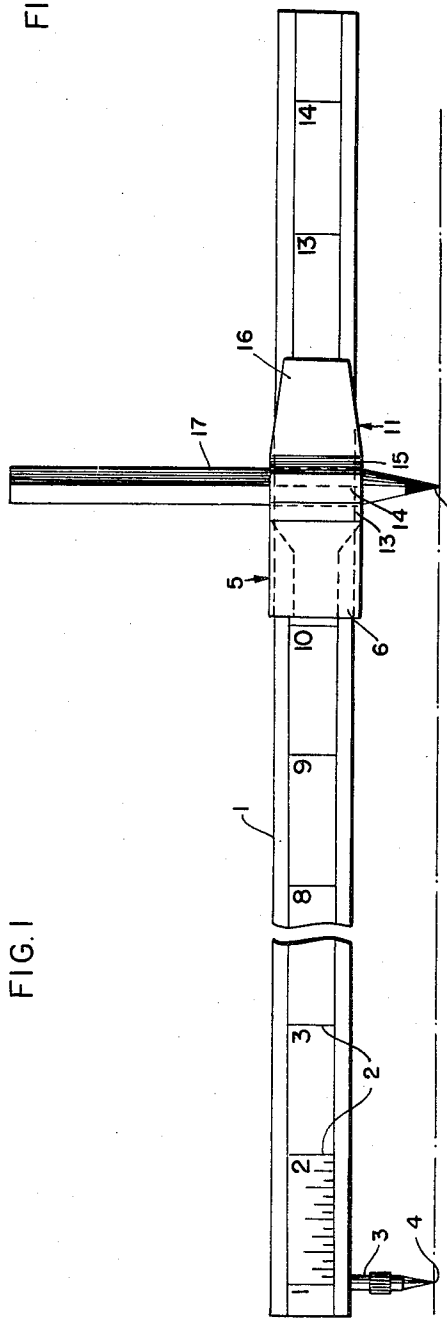


FIG. 1

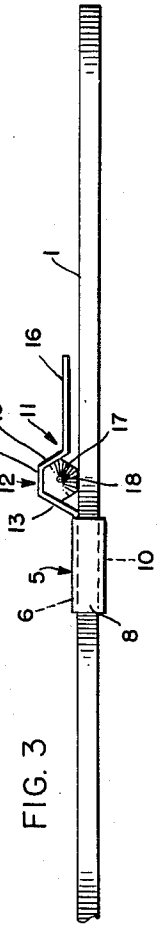


FIG. 3

INVENTOR:
JOHN W. CARLSON
BY
Marzall, Johnston, Cook & Root.
ATT'YS

United States Patent Office 2,859,525 Patented Nov. 11, 1958

2,859,525

BEAM COMPASS

John W. Carlson, Chicago, Ill.

Application March 23, 1956, Serial No. 573,495

2 Claims. (Cl. 33—27)

This invention relates in general to beam compasses and is directed particularly to a novel form of carriage for supporting the marking device thereon.

Beam compasses are customarily used by architects, designers, carpenters, cabinet makers, surveyors, and in similar types of work where large layouts are necessary. Beam compasses ordinarily are provided with an elongated beam having a pointed leg at one end thereof which acts as a center, and which also supports a carriage member slidable longitudinally thereof which carries a marking device, such as a pencil. In order to secure the carriage and its marker in any adjusted position thereof, it has been customary to use a screw device which is manually operated to frictionally engage the beam so that the carriage cannot be moved from its adjusted position. The carriages of prior devices have also used a separate securing means for holding the marker or pencil and thus two adjustments were necessary.

In the present invention the use of headed or knurled screws or other similar devices for holding the marker and carriage in adjusted position are eliminated, thus enabling the carriage to be quickly adjusted to any desired radius and locked against movement merely by the application of pressure to the carriage.

It is, therefore, a principal object of the present invention to provide a beam compass wherein the carriage which supports the marker is slidable longitudinally of the beam and has yieldable means thereon for yieldably retaining a marker in association therewith.

Another object of the invention is to provide a beam compass wherein the carriage thereof is provided with a yieldable arm adapted to yieldably retain a marking device between said arm and the beam of the compass when the arm is pressed in the direction of the beam.

A further object of the invention is to provide a beam compass where the carriage thereof is provided with a yieldable arm to support a marker between the arm and the beam and when pressure is applied to the arm in the direction of the beam, it will not only secure the marker in place, but will simultaneously lock the carriage against movement during the scribing of the desired arc.

Other objects and advantages of the invention will become apparent upon reading the following description taken in conjunction with the accompanying drawing, in which

Fig. 1 is a front elevational view of a beam compass embodying the present invention;

Fig. 2 is an end elevational view thereof, and

Fig. 3 is an under plan view.

Referring now more particularly to the drawing, the beam or arm of the compass is designated by the numeral **1** and a face thereof is provided with suitable indicia **2**. A leg **3** extends downwardly at one end of the beam **1** and is pointed, as at **4**, so that it may act as the center of an arc to be scribed.

The invention herein is directed specifically to the carriage generally indicated by the numeral **5**. As stated hereinabove, carriages for the marker have heretofore been locked in place by screws and the like, and a separate holder has been provided for the marker which is also held in place by means such as screws. In the present instance the carriage **5** is provided with a main body portion **6** having upper and lower rearwardly extending ears **7** and **8** which terminate respectively in downwardly and upwardly extending flanges **9** and **10**. The ears **7** and **8** are spaced apart the width of the beam **1** so that it may be snugly received therebetween. The flanges **9** and **10** are spaced from the front of the body **6** a distance substantially equal to the thickness of the beam **1** so that when the beam is received thereby, the carriage may freely slide longitudinally thereof.

A yieldable or resilient arm **11** extends outwardly from one side of the body **6** in a direction generally parallel with the beam **1**. This arm **11** has an offset portion generally shown at **12** which may be of any suitable configuration, although in the present instance it is illustrated as having the angular sides or faces **13**, **14** and **15**. The arm thereof extends from the face **15** outwardly in substantial parallelism with the beam to provide a freely flexible portion **16**. A marking device, such as a pencil **17** having a point **18** thereon, may then be snugly received between the recess formed by the offset portion **12** and one face of the beam **1**.

In the present instance the beam has been illustrated as being calibrated in inches and it will be noted that the distance from the left-hand edge of the body **6**, as shown in Fig. 1, to a vertical plane passing through the point **18** of the marker **17** is equal to one inch. Thus, when the said lefthand edge of the body **6** is aligned with any given mark on the beam, it will accurately indicate the radius of the arc which will be scribed.

It will thus be evident that the yieldable or flexible arm **11** may yieldably retain a marker, such as the pencil **17**, in place with respect to the carriage. The pencil may be merely inserted in the recess provided by the offset portion **12** and a face of the beam **1** and held in place without the aid of any external means, such as screws. The carriage, however, may still be moved freely lengthwise of the beam and brought to rest at the desired radius.

Inasmuch as one hand of the user must necessarily be applied to the beam to scribe the arc, the operator in the present instance will merely grasp the beam in the vicinity of the portion **16** of the yieldable arm **11**, and when this is done and the portion **16** is urged in the direction of the beam, an angular pressure will be applied against the rear face of the beam by the flanges **9** and **10**. This will have a wedging action which will effectively lock the carriage in place and prevent inadvertent movement thereof during the time that an arc or circle is being scribed.

The present construction has many advantages which will become obvious to those skilled in the art, perhaps the chief one of which is the case and facility with which different radii may be assumed by the marker and then actually scribed without the necessity of manipulating screws and other adjustments.

Changes may be made in the form, construction and arrangement of parts from those disclosed herein without in any way departing from the spirit of the invention or sacrificing any of the attendant advantages thereof, provided, however, that such changes fall within the scope of the claims appended hereto.

The invention is hereby claimed as follows:

1. A beam compass comprising an elongated beam, a pointed leg mounted on said beam and projecting therefrom for use as a center about which an arm may be scribed, a carriage slidably mounted on said beam for movement longitudinally thereof, an elongated marker disposed transversely to said beam in engagement

with one side thereof, and an elongated resilient arm having one end attached to said carriage, said arm projecting from said carriage and having a portion disposed in overlying relation to said marker, said arm having a second portion normally extending along said beam in directly outwardly spaced relation to said side and movable inwardly toward said side to thereby flex said arm around said one end into position to retainingly clamp said marker against said side.

2. A beam compass comprising an elongated beam, a pointed leg mounted on said beam and projecting therefrom for use as a center about which an arc may be scribed, a carriage slidably mounted on said beam for movement longitudinally thereof, an elongated marker disposed transversely to said beam in engagement with one side thereof, and an elongated resilient arm having

one end attached to said carriage, said arm projecting from said carriage and having an intermediate portion disposed in overlying relation to said marker, said arm having a free end portion normally extending along said beam in directly outwardly spaced relation to said side and movable inwardly toward said side to thereby flex said arm around said one end into position to retainingly clamp said marker against said side.

References Cited in the file of this patent

UNITED STATES PATENTS

811,237	Merritt	Jan. 30, 1906
1,240,853	Jachimowicz	Sept. 25, 1917
1,295,932	Schulze	Mar. 4, 1919
2,106,398	Bartusch	Jan. 25, 1938
2,542,561	Olejniczak	Feb. 20, 1951