

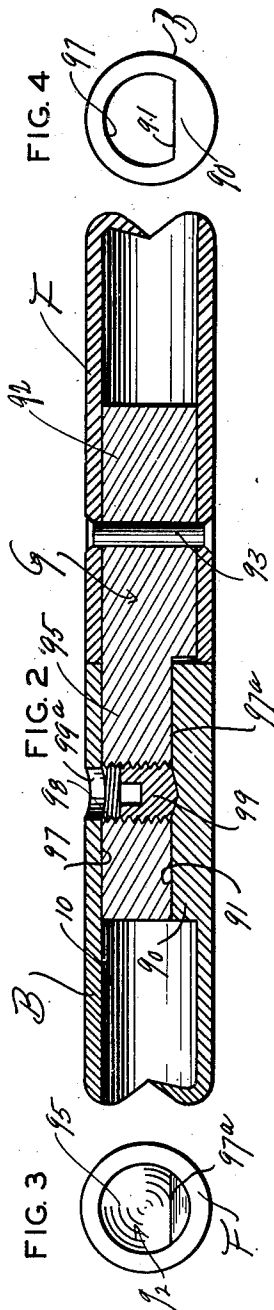
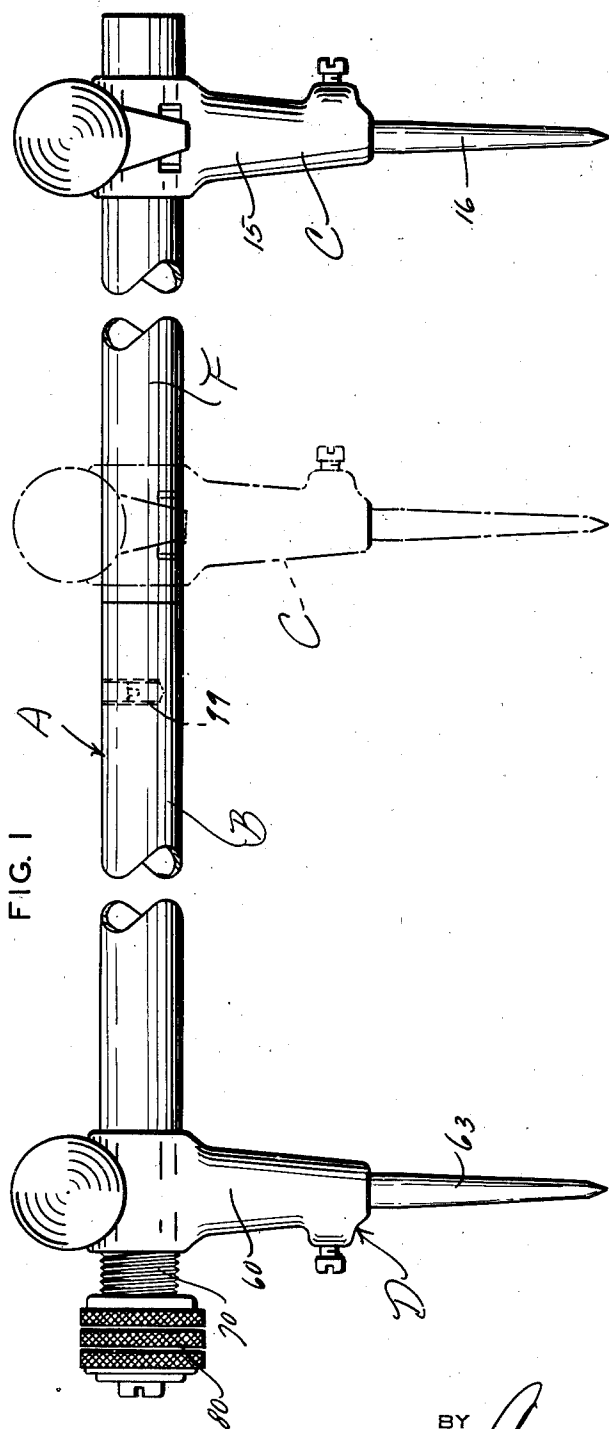
March 8, 1949.

C. J. O'ROURKE

2,463,796

TRAMMEL

Original Filed July 7, 1944



INVENTOR.
CARL J. O'ROURKE

BY *Lancaster, Allen & Rammell*
ATTORNEYS.

UNITED STATES PATENT OFFICE

2,463,796

TRAMMEL

Carl J. O'Rourke, Mount Vernon, Ohio

Original application July 7, 1944, Serial No. 543,864. Divided and this application June 15, 1945, Serial No. 599,720

3 Claims. (Cl. 287-127)

1

This invention relates to improvements in trammels.

The primary object of this invention is the provision of a trammel of the general nature set forth in my co-pending application Serial Number 543,864, of which the present application is a division.

An object of the present invention is the provision of an improved beam construction for a panel by means of which the beam may be made of sections connected by an improved joint which will permit of the sliding of the points in adjustment therepast, without interference.

A further object of this invention is the provision of an improved coupling means for trammel beams.

Other objects and advantages of the invention will appear in the following detailed description.

In the accompanying drawing forming a part of this specification and wherein similar reference characters designate corresponding parts throughout the several views —

Figure 1 is a side elevation of the improved trammel.

Figure 2 is a fragmentary cross sectional view showing improved means for mounting an extension beam upon the main beam of a trammel or beam compass.

Figure 3 is an end view showing the end structure of the extension beam.

Figure 4 is an end view showing the construction of the end of the main beam which receives the extension beam.

In the drawing, wherein for the purpose of illustration is shown a preferred embodiment of the invention, the letter A may generally designate the improved trammel. It includes a main beam B adapted to receive an extension beam F through an improved coupling structure G. On the beam structure I may employ a point carrying fixture or appliance C and another point appliance D, the same being of the general nature described in detail in my co-pending application above mentioned.

It is the purpose of the present invention to provide a light, durable and economical beam construction with which an extension beam may be used through an accurate straight lined coupling connection. The beam structure is preferably tubular and with the wall thickness just sufficient to preserve the desired rigidity thereof.

The point carrying appliance C includes a body portion 15 having a suitable point 16 connected therewith; the body 15 being suitably socketed

2

for sliding along the entire beam structure, as more specifically described in my above identified application of which the present application is a division.

The point carrying fixture C includes a body portion 60 and a point 63. The body 60 is screw threaded at 70 in an adjusting nut 80 at an end of the beam, the nut 80 being provided with a knurled surface for a vernier-like adjustment of the point structure D upon the beam, as has been described in greater detail in my co-pending application above identified.

Referring to the improved means for mounting an extension beam F upon the main beam B, the latter at its end opposite the fixture D is open and provided with a short integral segment 90. best shown in Figures 2 and 4 of the drawing. This defines a flat surface 91.

The extension beam F is tubular and has a mounting plug 92 force fitted or held by means of a diametrically disposed pin 93 in an end thereof. The plug 92 beyond the extreme end margin of the extension beam F has an extension 95 of segmental cross section, and of a nature to fit in the opening 97 in the end of the beam B. This segmental extension 95 is provided with a flat surface 97^a adapted to contact the flat surface 91 of the main beam B. With this construction it is obvious that the beams B and F may be connected so as to prevent relative rotation. In order to secure the beams in close abutting relation, and to hold such position, extension portion 95 of the plug 92 is provided with a transverse screw threaded socket 98 adapted to receive an Allen type set screw 99. The latter is rather shallow and bites into the segment 90 to secure the beams B and F in proper alignment. The beam B is provided with a suitable opening 99^a to permit of the extension of a screw driver or like tool into the screw threaded passageway 98 for access to the set screw 99.

It will be noted from the drawing that the improved coupling possesses relatively long bearing surfaces so that there will not be any angular misalignment of the two beams, and the segmental connection insures accuracy against rotative turning movement of the beam structures. All parts of the connection are such that the beam point C may be slid along the two beams past the connection.

Various changes in the shape, size and arrangement of parts may be made to the form of invention herein shown and described, without departing from the spirit of the invention or the scope of the following claims.

3

I claim:

1. In a trammel structure the combination of a main beam, an extension beam, said main beam having an end provided with a socket of segmental cross section, the extension beam having a reduced extension thereon of segmental cross section for snug interfitting in said socket of the main beam whereby to prevent relative rotation of said beams, and set screw means transversely adjustably carried by said segmental extension of the extension beam adapted to clamp within the segmental socket of the main beam against the latter to prevent longitudinal detachment of said beams.

2. In a compass beam structure the combination of a pair of beam sections, means upon one of said sections providing a rigidly connected reduced extension at an end thereof of segmental cross section, the other beam at the adjacent end being provided with a socket of segmental cross section for receiving the reduced extension of the first mentioned beam, said beams when so connected having the external surfaces thereof flush and unobstructed, a set screw transversely adjustable upon said reduced extension, the other beam having an opening for releasably inserting the set screw into said reduced extension in binding engagement against the beam section having the socket for receiving the reduced extension.

3. In a sectional beam structure for compasses the combination of a pair of tubular beams of exactly the same external diameter, one of said beams at an end thereof in the passageway thereof having an elongated segmental projection provided with a flat surface having an indentation therein, the other beam having a plug fixedly inserted in the passageway of the end thereof and having a segmental extension projecting therefrom provided with a chordal flat surface adapted to fit snugly on the flat surface of the segmental projection of the first mentioned beam, the segmental extension of the second beam hav-

4

ing its external convex surfacing flush with the inner wall of the beam section passageway which supports said extension and adapted to fit snugly against the inner wall of the first mentioned beam section when the segmental extension of said plug is inserted into the passageway of the first mentioned beam section, said segmental extension of the second beam having a transverse threaded passageway therein and the first mentioned beam having a transverse opening which aligns axially with said screw threaded passageway when the beams are assembled, said screw threaded passageway when the beams are assembled with the end edges of the tubular beams abutting axially aligning with the depression in the flat surface of the segmental projection of the first mentioned beam, and a short set screw threaded into the segmental extension of the second beam and having a tapered end adapted to seat accurately in the depression of the flat surface of the segmental projection of the first mentioned beam.

CARL J. O'ROURKE.

REFERENCES CITED

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

UNITED STATES PATENTS

Number	Name	Date
408,953	Chivill	Aug. 13, 1889
473,203	Budke	Dec. 15, 1896
626,075	Mock et al.	May 30, 1899
1,678,350	Ott	July 24, 1928
2,097,095	Goldfield et al.	Oct. 26, 1937

FOREIGN PATENTS

Number	Country	Date
101,204	Austria	Oct. 10, 1925
611,970	Germany	Apr. 11, 1935
846,381	France	June 5, 1939