

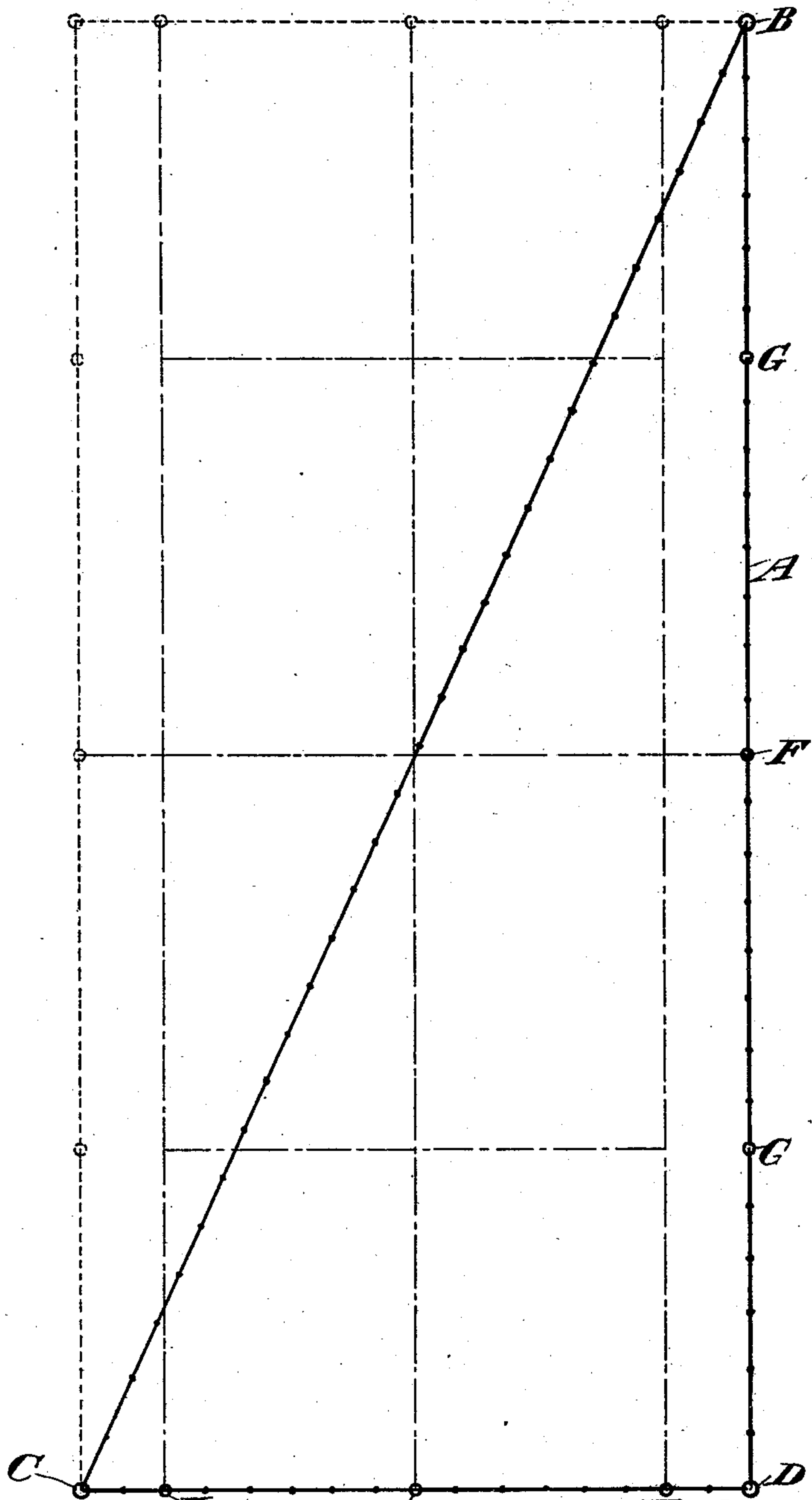
(No Model.)

L. A. SWOPE.

DEVICE FOR DETERMINING POINTS IN LAYING OUT RECTANGULAR COURTS.

No. 464,205

Patented Dec. 1, 1891.



Witnesses:-
D. H. Haywood
C. Sundgren

Inventor:-
Luther A. Swope
by attorneys
Brown & Lueder

UNITED STATES PATENT OFFICE.

LUTHER A. SWOPE, OF CHICAGO, ILLINOIS.

DEVICE FOR DETERMINING POINTS IN LAYING OUT RECTANGULAR COURTS.

SPECIFICATION forming part of Letters Patent No. 464,205, dated December 1, 1891.

Application filed July 2, 1891. Serial No. 398,222. (No model.)

To all whom it may concern:

Be it known that I, LUTHER A. SWOPE, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Devices for Laying Out Rectangular Courts, of which the following is a specification.

My invention relates to an improvement in devices for laying out rectangular courts, and more particularly courts used in connection with the game of lawn-tennis or other field game where it is required by the rules that a rectangular court of given dimensions shall be established to determine the features of the play.

In laying off a court—such, for example, as that employed in the game of lawn-tennis—it is found extremely difficult to make the boundaries of exactly the required length and located in exactly the proper relation relatively to one another. The shrinkage or lengthening of the line commonly employed to mark the courts under the varying conditions of the atmosphere and the absence of any positive guide to determine the exact relation of one side to the side lying adjacent thereto are among the causes which give rise to the difficulties experienced.

The object of my present invention is to provide a simple and convenient device by which a court may be marked out with great facility and with absolute correctness by those who are unskilled as well as the skilled.

A practical embodiment of my invention is represented in the accompanying drawings, which represent the device in position to mark one-half of a court, its position to mark the opposite half being represented by dotted lines.

The device consists of an endless chain or cord provided at suitable intervals throughout its length with indicating marks or attachments, preferably rings, so located that when the chain or cord is stretched tightly between two indicating marks or attachments and a third is manipulated so as to draw the chain tightly between it and each of the first two named the two shorter intervals of the chain or cord will of necessity occupy the positions of two adjacent sides of the court to be marked. A reversal of these conditions will denote the remaining two sides of the court.

A represents the body of the chain or cord, preferably a light chain, because of its not being liable to shrink when wet, the links of which may be of any suitable length and joined together in any well-known or suitable manner, so as to allow them to readily assume positions in alignment under light strain. One point upon the chain which is intended to occupy a position at one extremity of the diagonal of the court is represented by B, and the chain is preferably provided with a small ring at this point for convenience in inserting a pin therethrough to hold the chain in position. The point which is at an interval from the point B equal to the length of the diagonal of the court is represented by C, and the chain is likewise preferably provided with a ring at this point for the reception of a pin. That point which is at an interval from C equal to one end of the court and at an interval from B equal to one side of the court is represented by D, and the chain is also here preferably provided with a ring. From this it follows that if the chain be fastened at B at the point on the lawn where it is desired that one corner of the court shall be located and the point C be fastened where it is desired that the opposite corner of the court shall be located, with the chain between the two points B and C drawn taut, the corner of the court intermediate of the two diagonally-opposite corners may be positively located by drawing the point D to one side until the chain shall be taut between it and each of the points B and C. By reversing the positions of the points B and C with respect to the determined points upon the lawn and again drawing the point D so as to make the chain taut between it and each of the points B and C the remaining two sides of the court will be determined.

In addition to determining the sides of the court the chain may be further provided at suitable intervals with indicating marks or attachments to determine the positions of the lines bounding the service-courts, the line for the net, and the line for determining the boundary when playing "single" instead of "double." I have indicated such points upon the chain as follows: E represents the position of the end of the center line running lengthwise of the court. F represents the po-

sition of the center line running transversely of the court or the net-line. G G represent the positions of the ends of the transverse lines which determine the boundaries in one
5 direction of the service-courts, and H H represent the position of the end of the lines running lengthwise of the court to narrow it for playing singles.

The device as a whole may be packed in
10 small compass and is comparatively inexpensive, while a great amount of time is saved by its use which has heretofore been spent in endeavoring to correctly determine the boundaries of the court.

15 What I claim is—

1. The device for laying out rectangular areas, comprising an endless chain or cord having indicating-marks at intervals thereon corresponding to the corners of the area when
20 the intervals of chain or cord between the marks are taut, substantially as set forth.

2. The device for laying out rectangular areas, comprising an endless chain or cord having indicating-marks thereon for determining the corners of the area when the in- 25
tervals of chain or cord between the marks are taut, and intermediate marks on said chain for determining the location of additional boundaries in the subdivision of the general area, substantially as set forth. 30

3. The device for laying out rectangular areas, comprising the endless chain or cord having indicating-marks located at intervals thereon corresponding to the corners of the court when the intervals of chain between the 35
marks are taut, said indicating-marks being constructed to serve as retaining devices, substantially as set forth.

LUTHER A. SWOPE.

Witnesses:

H. A. HOWARD,
DURANT HOWARD.