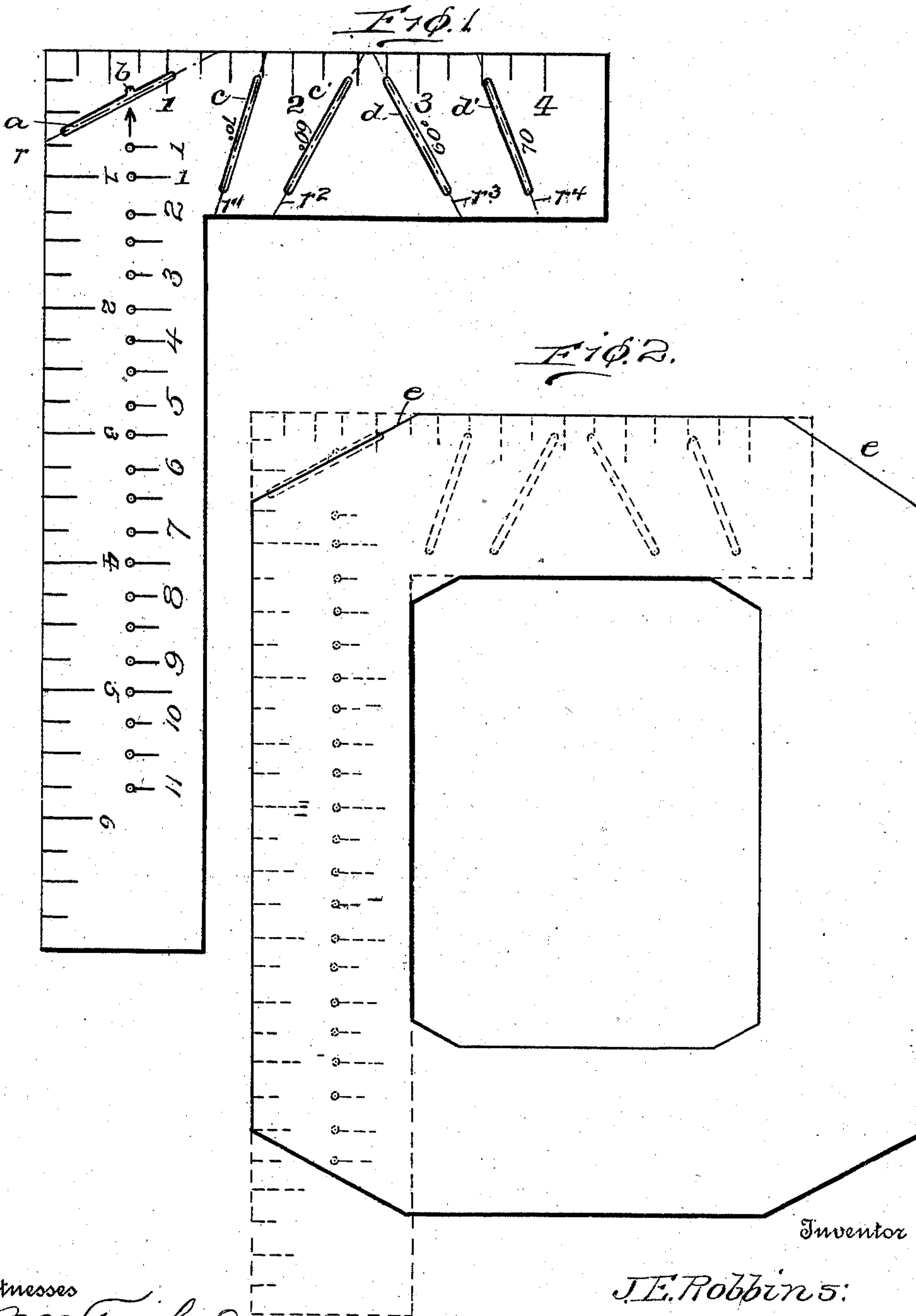


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MECHANICAL LETTERING DEVICE.
APPLICATION FILED FEB. 5, 1910.

967,561.

Patented Aug. 16, 1910.

2 SHEETS—SHEET 1.



Witnesses

J. M. Fowler
N. E. Garner

Inventor

J. E. Robbins

By

James S. Duffie

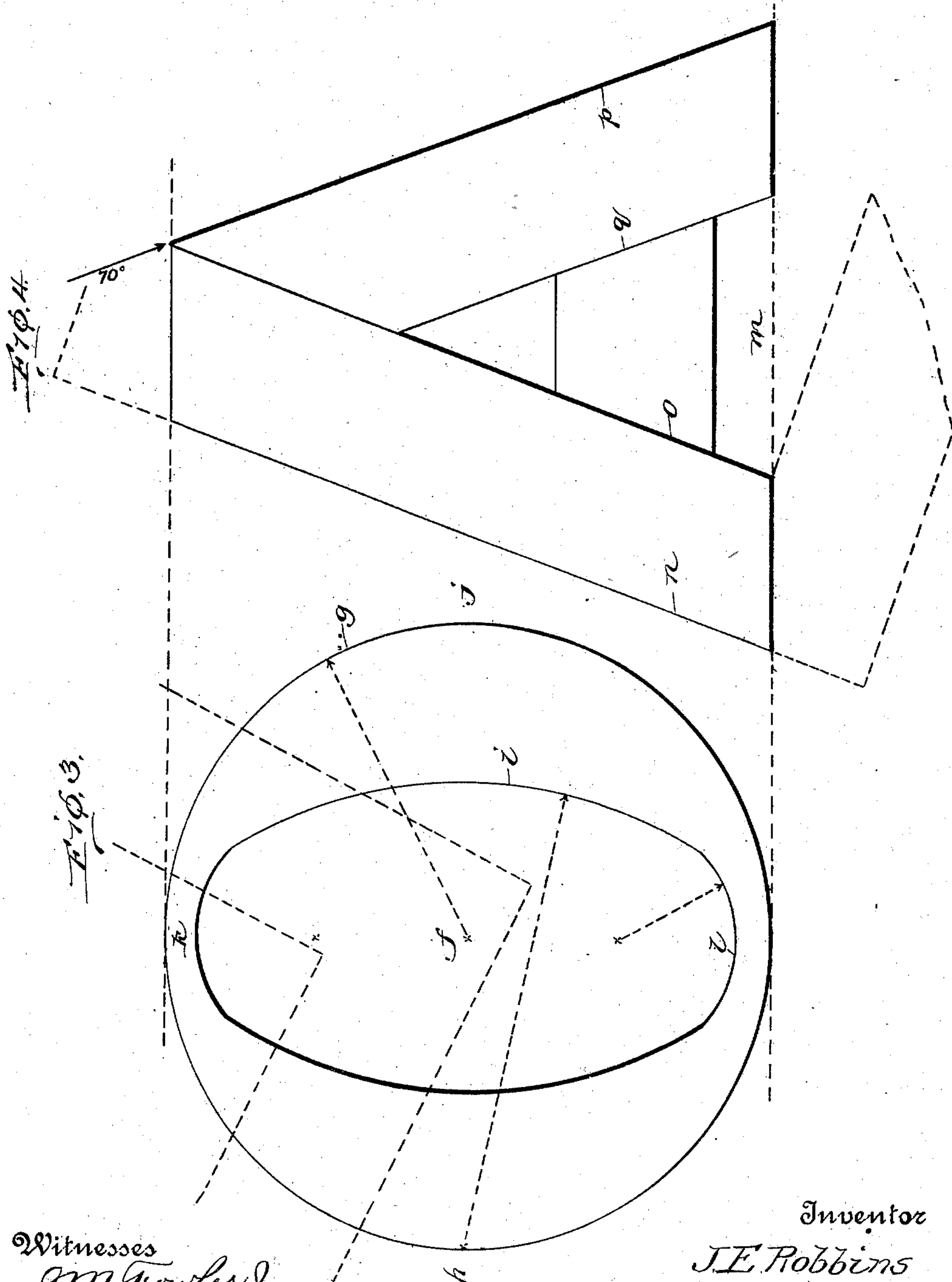
Attorney

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By *John A. Duffie*
Attorney

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UNITED STATES PATENT OFFICE.

JAMES E. ROBBINS, OF NEBRASKA CITY, NEBRASKA.

MECHANICAL LETTERING DEVICE.

967,561.

Specification of Letters Patent.

Patented Aug. 16, 1910.

Application filed February 5, 1910. Serial No. 542,325.

To all whom it may concern:

Be it known that I, JAMES E. ROBBINS, a citizen of the United States, residing at Nebraska City, in the county of Otoe and State of Nebraska, have invented certain new and useful Improvements in Mechanical Lettering Devices, of which the following is a specification.

My invention is a mechanical lettering device which may be used in making accurately any size and style of letters.

In the accompanying drawings: Figure 1 is a face view of my invention. Figs. 2, 3 and 4 are diagrams showing how the invention may be used.

My invention is described as follows.

My device consists of a carpenter's square, the left hand edge of the beam being divided into inches and parts of inches and numbered; the center of its beam is provided with a vertical row of perforations $\frac{1}{4}$ of an inch apart. Every alternate perforation is numbered, thus, beginning at the upper end of the square, the first perforation is opposite the $\frac{3}{4}$ inch mark, the second is opposite the inch mark and is numbered 1, the third perforation is opposite the $1\frac{1}{4}$ inch mark and is numbered 2, the fifth one is opposite the $1\frac{3}{4}$ inch mark and is numbered 3 and so on down to 11, numbering every alternate perforation in consecutive order.

In the upper left hand corner of the square is a slot *a*, its left hand end being half way distant between the second and third quarter marks of the beam of the square and its right hand end resting on the first inch mark of the blade of the square, and about $\frac{1}{3}$ down from the right hand end of said slot is a small recess *b*. This slot stands at an incline of 30 degrees in relation to the lower edge of the blade. Said blade is provided with two slots *c* and *c'*, the first standing at an incline of 70 and the other 60 degrees in relation to the lower edge of the blade, both leaning to the right. The extreme right hand end of said blade is provided with two slots *d* and *d'* respectively; the first standing at an incline of 60 and the other at 70 degrees to the lower edge of the blade, both leaning to the left. Said slots *a*, *c*, *c'*, *d*, and *d'* have drawn longitudinally through their centers and running to the edges of said square, lines *r*, *r'*, *r*², *r*³ and *r*⁴, respectively, so that the desired angles may

be made by placing a pencil mark at each end of said lines instead of using the slots.

A little study would quickly show how this device is used. Place this device down on the sheet, on which the lettering or drawings are to be made; the right angle corner to the left and draw a vertical line with the left hand edge of the square and a line with the blade or right angle edge and run a line through the slot *a* to get an angle line of 30 degrees to the left at the corner, and by turning the square over the right angle part to the right to get a similar angle *e* and so on at every corner of the large figure marked Fig. 2.

If I desire to make a circle 5 inches in diameter, I place my pivot in the perforation immediately opposite inch 1, and my pencil in the perforation immediately opposite $3\frac{1}{2}$ inches and describe a circle with its center at the point indicated at *f*, Fig. 3, and thus I get a perfect circle 5 inches in diameter indicated at *g*. If I want to draw the arc of a circle $9\frac{1}{2}$ inches in diameter, I place my pivot through the perforation immediately opposite inch 1 and my pencil through the perforation immediately opposite $5\frac{3}{4}$ and draw my ellipse as indicated by the elliptical line marked *i* and to draw a similar arc opposite the arc just made, I place my pivot at *j* immediately through the perforation marked 1, and my pencil through the perforation at $5\frac{3}{4}$, and I form the short arcs *k* and *l* in the same way.

It will be seen by using this device that I can, without the aid of dividers, accurately draw any size circle or any arc of a circle. It will be observed that if I place the blade of the square on the base line *m* and draw a line through the slot *c*, I will get a line *n* at an angle of 70 degrees from said base line, and if I slip the square to the right and perform the same operation I get a similar line of 70 degrees as at *o* and if I reverse the rule and draw a line through the same slot I get a line *p* at an angle of 70 degrees from said base line and if I slip the rule to the left I get a similar line *q*, with the same inclination, and then if I draw a line along the lower edge of the blade, connecting the lower ends of the lines *n*, *o*, *q*, and *p*, I get a letter A; the two horizontal lines connecting the inclined lines *o* and *q* may be drawn by using any one of

the straight edges of my lettering device. The same result may be obtained by making the proper dots at the ends of the lines r , r' , r^2 , r^3 and r^4 and drawing the lines as indicated above.

Having described my invention what I claim as new and desire to secure by Letters Patent, is:

1. A carpenter's square having the left hand edge of its beam divided into inches and parts of inches, said inches being numbered from top to bottom; a line of perforations in the center of said beam, the upper perforation immediately opposite the three-quarter inch mark, the second perforation immediately opposite the inch mark, the perforations continuing down the center of said beam at intervals of $\frac{1}{4}$ inch and numbered alternately 1, 2, 3, and 4 and so on down to the lower end of said line, said square having in its upper left hand corner a slot a at an incline of 30 degrees, from the edge of the blade, leaning to the right, the blade of said square having a slot c at an angle of 70 degrees, another slot c' at an

angle of 60 degrees, both leaning to the right, and near the end of said blade, a slot d of 60 degrees and a slot d' of 70 degrees both leaning to the left.

2. A device to aid in sign painting having a straight side or beam and a right angle blade, said beam side and right angle blade being divided into inches and parts of inches, a row of perforations running vertically through beam of said device one-quarter of an inch apart and numbered alternately 1, 2, 3, 4, etc., a slot a in the upper left hand corner of the device at an angle of 30 degrees in relation to the upper straight edge of the device, leaning to the right, slots in the blade of said device leaning at different angles and in different directions from the base, substantially as shown and described.

In testimony whereof I affix my signature, in presence of two witnesses.

JAMES E. ROBBINS.

Witnesses:

F. W. KOTTMANN,
HARVEY TETEW.