R. B. WEIKEL.

CURVE SCRIBER.

APPLICATION FILED AUG. 5, 1909.

1,053,686.

Patented Feb. 18, 1913.

2 SHEETS—SHEET 1.

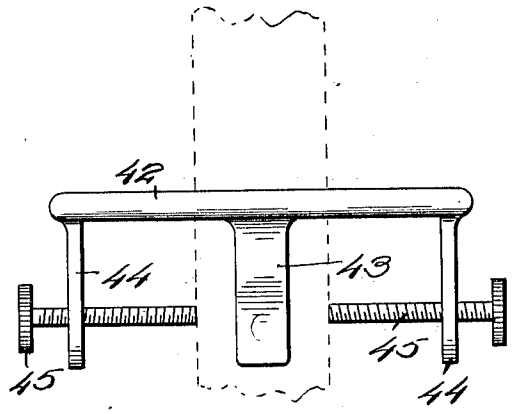

Fig. 2.

Fig. 1.

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2 SHEETS—SHEET 2.

Fig. 4.

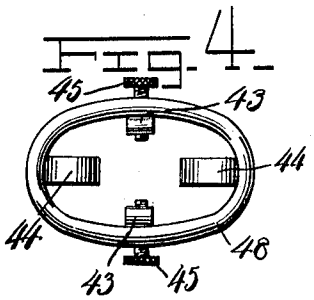

Fig. 3.

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UNITED STATES PATENT OFFICE.

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CURVE-SCRIBER.

1,053,686. Specification of Letters Patent. Patented Feb. 18, 1913.

Application filed August 5, 1909. Serial No. 511,325.

To all whom it may concern:

Be it known that I, ROY BENJAMIN WEIKEL, a citizen of the United States, residing at Milton, in the county of Northumberland and State of Pennsylvania, have invented certain new and useful Improvements in Curve-Scribers, of which the following is a specification.

This invention has relation to certain new and useful improvements in curve scribers.

The object of my invention is to provide a drawing instrument, by means of which an oval having any given major or minor axis may be drawn with ease, accuracy and despatch.

A further object is to provide a curve scriber with an ovaliform resilient pallet, which pallet may be distorted to change its major and minor axis.

A further object is to provide a drawing instrument with a plurality of attachable pallets of different shapes and conformations, in connection with which a marking point is to be brought in contact so that the shapes and conformations of these various pallets may be drawn upon an enlarged scale.

With these and other objects in view, the present invention consists in the combination and arrangement of parts as will be hereinafter more fully described and particularly pointed out in the appended claims, it being understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 shows an elevational view of a curve scriber embodying my invention, Fig. 2 is an enlarged detached detail of one of the pallets, Fig. 3 shows a modification wherein two arms are disclosed, each being arranged to carry a marking point, Fig. 4 is a top plan view of one of the pallets.

In the accompanying drawings, 10 represents the stand which is provided with the slotted foot 11 having a central bore arranged to receive the point 14. This foot is provided with the ears 12 arranged to receive the tightening screw 13 so that this pin 14 may be adjustably clamped within the foot of the instrument. At its upper end, this stand is provided with a socket arranged to receive the threaded end 15 of the head 16, which head is provided with the spindle 17 so arranged as to revolubly hold the sleeve 18, this sleeve being provided with the pin ear 19 arranged to receive the forked end 22 of the arm 21, this arm being pivotally secured to the ear by means of the pin 20. The head 16 as shown, has its edge milled so that the stand may be conveniently held. The arm 21 is provided with two inwardly directed shoulders marked 23 and 24, each having a suitable socket 23′ and 24′ respectively (as shown in dotted lines), and entering these sockets are the set screws 25. As shown, the shoulder 24 extends inward a greater distance than the upper shoulder 23. Adjustably held within the socket of one of these shoulders, is the stem 26 of the runner 27. At its lower end, this arm is forked and carries a pin 28 so as to pivotally receive the joint 29 which at its lower end is provided with a receiving head 30 carrying the adjusting screw 31 so that the stem 32 of the carrier bar head 33 may be securely fixed to the lower end of this joint. This head 33 carries the pin 36 from which extends the carrier bar 35 upon which bar is slidably held the socket head 37 having the clamping screw 34 so that this socket head may be firmly held to the carrier bar. Entering the socket 37′ of this head 37, is the set screw 38, so that the pen or pencil point may be secured to this socket head. In the drawings the pen point is marked 39 and the pencil point 40. These points are of any approved construction.

Secured to the stand 10, are one or more pallets 42 made of any suitable material and these pallets are of an elliptical or other desired form as shown in Fig. 4. Each pallet is provided with two supporting ears 43 which by means of their curvatures engage the stand as shown. Each pallet further carries two screw ears 44 which support the adjusting screws 45 which contact with the stand. As the rims 42′ and 48′ of these pallets are made of resilient material, such as steel, or hard rubber, in advancing the set screws 45, these pallets may be distorted, so that the major and minor axes of the same are changed. The bifurcated end of the runner 27 is slidably engaged upon the rims 42′ or 48′ of the pallet, so that in revolving the sleeve 18, the pen or pencil point is carried in the path of an oval. In the drawings, I have shown the stand as

provided with two pallets marked 42 and 48 of different conformation. The runner 27 is shown as being in contact with the upper pallet 42. Should it be desired to draw a figure conforming to the shape of the lower pallet 48, the operator would release the set screw 23 and place the runner within the lower socket so that the runner would engage with the rim of the lower pallet 48. The ears 43 are made of sufficient flexible material in order that they may be in constant engagement with the stand 10, while the ears 44 are constructed of sufficiently rigid material for sustaining the stress exerted upon the same when the pallets 42 are being adjusted through the action of the screws 45.

Any desired adjustment may be imparted to the pen or pencil point, in that the joint 29 may be carried outward and the carrier bar be given any desired position. The device is further light, neat and simple in construction, and it is of course understood that any desired shape pallet may be secured to the stand.

In the use of the instrument, the head 16 is grasped preferably by the fingers of the left hand, when the arm 21 is rotated about the pallet with the fingers of the right hand.

In the modification shown in Fig. 3, I have provided the collar 18 with two arms marked 21 and 21′, each arm in this modification being arranged to contact with one of the peculiarly shaped pallets. The advantage of this modification resides in the fact that the runner need not be removed from the arm.

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

1. A curve scriber comprising a stand, a spindle mounted upon said stand, a revoluble sleeve mounted on the spindle, a jointed scriber leg pivoted to said sleeve, flexible guides arranged upon said stand, lugs on said guides, regulating screws in said lugs adapted to engage said stand for adjusting the guides, and means on said scriber leg adapted to slidingly engage said guides.

2. A curve scriber comprising a stand, a spindle upon said stand, a sleeve revolubly mounted on the lower end of said spindle, a scriber leg pivoted to said sleeve, a guide on said stand adapted for vertical movement thereon, said guide comprising a flexible rim, said rim being capable of change of form, lugs depending below said rim, regulating screws in said lugs to increase or diminish the major and minor axes of said rim, said screws adapted to engage said stand, arms having sockets therein and formed on said scriber leg, and a detachable finger for engaging the sockets of said arms and having a bifurcated free end adapted for sliding engagement with the rim of said guide.

3. A curve scriber comprising a stand, a detachable cylindrical member secured to the upper end of said stand, a sleeve revolubly mounted on said cylindrical member, a head on the upper end of said cylindrical member for retaining said sleeve, a scriber leg pivotally attached to said sleeve, flexible guides comprising rounded rims and mounted on the stand, means for expanding said guides, lateral extensions on the scriber leg and having sockets formed therein, and a down-turned finger adapted to be secured within said sockets and having a bifurcation on its down-turned portion to slidingly embrace and be guided along said rounded rims.

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

ROY BENJAMIN WEIKEL.

Witnesses:
W. H. Bostian,
E. D. Waters.