S. C. STANLEY.

MACHINE GUN TRIPOD.

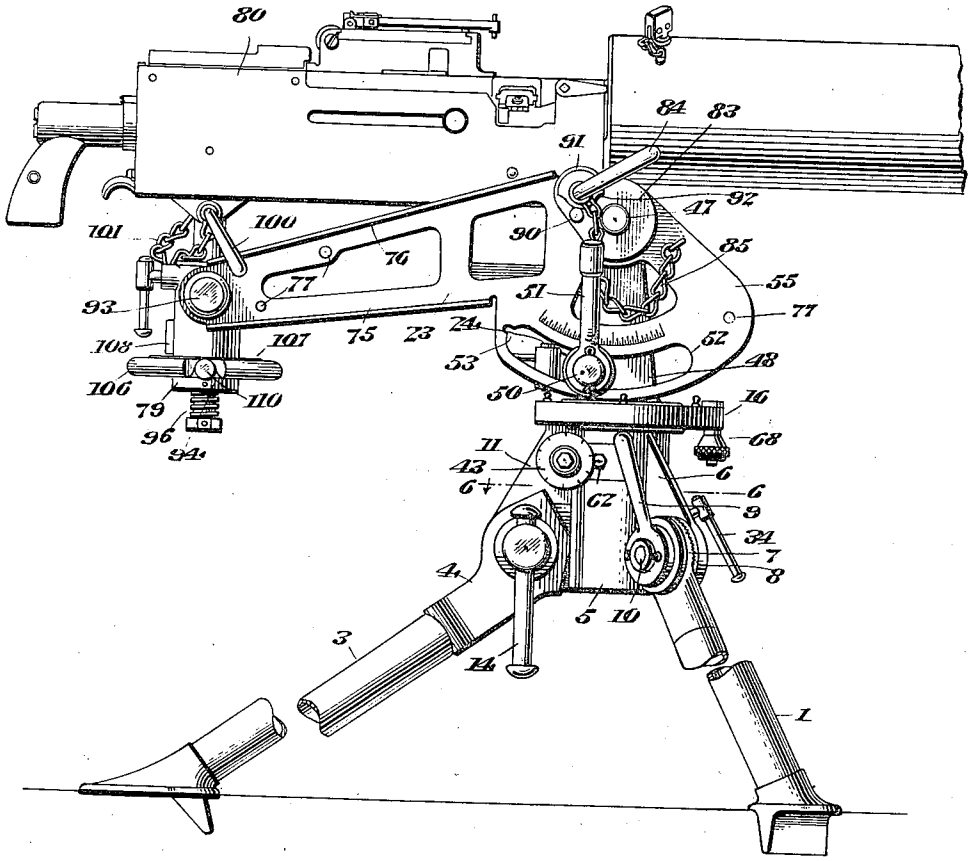
APPLICATION FILED NOV. 15, 1918.

1,335,403.

Patented Mar. 30, 1920.

5 SHEETS—SHEET 1.

FIG 1.



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5 SHEETS—SHEET 2.

FIG 2.

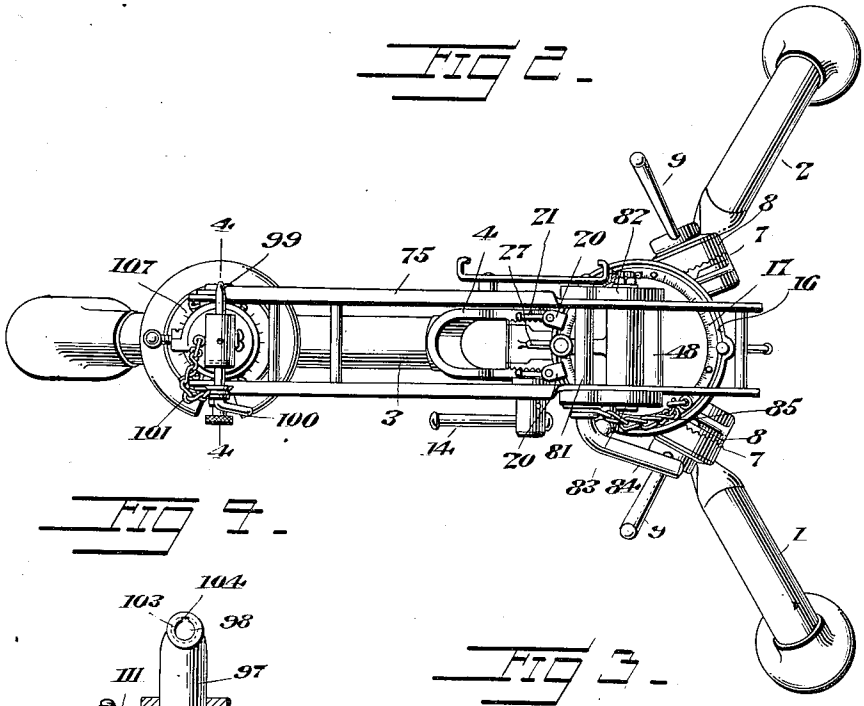


FIG 4.

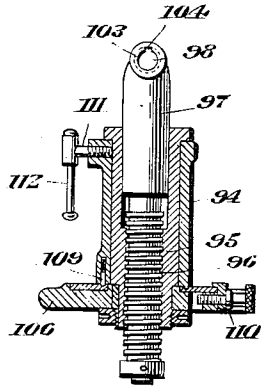


FIG 3.

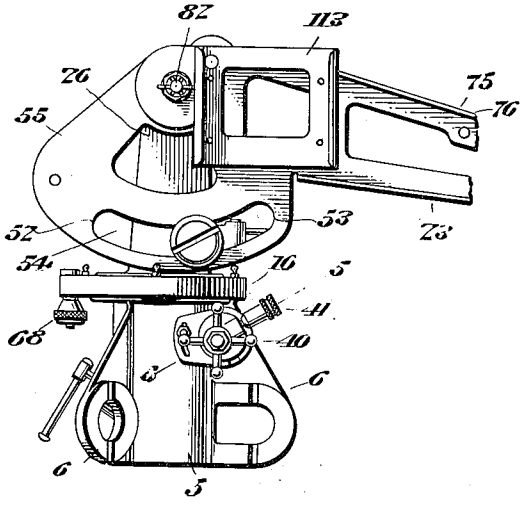
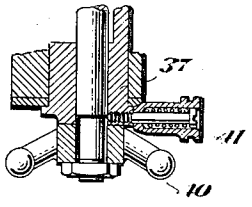


FIG 5.



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5 SHEETS—SHEET 3.

FIG 6.

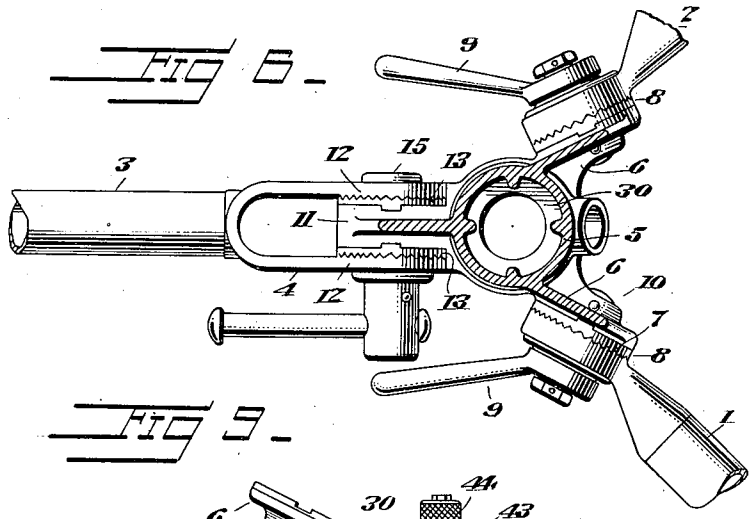


FIG 9.

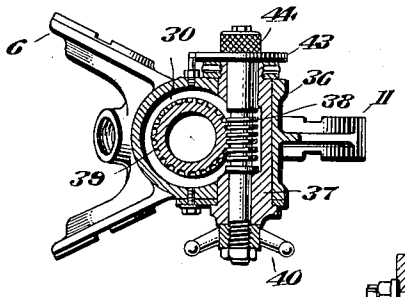


FIG 8.

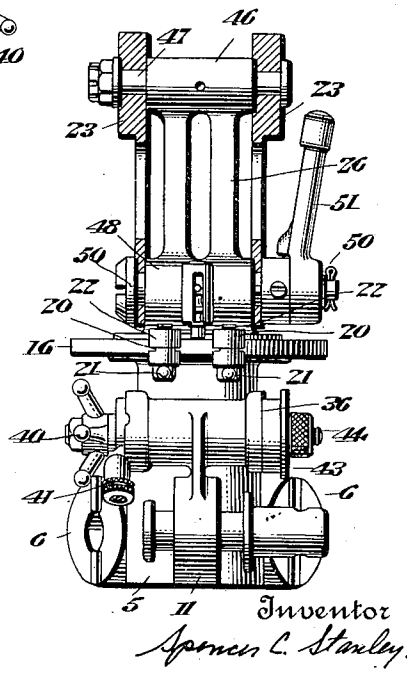
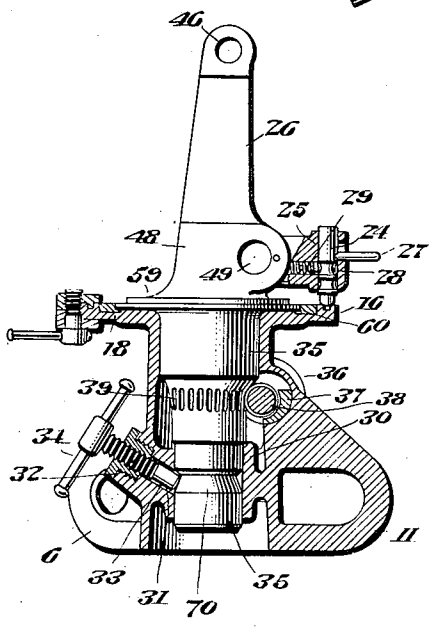


FIG 7.



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MACHINE GUN TRIPOD.

APPLICATION FILED NOV. 15, 1918.

1,335,403.

Patented Mar. 30, 1920.

5 SHEETS—SHEET 4.

FIG 10.

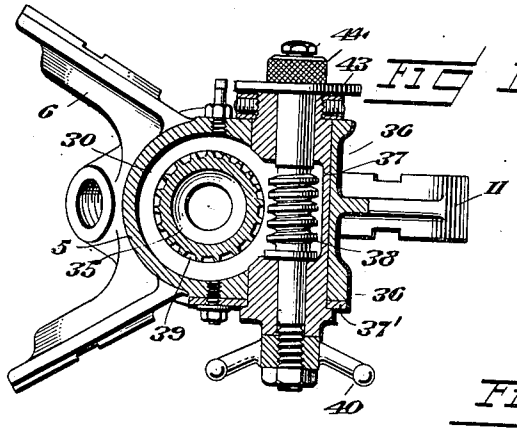


FIG 11.

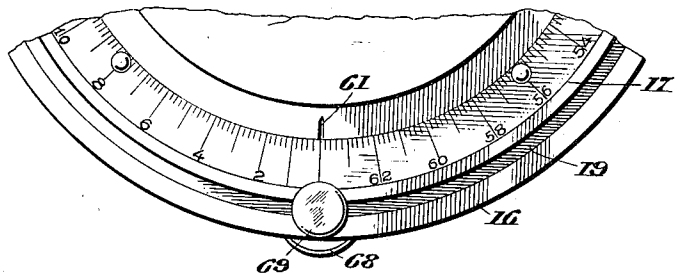
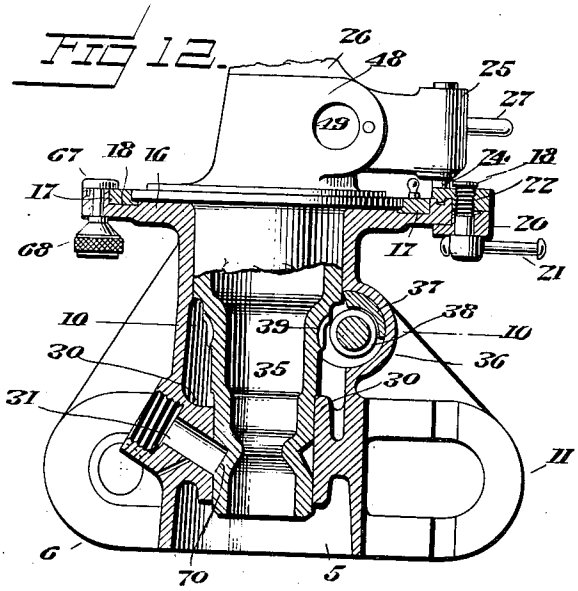


FIG 12.



Inventor

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MACHINE GUN TRIPOD.

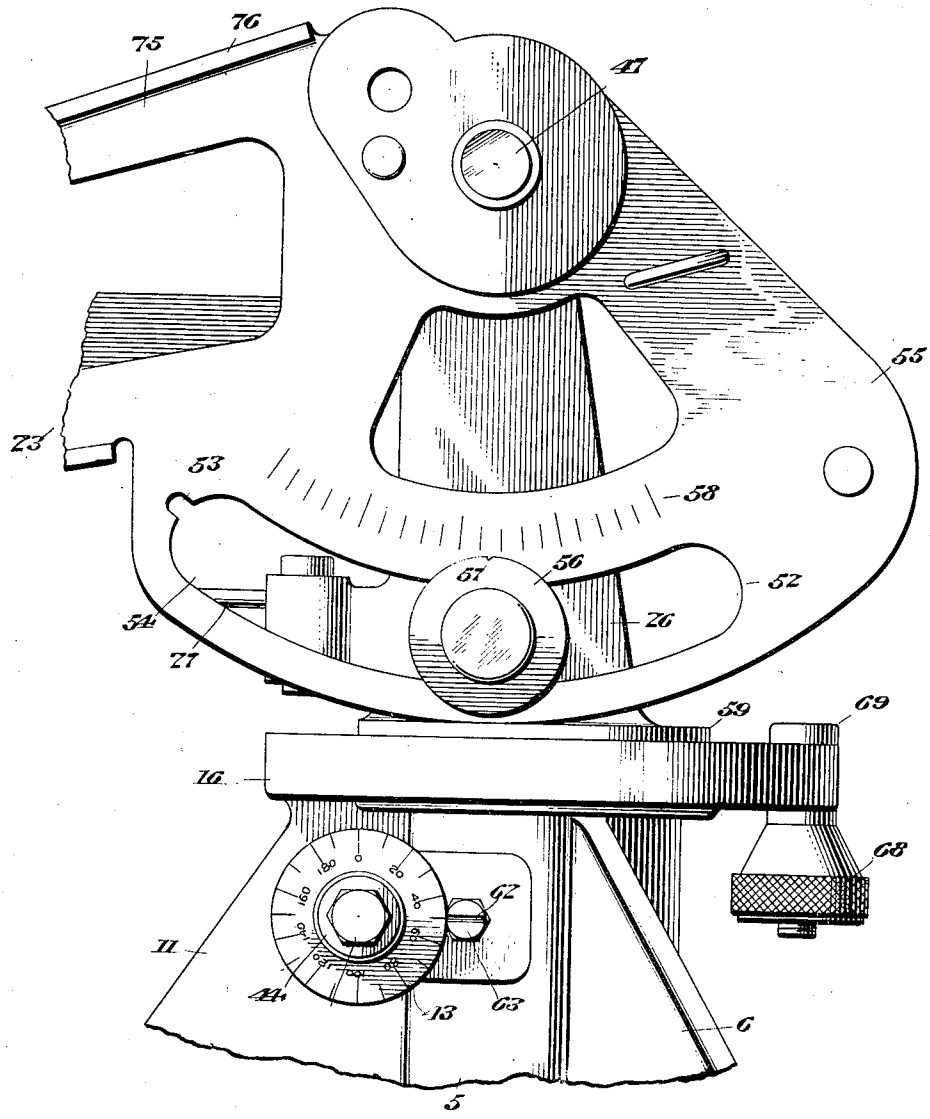
APPLICATION FILED NOV. 15, 1918.

1,335,403.

Patented Mar. 30, 1920.

5 SHEETS—SHEET 5.

FIG 13.



Inventor

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UNITED STATES PATENT OFFICE.

SPENCER C. STANLEY, OF THE UNITED STATES ARMY.

MACHINE-GUN TRIPOD.

1,335,403. Specification of Letters Patent. Patented Mar. 30, 1920.

Application filed November 15, 1918. Serial No. 262,721.

(FILED UNDER THE ACT OF MARCH 3, 1883, 22 STAT. L., 625.)

To all whom it may concern:

Be it known that I, SPENCER C. STANLEY, captain Ordnance Department, U. S. A., a citizen of the United States, stationed at Washington, D. C., have invented an Improvement in Machine-Gun Tripods, of which the following is a specification.

The invention described herein may be used by the Government, or any of its officers or employees in prosecution of work for the Government, or by any other person in the United States, without payment of any royalty thereon.

My invention relates to new and useful improvements in machine gun tripods and especially to a tripod that is adapted to be used for supporting a Browning type of machine gun.

One of the objects of my invention is to provide a tripod that can be quickly and readily set-up and on which the machine gun can be quickly positioned and locked with relation to said tripod.

Another object of my invention is to provide a tripod that is provided with a supporting cradle that is capable of being quickly traversed and elevated when desired.

Still anotner object of my invention is to provide a tripod with a supporting cradle that may be elevated or traversed and provided with means for locking the said cradle in any desired elevated position or any desired traversed position.

Still another object of my invention is to provide a tripod on which the cradle is supported and which cradle may be traversed quickly and in an irregular manner, if desired, or on the other hand means are provided in the form of an eccentrically mounted worm so that the cradle may be traversed slowly and with a regular movement.

Still another object of my invention is to provide a tripod having a socket, attached to which are legs and in which socket a pintle is supported to which pintle a cradle is attached, the attaching means being in the form of an axis bolt so that the said cradle may be traversed by rotating the pintle in the socket or the cradle may be elevated by swinging the same upon the axis bolt.

Still another object of my invention is to provide a tripod having a centrally located socket in which is supported the cradle by means of a pintle, and at the top of the socket and surrounding the pintle a dial is placed which is graduated in mils and free to turn when desired to establish a point of range or note the range of traverse as will be hereinafter more fully described.

Still another object of my invention is to provide a tripod comprising a socket and legs attached thereto and a pintle adapted to fit within said socket and support a cradle which in turn supports the gun. The pintle fits centrally of a graduated dial which is located in the socket and on the periphery of the socket there are two stops that may be locked at any desired points so that the gun may just be traversed between them.

Still another object of my invention is to provide a tripod wherein a supporting cradle may be used for elevating the gun and wherein secondary elevating means are positioned at the rear end of the cradle so that still greater accuracy may be obtained. That is the rear of the gun may be elevated or lowered slightly without changing the prime elevating mechanism.

Still another object of my invention is to provide a gun tripod wherein the gunner after obtaining the desired range may be able to adjust the cradle to suit the command and may at any time be able to tell his traversing range or his elevating range.

Still another object of my invention is to provide a tripod provided with a cradle that is capable of being traversed and elevated wherein a traversing dial is placed at the top of the supporting socket and wherein a further vernier dial is used so that the gun may be aimed with the greatest of accuracy.

With these and other objects in view my invention consists in certain new and novel features and combinations of parts as will hereinafter be more fully described and pointed out in the claims.

Figure 1 is a side elevation of my improved mount with a portion of the Browning gun shown mounted thereon.

Fig. 2 is a plan view of the same with the gun removed.

Fig. 3 is a side elevation of a portion of the socket and cradle, the view being from the left side of the mount.

Fig. 4 is a sectional view on line 4—4 of Fig. 2, the supporting post being turned for the sake of clearness.

Fig. 5 is a sectional view taken on line 5—5 of Fig. 3.

Fig. 6 is a horizontal sectional view on line 6—6 of Fig. 1 in the direction of the arrows.

Fig. 7 is a view partly in elevation and partly in section showing the supporting pintle and the socket for receiving the same.

Fig. 8 is a rear view in elevation of the socket, a portion of the cradle being shown in section.

Figs. 9 and 10 are sectional views taken on line 10—10 of Fig. 12, Fig. 9 showing the worm in mesh with the supporting pintle and Fig. 10 being an enlarged view showing the same out of mesh with the pintle.

Fig. 11 is a fragmentary plan view of the traversing dial.

Fig. 12 is an enlarged view of the socket and a portion of the pintle, the lower portion being broken away for the sake of clearness; and

Fig. 13 is an enlarged side elevation of a portion of the cradle and the dial of the traversing eccentric.

Referring now to the drawings it will be seen that the tripod is made of four major parts, first the legs, second the socket, third the pintle and fourth the cradle.

The front legs 1 and 2 are similar in construction and are preferably made from tubing and having shoes brazed at the one end and a joint brazed at their inner ends. The rear leg 3 also has a shoe brazed at its outer end and the upper portion of the leg is bifurcated as at 4.

A socket 5 is shown to which the three legs are connected, this socket being provided with two outwardly extending wings 6 in the front portion to each of which are connected the front legs 1 and 2, the inner ends of the legs being serrated as at 7 and serrating disk 8 being secured to said wings to coöperate with the serrations of the legs, 1 and 2. A jamming handle 9 is also provided on each of the front legs which operates on the bolts 10 so that the legs may be quickly set up and jammed in their desired position by simply turning the handles 9.

A projection or lug 11 is provided at the rear of the socket which is designed to pass between the bifurcated ends of the rear leg 3, and serrations 12 are also provided on the upper ends of the leg coöperating with serrating disks 13 on the bifurcated ends, and a jamming handle 14 operating on the bolt 15 is also provided to likewise jam this lug in its set position.

An important feature of the present invention is the construction of the socket and its coöperating parts.

This socket 5 as already mentioned has two outstanding wings 6 and a rearwardly extending lug 11 near its lower portion to which the legs are secured, and provided at the upper portion of the socket is the enlarged circular portion 16 as shown in section in Fig. 7. Fitting within the large circular portion is a dial 17 which fits in the grooved portion 18 so that the said dial will be flush with the upper portion of the circular portion 16. There is also provided a circular channel 19 in which fit the stops 20 which are tightened by the turning of a handle 21 which clamps the two portions of the stops together by means of the bolt 22.

These stops may be placed anywhere around the periphery of the large circular portion 16 and as shown in Fig. 2, they are designed to limit the traverse of the cradle 23 which will be hereinafter referred to. This limiting movement is accomplished by the use of the pin 24, Fig. 7, which is set in a housing 25, which housing is secured to the supporting bracket 26, hereinafter to be referred to. This pin 24 has the extending grasping pin or handle 27 and said pin 24 has a plurality of depressions 28 located one above the other in which is forced a small spring pressed pin 29. When the grasping pin 27 is raised the pin 24 will be elevated above the tops of the two stops 20 and will be held there by the spring pressed pin fitting within one of the depressions, or, when the grasping pin or handle is forced downwardly this pin 24 will only move within the limits set by the two stops 20.

Formed in the lower portion of the socket 5 are the inwardly extending walls 30 which in turn are circular to form a reduced opening in said socket. Located in the front portion of this circular wall is the opening 31 for the reception of the locking pin 33 and it is enlarged near the outer surface for a bushing 32. This locking pin 33 is provided with a handle 34 so that the locking pin or bolt may jam against the lower portion of the pintle 35, hereinafter to be more fully described.

Extending across the rear of the socket is a housing 36 which is connected with a wing to the aforementioned lug 11. This housing 36 is provided with a bearing 37 extending the entire length of said housing in which is eccentrically mounted a worm 38 which coöperates with the teeth 39 formed on the pintle 35.

In Fig. 9 is shown the eccentrically mounted worm in its coöperative position with the teeth 39 of the pintle and in Fig. 10 the same is thrown to the inoperative position.

For throwing the eccentrically mounted

worm into and out of position with the pintle 35 a knurled button 41 (Fig. 5) is secured near the outer end of the bearing 37, which button is always held under tension and is tapered at its lower end. On the outer portion of the housing 36 are formed depressions so that this button must be first pulled out of one and then forced say upwardly to the last depression which will throw the worm and gear teeth of the pintle out of mesh. The bearing and worm will be retained in this position as the tapered inner end of the button will have now slipped within the depression in the housing. To throw the worm into mesh the operation is just reversed.

It may be mentioned at this time that the purpose of this "throw-off" worm 38 is so that the cradle and gun may be traversed or quickly swept by hand through any arc, or if it is desired to sweep through an arc in an even manner the eccentrically mounted worm will be thrown into mesh with the pintle and the handle 40 then slowly turned so that the worm will revolve the pintle, cradle and gun in a slow and even manner.

It is to be noticed that the bearing 37 within the housing that supports the eccentrically mounted worm is also secured in a plate 37′ which is provided with a slot and holding screw which plate may be slightly revolved thereby carrying the bearing 37, etc., so that when the machine is first set-up the limits of engagement, or in disengagement of the worm and pintle, may be definitely and accurately determined, providing for any inaccuracies that may occur in dimensions when the tripod is manufactured.

Located on the opposite end from the handle of the worm is the graduated dial 43 that is held in position by the nut 44 and a pin 62 is shown with an index line 63. The dial is graduated in mils so that a final adjustment of traverse may be carried out. In other words, the traverse may be reckoned from the horizontal dial plate 17 and a movement of one mil may be secured by turning the handle 40 while reading the vernier dial 43.

Referring now to the pintle 35, it will be seen that the same is provided at its upper portion with bracket arms 26 which are formed integral with a bearing pin 46 in which is supported the axis bolt 47 which bolt also passes through openings in the forward end of the cradle 23. The lower portions of these bracket arms are also provided with an enlarged base portion 48 which is provided with an opening 49 through which is designed to pass a pin 50, which is provided with a jamming handle 51 so that the cradle may be tilted on the axis bolt 47 and locked by means of the jamming handle 51 in its set position. That is, it may be locked between the two limits 52 and 53 which are the ends of the slot 54 cut in two quadrant plates 55 formed integral with the cradle 23. On one end of the bolt pin 50 is a disk 56 provided with the notch 57 and the quadrant plate 55 is graduated as at 58 so that elevation of the cradle may be quickly and readily determined.

The base 48 of the bracket arms widens out as at 59 and is again enlarged slightly forming the supporting head 60, it being such that it slightly overlaps the lower portion of the dial 17 so that the same will be held from accidental removal.

An index line 61 is formed on the head 60 which line is exactly at 90 degrees to the cradle.

It might be mentioned at this time that a clamp 67 extends through the top of the socket 5, which clamp is provided with a knurled nut 68 and with a protruding head so that the dial may be clamped in any position to which it is rotated.

The pintle member 35 is of sufficient diameter or circumference to fit snugly within the walls of the socket, so that the head portion 60 will be supported by the enlarged portion 16 of the socket.

A portion of the pintle is pressed inwardly as at 70 so that the locking pin 33 has a maximum of contacting surface therewith when forced into engagement with the same.

Referring now to the cradle 23 for the moment it will be seen that this consists of the two quadrant plates 55 hereinbefore referred to and the rearwardly extending arms 75 which may be flanged as at 76 or strengthened in any way desired. Three brace rods 77 are also provided that connect the two arms and quadrant plates of the cradle. Pivoted securely at the rear ends of the two side arms 75 of the cradle is an elevating mechanism 79 so that the rear portion of the machine gun 80 may be raised or lowered with great accuracy without changing the horizontal axis of the cradle.

Two reinforcing plates 82 and 83 are secured to the cradle at the upper portion of the quadrant plates and are provided with an opening so that the axis bolt 47 may pass through these reinforcing plates as well as the arms 75 of the cradle. Another opening is properly positioned in these plates so that a pin 81 may pass therethrough when the gun is to be locked to the cradle.

Referring now to Fig. 1, it will be seen that the gun rests in the cradle and is secured to the same by passing a pin 81 through the arms of the cradle and through the openings last referred to in the reinforcing plates and then through the lugs formed at the bottom of the machine gun. This pin 81 is provided with a handle 84 that is secured by the chain 85 to the cradle to prevent the loss of the same.

A pin 90 is also attached to one of these plates 82—83 and provided with an enlarged head leaving a slight space between the head and the plate and the pin 81 is provided with a disk 91 that will fit behind the enlarged head of the pin 90. This disk is partly broken away as at 92 so that the said pin 81 can not be removed from its position holding the gun until the handle 84 is swung to a position wherein the removed portion of the disk comes opposite the enlarged head when it is then possible to remove said pin 81 to remove the gun.

Referring now to the elevating mechanism 79 for the present, it will be seen that as before mentioned it is securely pivoted in the rear of the cradle arms by the trunnions 93 carried by a housing 94.

This elevating mechanism may be of any desired type although I have shown a form that has proved effective in service and operation; specifically it consists of a main housing 94 provided with heretofore mentioned trunnions 93 and an inner bearing member 95 which is provided with threads to coöperate with a screw 96, which screw is provided at its upper end with a bearing post 97, with a laterally extending opening 98 formed therein for the reception of the pin 99 that is provided with a handle 100 and held to the post 97 by a chain 101. The purpose of this bearing post 97 and the pin 99 is, that when the gun is placed on the cradle the pin 99 may be passed through openings in lugs on the bottom of the gun 80, and through the openings 98.

I have also shown one means of preventing the pins from becoming disengaged from the gun and cradle which consists in providing a spline or key-way 104 in the post 97 and a circumferential groove 103. The pin 99 is also provided with a small lug so that when the pin is inserted the lug must first register with the key-way 104 and the handle may then be turned to force the lug in said groove and it will therefore be impossible to remove the pin until the handle is again forced upwardly and the lug registering with the key-way 104.

To raise or lower the screw 96 a wheel 106 is secured to the bearing 95 so that when the wheel is turned the bearing 95 will also turn and coöperating with the screw will raise or lower the same according to the direction in which said wheel is turned.

The wheel 106 is provided with a dial 107 which is graduated in mils and an index lug 108 is formed on the housing member 94. A small spring pressed pin 109 contacts with the dial which is provided with a depression at every graduation so that a turning of the wheel for the distance of one mil will cause a slight click by the pin 109.

The dial 107 may be secured by the screw 110 so that it may be turned with the wheel or by loosening this screw it may be turned so that zero may be placed opposite the index 108 and then the same clamped in position.

Means are also shown for clamping the bearing 95 in a set position comprising a simple locking pin 111 provided with a handle 112.

To cause the rear of the gun to be elevated or lowered on the axis bolt as a pivot it is simply necessary to loosen the handle 112 and turn the wheel 106. The dial may be set with the zero opposite the index point so the amount of elevation may be quickly and readily seen by the graduations coming opposite the index lug 108 as the wheel and dial are turned.

A bracket 113 is shown in Fig. 3 screwed to one side of the cradle for the reception of the ammunition box.

A description of the setting up of the tripod and the manner in which it is used is as follows:

Supposing now it is desired to set up the tripod and assuming that the pintle 35 is in the socket 5. The front legs and the rear legs are placed in their desired out-spread position and the jamming handles 9 turned so that the upper ends of the legs will be tightly locked with regards to the socket. The cradle 23 may then be tipped by grasping the rear end thereof, the cradle pivoting about the horizontal axis bolt 47, and after the desired approximate elevation is reached, the jamming handle 51 is then forced to the front and the cradle will thereby be locked in set position.

The gun is then placed in position on the cradle and the securing pin 81 is passed through the reinforcing plates, 82 and 83 and the cradle arms, and the handle 84 forced downwardly so that the disk 91 will come behind the head of the pin 90 thus preventing the securing pin from accidental removal. The machine gun is provided with two projecting lugs that are designed to straddle the bearing or post 97 and the securing pin 99 is then passed through these lugs and post, the small lug first registering with key-way 104. After the pin has been passed through the respective parts the handle 100 is then forced downwardly thereby locking the machine gun is position.

Now if the gun is to be fired from this position and it is desired to traverse the same the locking pin 33 is forced inwardly so that it will bear tightly against the pintle and the gun and cradle will now be held against any traversing movement.

Supposing now it is desired to have the gun and cradle so that the same may be traversed rapidly while being fired and supposing that the eccentrically mounted worm 38 is in mesh with the teeth 39 formed on the pintle 35; the knurled button 41 will be

pulled out of the depressions formed in the housing 36 and the button 41 should then be forced upwardly which in turn will throw the eccentrically mounted worm out of mesh with the teeth on the pintle 35 as shown in Fig. 10 and the gun and cradle may then be traversed at will and as rapidly or as slowly as desired.

If, on the other hand, it is desired to traverse the gun in a slow and even manner the knurled button 41 will be pulled slightly outwardly and forced downwardly in the position shown in Fig. 8 when the eccentrically mounted worm 38 will be thrown into mesh with the pintle 35, and by turning the handle 40 the worm 38 will be revolved which in turn will slowly turn the pintle on which the gun is mounted.

Supposing now for the moment that it is desired to traverse the gun between certain limits, the grasping pin 27 is forced downwardly so that the pin 24 will extend downwardly as far as possible and the stops 20, Fig. 8 may be set around the dial 17 any number of mils; the gun may then be traversed the distance between these two stops as the traversing movement will be limited by the contacting of the pin 24 with either one of the stops 20. This traversing movement may be a quick sweeping movement by throwing the eccentrically mounted worm out of mesh or it may be a slow even movement as before by simply throwing the eccentrically mounted worm into mesh and revolving the handle 40.

Supposing now it is desired to fire the gun at a certain object that is not visible, as is well known, the gun is first sighted at some auxiliary point which may be a tower or tree and the dial 17 is then turned so that the zero will come opposite the index line 61. The clamp 67 is then operated to lock the dial in this position and the commanding officer will then figure out the degrees from the auxiliary aiming point to the object, translate the same and will give an order to traverse (for illustration) 3600 mils. The gun will then be traversed until the index line 61 comes opposite the 3600th mil and the gun may then be locked by the pin 33, if desired, and fired from this point.

If it is desired (for illustration) to traverse 400 mils in either direction the grasping pin 27 will be forced downwardly and the cradle and the head with the index line 61 will be swung until the index line has traveled 400 mils, the clamp 20 will then be placed against the pin 24. The gun will then be traversed 400 mils in the opposite direction from the 3600th mil and when the index line 61 has traveled the 400 mils the other clamp 20 will be placed up against the pin 24 and the stop clamped to the socket and the gun now may be traversed 400 mils in either direction from the 3600th mil.

Also if the traversing worm is in mesh with the pintle 35 and it is desired to watch more closely the amount of traverse the graduated vernier dial 43 may be turned so that the zero will come opposite the index line 63 and as the handle 40 is turned the vernier dial may be read.

With regard to the rear elevating mechanism, if it is desired to elevate or lower the gun slightly about the axis bolt 47 as a pivotal point the rear wheel 106 may be operated, the dial 107 being first moved until the zero comes in front of the index pin 108, by then turning the wheel 106, the vertically extending screw 96 will be elevated or lowered as desired and the number of mils may be determined by watching the dial as it passes the index lug 108.

It is to be understood that a spirit level is placed on the top of the gun so that the gun may be set in a level position and by having a floating zero or a dial free to turn, the zero can be set opposite the index lug and the amount of elevation determined from any point.

Of course, if greater elevation is desired than is possible to obtain by the rear elevating mechanism the jamming handle 51 will be pulled downwardly and the rear of the cradle pushed downwardly any desired number of points.

From the foregoing it will be seen that I have designed a tripod that may be quickly and readily set up and one which is capable of numerous adjustments both as to elevation and as to traversing and wherein the range of traverse may be seen at all times, in fact by providing the stops, limits of traverse may be carefully and quickly adjusted; also the elevating mechanism is capable of very fine adjustments and may be quickly set up or changed when desired.

It will be understood that many slight changes may be made in a number of the parts without in any way departing from the spirit or scope of the invention.

Having thus described my invention what is claimed as new and desired to secure by Letters Patent is:

1. A tripod gun mount comprising a socket, legs connected to said socket, a pintle fitting within said socket and having an enlarged head supported by said socket, the lower portion of said socket being reduced and the lower portion of said pintle being reduced to fit snugly within the reduced portion of said socket; the said pintle provided with vertically extending arms and a cradle pivotally mounted on said arms, the said cradle having a graduated scale marked thereon and means mounted on said pintle arms to coöperate with the graduated scale to show the movement of said cradle with regard to said means and means for locking the cradle in a predetermined set position.

2. A tripod gun mount comprising a socket provided with a plurality of outstanding wings, legs pivotally connected to said wings, the socket being reduced in its lower portion and enlarged at its upper portion to form cylindrical bearings, a pintle having an enlarged upper portion and reduced lower portion to fit within the enlarged and reduced portions of said socket, and means for locking the pintle against rotation.

3. A tripod gun mount comprising a socket provided with a plurality of outstanding wings, legs pivotally connected to said wings, the socket being reduced on its lower portion and enlarged at its upper portion to form spaced cylindrical bearings, a pintle having an enlarged upper portion and reduced lower portion to fit within said cylindrical bearings and a locking means passing through said lower bearing for locking the pintle against rotation.

4. A tripod gun mount comprising in part a socket, legs pivotally connected to said socket, said socket provided with an enlarged upper portion and the lower portion of said socket having a reduced cylindrical opening formed thereon, a pintle provided with an enlarged head adapted to be supported in upper portion of said socket and a reduced portion having a bearing-fit in said cylindrical opening, a graduated dial rotatably mounted in said socket, an index line on said pintle to thereby determine the rotation of the pintle with regard to the socket.

5. A tripod gun mount comprising in part a socket, legs pivotally connected to said socket, a dial rotatably mounted in the head of said socket, a pintle mounted within said socket centrally of said dial having an enlarged head adapted to partially overlap said dial, a cradle mounted on said pintle for supporting a machine gun, said pintle having an index marked thereon to determine its rotation with regard to said dial and socket and means for locking the pintle against rotation.

6. A tripod gun mount comprising in part a socket, said socket being enlarged at the upper portion thereof and a dial rotatably mounted in the upper portion of said socket and means for holding the said dial against rotation, stops movably mounted on the periphery of the upper portion of said socket and means for locking the stops against movement.

7. A tripod gun mount comprising in part a socket, the upper portion of said socket being enlarged and a dial rotatably mounted in the enlarged portion of said socket, the lower portion of said socket being reduced and said reduced portion provided with an angular opening therein, a pintle adapted to fit within said socket and means extending in said opening in the reduced portion of said socket to lock the pintle against rotation.

8. A tripod gun mount comprising in part a socket with a plurality of outstanding wings for the reception of the upper ends of the supporting legs, the said socket being enlarged at the upper portion thereof and circular walls formed within the socket to provide a reduced opening, a pintle fitting within said socket and provided with a supporting head and with a reduced lower portion adapted to fit within the reduced portion of said socket, a dial rotatably mounted in the enlarged head portion of the socket and the supporting head resting on a portion of the dial to prevent the removal of the same.

9. A tripod gun mount comprising in part a socket, a pintle fitting within said socket, a cradle carried by said pintle, said pintle provided with a plurality of teeth and means mounted on said socket for coöperating with said teeth to thereby revolve the pintle when said means are revolved, a dial rotatably mounted in the upper portion of said socket, and means passing through said socket and contacting with said dial to hold the same against rotation.

10. A tripod gun mount comprising a socket, legs pivotally connected to said socket, a pintle fitting within said socket and a cradle supported by said pintle, said pintle provided with a plurality of teeth and means mounted within said socket to be thrown into and out of mesh with said teeth so that the pintle may be revolved by said means and may be revolved directly when said means and teeth are out of mesh.

11. A tripod gun mount comprising a socket, legs connected to said socket, a pintle fitting within said socket, a cradle supported by said pintle and capable of a tilting movement with regard to said pintle, a worm eccentrically mounted in said socket, said pintle provided with teeth and said worm coöperating with said teeth when said eccentrically mounted worm is thrown into mesh therewith to thereby revolve the pintle, and said pintle free to rotate by a swinging of said cradle when said eccentrically mounted worm is thrown out of mesh with the teeth of said pintle.

12. A tripod gun mount comprising a socket, legs connected to said socket, a rotatable pintle fitting within said socket and a cradle supported by said pintle, a worm eccentrically mounted in said socket, said pintle provided with a series of teeth, said worm adapted to coöperate with said teeth on said pintle when the worm is thrown into mesh with said pintle and means for holding the worm in mesh with said pintle.

13. A tripod gun mount comprising a socket, legs connected to said socket, a pintle fitting within said socket and a cradle supported by said pintle and capable of a tilting movement with regard to said pintle, a housing formed in said socket, a bearing in said socket and a worm eccentrically mounted in said bearing, teeth provided on the pintle to coöperate with said eccentrically mounted worm when said eccentric is thrown into coöperative position therewith, means for holding the worm in said position, and said means when rotated also adapted to hold said eccentrically mounted worm out of coöperative position with the teeth on said pintle so that the cradle may be freely traversed by hand.

14. A tripod gun mount comprising a socket, legs connected to said socket, a pintle fitting within said socket and a cradle supported by said pintle and a dial rotatably mounted in the head of said socket and means for clamping the dial in any desired position, said pintle provided with a plurality of gear teeth and an eccentrically mounted worm in said socket to be thrown into and out of operation with said teeth to thereby revolve the pintle in an even manner by said worm when the worm and teeth on the pintle are in mesh, said cradle capable of being traversed quickly when said eccentrically mounted worm is out of mesh with the teeth on said pintle and means for locking the pintle against rotation.

15. A tripod gun mount comprising in part a socket, a housing extending laterally of said socket and a bearing within said housing, a worm eccentrically mounted in said bearing and means connected to said bearing to establish the forward and rearward limits of the eccentrically mounted worm when thrown into and out of position.

16. A tripod gun mount comprising in part a socket, a pintle fitting within and supported by said socket, said pintle provided with gear teeth around its circumference, a housing formed in said socket and extending across the rear thereof, a worm eccentrically mounted in said housing and adapted to be thrown into and out of mesh with the teeth on said pintle and a graduated dial on the outer end of said eccentrically mounted worm to designate the amount of rotation of said pintle when the eccentrically mounted worm is rotated.

17. A tripod gun mount comprising a socket, legs connected to said socket, a pintle having gear teeth formed thereon fitting within said socket and a cradle supported by said pintle and capable of a tilting movement with regard to said pintle, means for determining the amount of tilting movement, a dial mounted in said socket and an index line formed on said socket so that the amount of rotation of the pintle may be determined, a worm eccentrically mounted in the socket coöperating with the teeth formed on the circumference of the pintle and a vernier dial mounted on said worm to more accurately determine the amount of rotation of said pintle.

18. A tripod gun mount comprising a socket, legs connected to said socket, a pintle fitting within said socket, a cradle supported by said pintle and capable of a tilting movement with regard to said pintle, said pintle being provided with an index line on the head thereof, a graduated dial mounted in said socket so that the traverse of the cradle and rotation of the pintle may be determined, means adapted to be thrown into coöperation with said pintle to rotate the same and provided with a vernier dial so that the rotation of the pintle may be more accurately determined, means for locking the pintle against rotation and means for locking the cradle against a tilting movement.

19. A tripod gun mount comprising a socket, legs connected to said socket, a vertically adjustable pintle fitting within said socket and a cradle supported by said pintle, stops movably mounted on the upper portion of the socket and a pin mounted on said pintle, the traverse of the cradle being limited by the position of the stops when the pin is pressed downwardly.

20. A tripod gun mount comprising a socket, legs connected to said socket, a pintle fitting within said socket having a horizontally extending bracket, a cradle supported by said pintle, a vertically extending pin adjustably mounted in said bracket and movable stops adapted to be clamped around the periphery of the socket, the rotation of said pintle being determined by the position of said stops when said pin is pushed to its lowermost position.

21. A tripod gun mount comprising in part a socket, a pintle mounted within said socket and supporting a cradle, a graduated dial rotatably mounted in the head of said socket and means for clamping the dial in a set position, clamping stops movably mounted on said socket and a movable pin mounted on said pintle and adapted to be raised when desired to freely swing the cradle and adapted to be forced downwardly to limit the traversing movement of the cradle between the set position of the stops.

22. A tripod gun mount comprising in part a socket having an enlarged supporting head, a pintle provided with an enlarged head fitting snugly within said socket and supported thereby, means for locking the pintle against rotation, means for rotating the pintle in a slow and even manner and means for limiting the traverse of the cradle

between any two desired points, said means adapted to be thrown out of coöperative position with the limiting means so that the traversing cradle may be rotated through a complete circle.

23. A tripod gun mount comprising a socket, legs connected to said socket, a pintle fitting within said socket, a cradle supported by said pintle and capable of a tilting movement with regard to said pintle and means for locking the cradle in a desired set position with regard to the pintle, means mounted on the socket to be thrown into coöperative position with the said pintle to rotate the same in a slow and even manner and to be thrown out of coöperative position with said pintle when it is desired to traverse the cradle freely, means for locking the pintle against rotation and means for limiting the amount of traverse of the cradle and rotation of the pintle between any two desired set points.

24. A tripod gun mount comprising a socket, legs supporting said socket, a pintle rotatably mounted in said socket, having an index line thereon, a dial surrounding said pintle so that the amount of rotation of said pintle may be determined, an eccentrically mounted worm in said socket adapted to be thrown into coöperation with said pintle to rotate the same, a vernier dial connected with said worm, a cradle mounted on a horizontal axis in said pintle, the forward end of said cradle being in the form of quadrant plates, said plates provided with graduations so that the elevating and lowering movement may be readily ascertained, means for clamping the said quadrant plates to thereby clamp the cradle in any predetermined set position, means for locking a machine gun in said cradle, said gun capable of also being elevated on its transverse horizontal axis, means for elevating or lowering the rear of the gun with respect to the rear of the cradle and means for determining the amount of lowering and elevating movement.

25. A tripod gun mount comprising a socket, a pintle supported in said socket and a cradle pivotally mounted on said pintle, the cradle comprising two arms, the forward end of said arms being in the shape of a quadrant, said quadrants provided with an arcuate slotted portion and means passing through said slots to limit the tilting movement of said cradle and for locking the cradle in a set tilted position with regard to the pintle, an elevating means pivotally connected to the rear ends of the cradle arms and adapted to support the rear end of the machine gun, the said elevating means having an index point thereon and a rotatable wheel provided with a dial therein so that the elevating and lowering movement of the rear of the gun may be readily determined.

26. A tripod gun mount comprising a socket, legs supporting said socket, a pintle fitting within and supported by said socket, a cradle tiltably mounted on said pintle, elevating means pivotally mounted in the rear of said cradle, means for locking the elevating means against movement, means for determining the amount of elevating and lowering movement when said elevating means is operated, means for locking the cradle against rotation and means adapted to pass through the rear elevating means for locking a machine gun in said cradle.

27. A tripod gun mount comprising in part a cradle, elevating means pivotally mounted at the rear of the cradle, said elevating means comprising a housing, a bearing rotatably mounted in said housing and a vertically extending screw in said bearing and coöperating therewith, a wheel connected to said bearing to elevate said screw in said bearing and a dial rotatably mounted in said wheel, an index line formed on said housing to determine the amount of upward and downward movement of said screw when said wheel is rotated.

28. A tripod gun mount comprising in part, an elevating means, said means comprising a housing, a bearing in said housing and an elevating screw operating within said bearing, a wheel connected to said bearing and a dial rotatably mounted in said wheel, means for clamping the dial in a set position to determine the amount of movement of said screw, means coöperating with said dial to provide a clicking when said wheel is operated and means for locking the wheel against rotation.

29. A rear elevating mechanism for a gun tripod comprising a housing pivotally mounted in a cradle, an index line directly in the rear of said housing, a bearing fitting within said housing and a screw coöperating with said bearing and adapted to be raised and lowered with respect thereto, a wheel for operating said bearing to raise and lower the screw and a dial rotatably mounted in said wheel and means for clamping the dial in any set position so that the dial may be set at zero independent of the relation of the height of the screw in the bearing so that the elevating and lowering movement may be determined from any point.

SPENCER C. STANLEY.