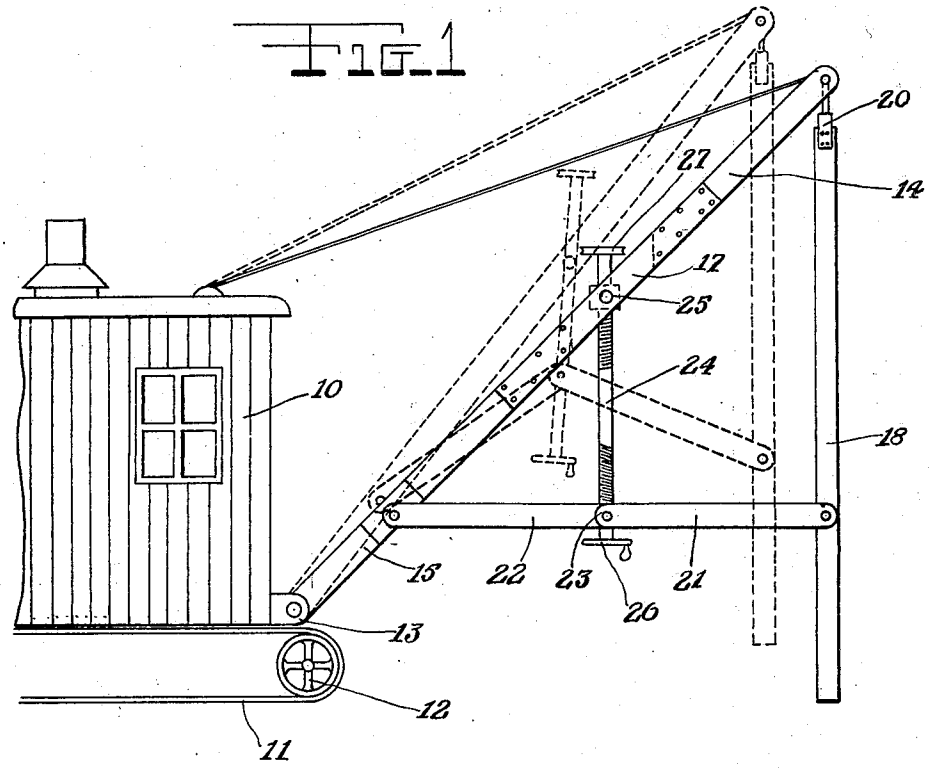
Feb. 18, 1930. L. PIERCE 1,747,389

ADJUSTABLE PLUMBING BEAM FOR PILE DRIVERS

Filed Dec. 6, 1927

FIG. 1



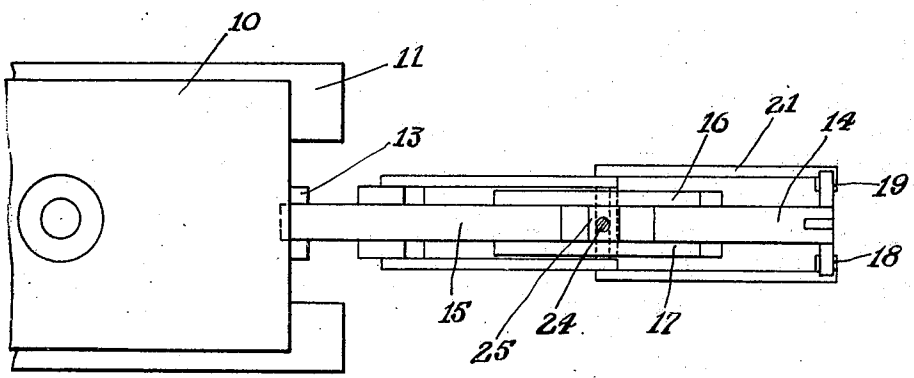


FIG. 2

INVENTOR
Leon Pierce

BY J. Lederman

ATTORNEY

Patented Feb. 18, 1930 1,747,389

UNITED STATES PATENT OFFICE

LEON PIERCE, OF NEW YORK, N. Y.

ADJUSTABLE PLUMBING BEAM FOR PILE DRIVERS

Application filed December 6, 1927. Serial No. 238,020.

The main object of this invention is to provide an adjustable plumbing beam which is suitable for use on caterpillar cranes for pile drivers or similar other machines in which leads are suspended from a boom, the adjustable plumbing beam being used to rigidly secure the leads in vertically suspended position so that they will not shift or be inadvertently dislocated.

Another object of the invention is to provide an adjustable plumbing beam which is adapted to retain leads suspended from a boom in aligned position and has means provided therewith by which the plumbing beam may be adjusted to various positions to permit adjustment of the leads.

The above and other objects will become apparent in the description below in which characters of reference refer to like-named parts in the drawing.

Referring briefly to the drawing, Figure 1 is a front elevational view of the adjustable plumbing beam showing the same in two positions.

Figure 2 is a top plan view of Figure 1.

Referring briefly to the drawing, Figure numeral 10 indicates the engine house of a crane which is supported on caterpillar treads 11 which are given movement by the wheels 12. The engine house has a pair of spaced apart extensions 13 projecting outwardly between which the lower end of a boom section 15 is pivotally mounted. The boom consists of a pair of longitudinal members 14 and 15 arranged end to end with a space between them. These members 14 and 15 are retained in this position by parallel beams 16 and 17 which are bolted to the members 14 and 15 in any desirable way. Leads 18 and 19 have their upper ends connected by a strap 20 which is suspended from the upper free end of the boom member 14. The leads 18 and 19 have pivotally connected thereto the ends of link members 21 and the boom member 15 has similar link members 22 pivotally joined thereto. The links 21 and 22 overlap each other and these ends are pivotally joined by a shaft 23 which spans across from one to the other of the pairs of links. This shaft has a threaded hole therein intermediate its length in which is received the lower end of a threaded spindle 24. This spindle has a right hand thread at its one end and a left hand thread at its opposite end. The upper end of the threaded spindle is engaged in the threaded hole of a swivel block 25 which has its ends rotatably anchored in the beams 16 and 17 and is positioned in the space provided between the boom members 14 and 15. A hand wheel 26 is located at the lower end of the spindle and at the upper end thereof a grooved pulley 27 is fixed around which a rope is adapted to be trained.

The device may be used on any of the prevailing types of machines used at the present time which employ an adjustable forked boom, and such a boom is used on nearly all types of machines. The machine itself comprising a power plant mounted on a mobile base which is extremely maneuverable so that the boom suspended from in front of the power plant may be swung to any angle in azimuth. The cooperation between the leads and the boom, and the means of adjusting the leads to an angular position or to permit rigid anchoring of the leads in plumbed position when the boom is in various angular positions, will permit piles to be sunk to refusal soil with quickness and despatch, as no time will be necessary for plumbing these piles, the leads thereof indicating readily when the pile to be sunk is in plumb position. The adjustable plumbing beam is adapted to vary the angle of the leads with respect to the boom. When the boom is lowered the leads describe a more obtuse angle with respect thereto and when the boom is lifted a more acute angle between the leads and the boom is formed. When the boom is lifted or lowered from one position to another the leads will hang askew after the change. To correct this so that the leads will hang in suspended position vertically downward the hand wheel is rotated in one direction or the other. This movement of the hand wheel rotates the spindle and this spindle being in threadable engagement with the block mounted on the boom and the shaft connecting the overlapped ends of the link members will fold or elongate these link members and thereby cause the

position of the leads to assume a new position with respect to the boom.

It is to be noted that certain changes in form and construction may be made without departing from the spirit and scope of the invention.

I claim:

1. In a crane, an adjustable boom, leads suspended from said boom, pairs of pivotally interconnected members pivotally joined to said boom and said leads for adjustably plumbing said leads at any position of the boom, and means at the mutually joined ends of said members for moving said members into adjusted position.

2. In a crane, an adjustable boom, leads suspended from said boom, arms pivotally joined to said boom, arms pivotally connected to said leads, the first-named arms being pivotally connected to the last-named arms, said arms being adapted to fold when said boom changes its position with respect to said leads, and means for locking said arms in position.

3. In a crane, an adjustable boom normally in inclined position, a pair of leads suspended from the upper end of said boom, a pair of arms pivoted to said boom and movable in unison, additional arms pivoted to said leads and the ends of said first-named arms, said arms being adapted to fold when the angle between the boom and the leads changes, and means engaging the mutually joined ends of the arms for locking said arms in any adjusted position.

In testimony whereof I affix my signature.

LEON PIERCE.