(No Model.)

K. LAIMINGER & J. ACKFELD.

HITCHING DEVICE.

No. 497,582. Patented May 16, 1893.

FIG. 1

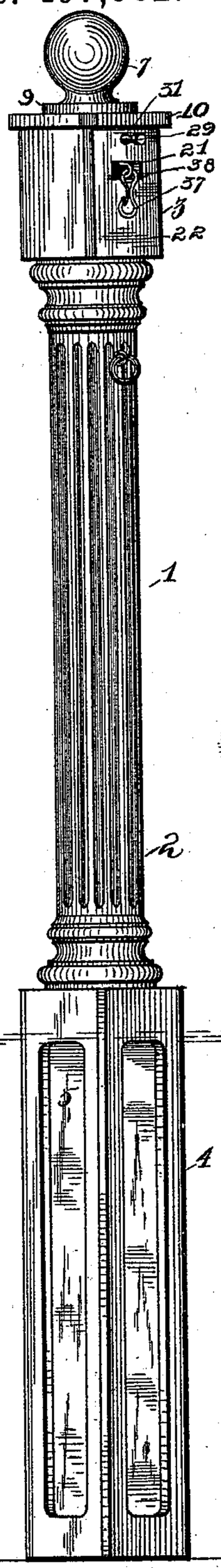


FIG. 3

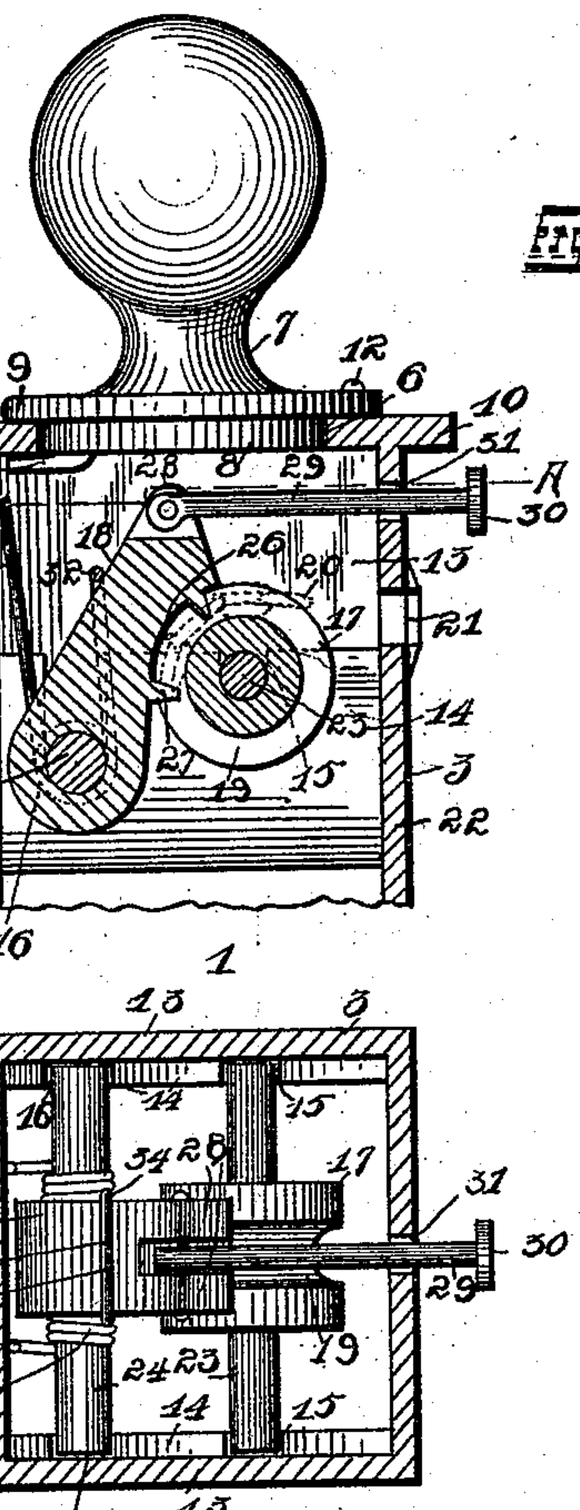


FIG. 2

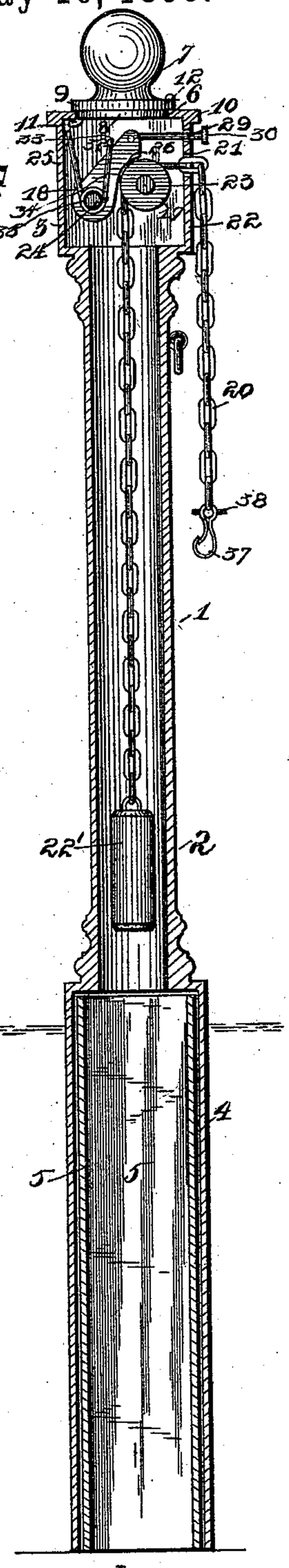
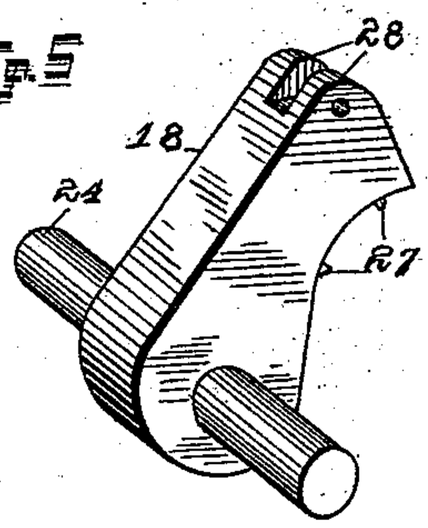


FIG. 4

FIG. 5



Witnesses

Alfred A. Ericksen

Herbert P. Robinson

Inventors

Korbinian Laiminger

Joseph Ackfeld

By Higdon and Higdon and Longan, Attorneys

UNITED STATES PATENT OFFICE.

KORBINIAN LAIMINGER AND JOSEPH ACKFELD, OF ST. LOUIS, MISSOURI.

HITCHING DEVICE.

SPECIFICATION forming part of Letters Patent No. 497,582, dated May 16, 1893.

Application filed January 9, 1893. Serial No. 457,825. (No model.)

To all whom it may concern:

Be it known that we, KORBINIAN LAIMINGER and JOSEPH ACKFELD, both of St. Louis, Missouri, have invented certain new and useful Improvements in Hitching Devices, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

Our invention relates to improvements in "hitching-devices," and consists in the novel arrangement and combination of parts, as will be more fully hereinafter described and designated in the claims.

The object of our invention is to improve upon the present construction of this class of manufacture, the post being located adjacent the street curve and carrying all of the necessary parts for the successful operation and culmination of our ideas.

In the drawings:—Figure 1 is a detail side elevation of our complete invention. Fig. 2 is a vertical transverse sectional view of the construction. Fig. 3 is an enlarged sectional view of the upper end of the post, in which the mechanism is located. Fig. 4 is a plan sectional view taken on a line A—A in Fig. 3. Fig. 5 is a detail perspective view of one of the operating parts.

Referring to the drawings:—1 indicates our complete invention consisting exteriorly of a vertical hollow post in the interior of which are located all the parts of our invention. The middle portion 2 of the post 1, in this instance is shown as circular in form, and is surmounted by a rectangular portion 3. The circular portion 2 is located upon the top of the elongated rectangular base 4, all of the sides of which are skeleton in form to assist in the securance of the device in the concrete or other foundation. Adapted to be located within the skeleton base 4 is a rectangular box 5 both ends of which are open and which is preferably made in the form of a casting of the same material as the entire post. This box 5 forms a channel, constituting a continuation of the channel in the portion 2 of the post, and is adapted to receive the weight hereinafter referred to. The top of the rectangular portion 3 is provided with an opening 6, circular in form and adapted to be closed by a removable cap 7, the bottom 8 of which is of the same diameter as the opening 6. An annularly projecting flange 9 is located immediately above the bottom portion 8 and is adapted to fit upon the top 10 of the rectangular portion 3. Secured to and projecting outwardly from the under side of the portion 8 is a lug 11 adapted to engage under the top 10. A screw 12 secured to the flange 9 into the top 10 opposite to the lug 11 secures the cap 7 to the post and allows of its removal in case examination of the internal parts is necessary. Secured to both sides 13 of the rectangular portion 3 and near the lower edges of same are horizontal pieces 14, each of which have aligned depressions 15 and 16 to provide bearings respectively for a guide pulley 17 and an eccentrically mounted lever 18. The guide pulley 17 has a central annular depression 19, over which a chain 20 is adapted to pass, there being an opening 21 in the front 22 of the rectangular portion 3, to allow the passage of said chain beyond said pulley 17. The chain 20 depends from the guide pulley 17 downwardly through the hollow portion 2 and into the box 5 held in the skeleton base 4, when said chain is at its inward limit, and secured upon the lower end of said chain is a weight block 22′, which necessitates the inward and downward movement of the chain over and from the pulley 17 when certain other parts are operated. The guide pulley 17 is mounted upon a shaft 23 in said bearings 15.

The shaft 24 upon which the lever 18 is eccentrically mounted, is held in the bearings 16 at a point below the shaft 23 and toward the rear side 25 of the rectangular portion 3.

The rear side of the lever 18 is straight in outline while the forward side is curvilinear, a portion 26 of same being similar in outline to the periphery of the guide-wheel 17.

The curvilinear portion 26 of the lever 18 has two projecting teeth 27 which slant slightly toward each other and which are in a line with the center of the annular groove 19 upon the pulley 17.

The object of the teeth 27 is evident by examination of Fig. 3 wherein said teeth are shown as engaging the chain set forth in dotted lines.

The upper end of the lever 18 has two projecting ears 28 between which is pivoted a horizontal push bar 29 on the outer end of

which is a push button 30, said rod projecting through an opening 31 in the front 22 of the rectangular box 3.

The normal tendency of the lever 18 is with the teeth 27 in engagement with the chain 20 upon the pulley 17 and this position is determined by a spring 32. This spring consists of a length of wire doubled in such a manner that a central portion 33 of the width of the lever 18 is left to engage said lever upon its rear side at a point below the ears 28.

Two downwardly extending arms 34 from the portion 33 merge into circular coils 35, one of which is located upon the shaft 24 at the sides of the lever 18, and the wire from the coil 35 terminates in upwardly projecting arms 36 which engage the rear wall 25 of the rectangular portion 3, thus keeping the lever 18 normally forward with the teeth 27 in engagement with the chain 20.

The outer free end of the chain 20 is provided with a snap 37 to engage the harness-bridle, a cross-piece 38 also forming a part of said snap-hook 37 to prevent the escape of the chain 20 through the opening 21 into the interior of the post. When the chain is pulled outwardly, the teeth 27 ride over the links of same, always engaging in said chain and preventing its backward and downward movement except when the push bar 29 is operated. The pushing in upon the finger-piece 30 causes the lever 18 to be forced rearwardly, thus releasing the engagement of the teeth 27 in the links of the chain 20, and allowing the same to drop downwardly as far as desired. It will thus be seen that the animal can suit the length of chain necessary for the comfortable movement of his head.

The rearward movement of the lever 18 releases the engagement of the teeth 27 in the chain 20 and the weight 22′ upon the lower end of the same causes the same to resume its normal position in the interior post with the snap-hook 37 projecting outwardly from the opening 21, with the weight 22′ at a point within the central hollow portion 2 or the box 5 according to the length of the chain 20.

All of the parts of our invention are preferably made of some suitable cast material although this is an immaterial point, as other constructions might be used to advantage.

Having fully described our invention, what we claim is—

1. As an improvement in hitching devices, the combination, with a tubular post provided at its upper end with a pulley, a chain playing in said post and over the pulley, and a weight carried at the inner end of said chain, of a spring-held lever pivoted within the casing in rear of the pulley and provided with forwardly-convergent teeth opposing the pulley, said teeth being adapted to engage within the links of the chain, and an operating pin pivoted to the free end of the lever and projecting through the post, substantially as set forth.

2. An improved hitching-device comprising a hollow post, the upper end of same rectangular in form, a removable cap-piece surmounting said rectangular portion, horizontal blocks located in said portion and providing bearings for a horizontally mounted guide-pulley and eccentrically mounted toothed, spring-controlled lever, the forward face of said lever curvilinear in form, said curvilinear face being provided with two projecting convergingly located teeth adapted to normally engage the chain passing over said guide-pulley and prevent the lowering of same through the hollow post, substantially as set forth.

3. An improved hitching device having a horizontally mounted guide pulley, an annular groove upon said pulley in which the chain is adapted to normally engage, a horizontally and eccentrically mounted lever having a curvilinear forward face, coinciding in form with the periphery of the guide-pulley, convergingly projecting teeth upon said curvilinear face, the shaft of said lever located in bearings in a line below the bearings for the shaft carrying the guide-pulley, a spring located upon the said lever-shaft, and compressed between the rear face of the lever and the rear side of the upper rectangular portion comprising a part of the post, upwardly projecting ears upon the upper end of the said lever, a push-rod pivoted between same, said rod projecting outwardly through an opening in the front of the rectangular portion, a button upon the end of said rod, a chain passing over said pulley, a weight upon the lower end of said chain, and the pushing back of said lever by means of said push-rod adapted to disengage the teeth from the length of the chain and allow the same to gravitate downwardly by the weight of same and a weight block upon the lower end, substantially as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

KORBINIAN LAIMINGER.
JOSEPH ACKFELD.

Witnesses:
HERBERT L. ROBINSON,
ALFRED A. EICKS.