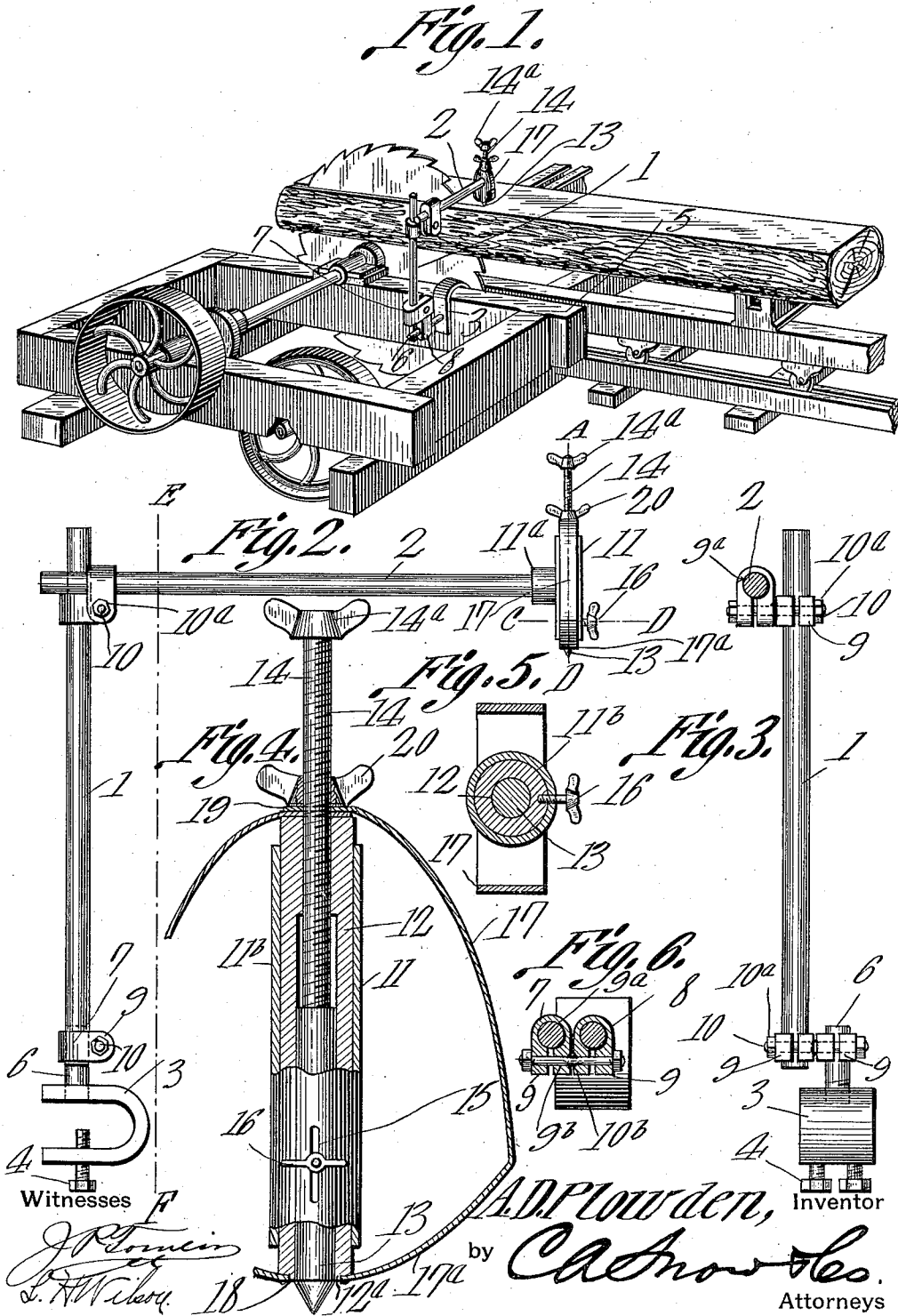


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SAWMILL CARRIAGE TESTER.
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SAWMILL-CARRIAGE TESTER.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ARTHUR D. PLOWDEN, a citizen of the United States, residing at Sutherland, in the county of Johnson and State of Tennessee, have invented a new and useful Sawmill - Carriage Tester, of which the following is a specification.

This invention relates to improvements in saw mills generally, more particularly what may be termed log-carriage testers.

The invention has for its object to provide for readily ascertaining any errancy in the line of travel of the log-carriage as also of the cutting action of the saw.

A further object is to provide for readily detecting the fault above indicated with the view of remedying the same.

A still further object is to carry out the aforesaid ends in a simple, expeditious and effective manner.

The invention consists of certain instrumentalities and features substantially as hereinafter fully disclosed and defined by the claims.

In the accompanying drawing illustrating the preferred embodiment of my invention, wherein it will be understood that various changes and modifications may be made therein as relates to the detailed construction and arrangement of the parts without departing from the spirit of my invention: Figure 1 is a perspective of a saw-mill embracing my invention. Fig. 2 is an enlarged detached elevational view of the device forming my invention. Fig. 3 is an edge elevational view of the device partly in section, the section being produced upon the line E—F of Fig. 2. Fig. 4 is a sectional elevation produced through Fig. 2, upon the line A—D. Fig. 5 is a section taken upon the line C—D of Fig. 2. Fig. 6 is a detailed view disclosing more clearly the couplings including an upright member and its arm.

In carrying out my invention, I employ a supporting or carrying member 1 having an arm member 2, both of which may be pipe sections or other improvised means for the intended purpose.

A clamp member 3 preferably of approximately U - form, suitably equipped with holding or set screws 4 for suitably engaging or applying it to the saw mandrel supporting frame 5, the upper limb of said clamp-member having fixed thereto an upright tubular member or post 6.

Couplings 7 and 8 effect connection between the member or post 6 of the clamp 3 and the member or standard 1, said couplings constituting a preferred means for forming such connection and of effecting the relative arrangement or disposition of the post 6 with respect to the point of attachment thereof to the saw-mandrel supporting frame and to the saw, as will be readily appreciated. Each coupling includes a split yoke-like or clip member 9 having an eye 9^a extending vertically therethrough, said clip member having the branches thereof formed by its split, provided with alining passages 9^b extending through the same at right angles to the axis of said eye and quite contiguous, or practically tangential to said eye, as seen particularly, in Fig. 6.

The eyes 9^a of the clips or yokes 9, receive the standard 1, and the post 6 of the clamp 3, respectively, while through the alining or registering passages 9^b of the clips or yokes is inserted a nut-equipped bolt 10 its nut being designated as 10^a, said bolt serving to effect the clamping action through the clips or yokes.

The adjoining surfaces of the clips or yoke-like members 9 are preferably provided with alining or opposed recesses 9^b, somewhat after the fashion of forming countersinks therein which are found, in practice, to result in a tighter fit therebetween than would otherwise be the case, when the clips or yoke-members are brought forcibly together under the fastening action of the bolt 10.

The arm member 2 has applied or attached thereto at its free end a T-formed member or support 11, the stem of the T constituting a short internally threaded nozzle-like portion 11^a while the head of the T is in the form of a vertical tube 11^b, which receives a supplemental or inner tubular member 12 whose ends, both upper and lower, extend short distances beyond the ends of the tubular member 11^b.

The member 12 receives, and serves to hold a suitable marker or lead 13 with its effective or object engaging end preferably flattened laterally and produced oval or rounding upon its lower edge, the flat surfaces thereof being parallel with the line of travel of the object or log upon which it is designed to produce a mark or line.

A screw-threaded member or screw 14, whose upper end has formed therewith or

fixed thereto, a thumb or winged nut-like terminal or head 14^a for convenience in actuating the screw, is threaded into an inner reduced screw threaded surface of the bore of the member 12, for suitably engaging the upper end of the marking lead 13, in aiding the retention of the latter in position and in suitably feeding or projecting the same as it reduces or wears away.

The member 11 has a vertical slot 15 therein, near its lower end, to receive a set-screw 16, threaded into the member 12, for controlling or limiting the amount of vertical play, or incidental movement allowed said member 11 for a purpose presently made apparent, the length of said slot being predetermined by such amount of movement or play it is proposed to allow the member 11 to have in the effective operation of the device.

A slidable member or shoe 17, preferably of the general or frame-like outline as disclosed, is applied to the part or member 12, said slidable member or shoe being of general plate or strap-metal dimensions, with its lower edge or base portion 17^a produced upon an arc, or segmental in contour, the curvature extending laterally of the member 12, in either direction, for a purpose presently seen. The shoe strap-metal member 17 is in a single piece and has centrally through it an opening 18, which opening receives a tenon-like extension 12^a at the extreme lower end of the member 12 to provide for the suitable retention of said shoe upon that end of said member 12.

The ends of the strap metal member or shoe 17 are suitably secured or held in position upon the upper end of the member 12 by means of a washer 19, applied to the screw 14 and to said ends of the member 17 and a thumb or winged nut 20, also applied to, and engaging said screw and contacting with or bearing upon said washer, all as clearly disclosed particularly by Fig. 4. By means of this arrangement it will be seen that the weight of the member or shoe 17 is transferred through the tubular member 12, to the marking lead whereby the latter will be suitably held to its work and at the same time allowed to readily conform to and ride over any superficial inequalities or unevenness of the object or log being operated upon or marked.

By means of the segmental outline of the lower portion of the shoe or member 17, it will be noted that, as the log to be marked or operated upon is moved by its carriage toward the marking lead, said log will initially engage or contact with said segmental portion of the member 17 at a point in a plane below the point of the marking lead and, during the continued movement of the log, upon its carriage, lift said marking lead point suitably to properly engage or mark the upper surface of the object or log.

The device is suitably disposed and clamped in position, as above indicated, upon the saw mandrel supporting frame 5 so that the marking lead 13 shall after the log upon the carriage has been moved as just set forth, occupy a position close to the saw-teeth, slightly in advance thereof, and toward one side of the log-carriage. The log or object for marking however, prior to beginning the testing operation, is to have portions removed from opposite sides thereof, a flat side or surface thus produced being presented upwardly for the engagement therewith of the thus disposed marking lead 13. When the marker is thus adjusted for service or operation, the member 12 is designed to be moved to such position that the screw 16 shall be about midway the length of its receiving slot 15, and the slidable shoe or member 17 presented with its edge parallel to the line of travel of the log-carriage, care being taken to note that all the parts, including said member 17 have been effectively tightened.

The log-carriage, now being actuated, the marker or lead will readily yield upwardly as the log passes thereunder and accordingly produce a line upon the surface of the log during the travel of the carriage with the log, the marking lead carrier or holder with its adjunctive parts including the member 17 having the requisite weight to hold the lead or marker effectively to its work. It will therefore be apparent that, if the line thus produced upon the log is crooked, as also the kerf-line made by the saw, then evidently the trouble exists in the carriage. Also if the line or marking is straight, but the kerf-line is crooked, then it is obvious that the saw is at fault. It will therefore be readily seen that in possessing this information it will often result in saving expensive repair-bills, "shut downs," discharge of men, etc.

It is also noted that my invention as thus described and illustrated is characterized for extreme simplicity for its intended ends, while it is readily applied for use and inexpensive of manufacture, the same also providing, as above disclosed, for duly discovering existing defects in saw mills, the timely correction of which result in materially improving the output of the stock.

What is claimed is:—

1. A device of the character described, including a marker, means for supporting said marker, comprising a fixed tubular member, a movable tubular member within the aforesaid tubular member, receiving said marker and means for the retention of said marker in operative position within said movable tubular member, and a shoe-member applied to said movable member and having its lower portion adapted for preliminary or initial engagement with the object being marked

for suitably disposing the marker with respect to the upper surface of said object.

2. A device of the character described, including a marker, means for supporting said marker comprising a movable tubular member, a fixed tubular member, receiving said marker, and an adjusting screw engaging said movable tubular member and adapted to bear upon said marker, means for guiding said movable tubular member with respect to said fixed tubular member, and a shoe-member applied to the marker-receiving member and having its lower portion adapted for preliminary or initial engagement with the object being marked for suitably disposing the marker with respect to the upper surface of said object.

3. A device of the character described, including a marker, means for supporting said marker comprising a fixed tubular member, a movable tubular member, receiving said marker, and an adjusting screw engaging said movable tubular member and adapted to bear upon said marker, means for guiding said movable tubular member with respect to said fixed tubular member, and a shoe member applied to the marker receiving member and having a lower downwardly curved portion adapted for preliminary or initial engagement with the object being marked for suitably disposing the marker with respect to the upper surface of said object.

4. A device of the character described, comprising a marker, means for supporting said marker, including a fixed tubular member, a movable tubular member receiving said marker, and an adjusting screw engaging said tubular member, and adapted to bear upon said member, said fixed tubular member having a vertical slot therein, a screw inserted through said slot and engag-

ing said movable tubular member, and a shoe-member applied to transfer its weight to the marker receiving member, said shoe-member having a lower downwardly curved portion adapted for preliminary or initial engagement with the object being marked for suitably disposing the marker with respect to the upper surface of said object.

5. A device of the character described, including a marker for engaging the surface of the work and means for the support of said marker with respect to said work comprising a fixed tubular member, a vertically movable tubular member within the aforesaid tubular member, receiving said marker, and an adjusting screw engaging said movable tubular member and adapted to bear upon said marker, said fixed tubular member having a vertical slot therein, a set screw inserted through said slot and engaging said vertically movable member, and a shoe applied to transfer its weight to the marker carrying member.

6. A device of the character described comprising a marker for producing a line upon the surface of the work, and means for supporting said marker with respect to the work, including a standard, a clamp member of U-form having a post, and split-clips engaging said standard and said post, respectively, each clip having its branches provided with alining passages extending at right angles to the axes of the openings of said clips, and a bolt member passing through said alining passages.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ARTHUR D. PLOWDEN.

Witnesses:

S. W. MINTON,
S. WARD.