

958,593.

G. E. CAMPBELL.
SAWMILL CARRIAGE.
APPLICATION FILED JULY 30, 1909.

Patented May 17, 1910.

3 SHEETS—SHEET 1.

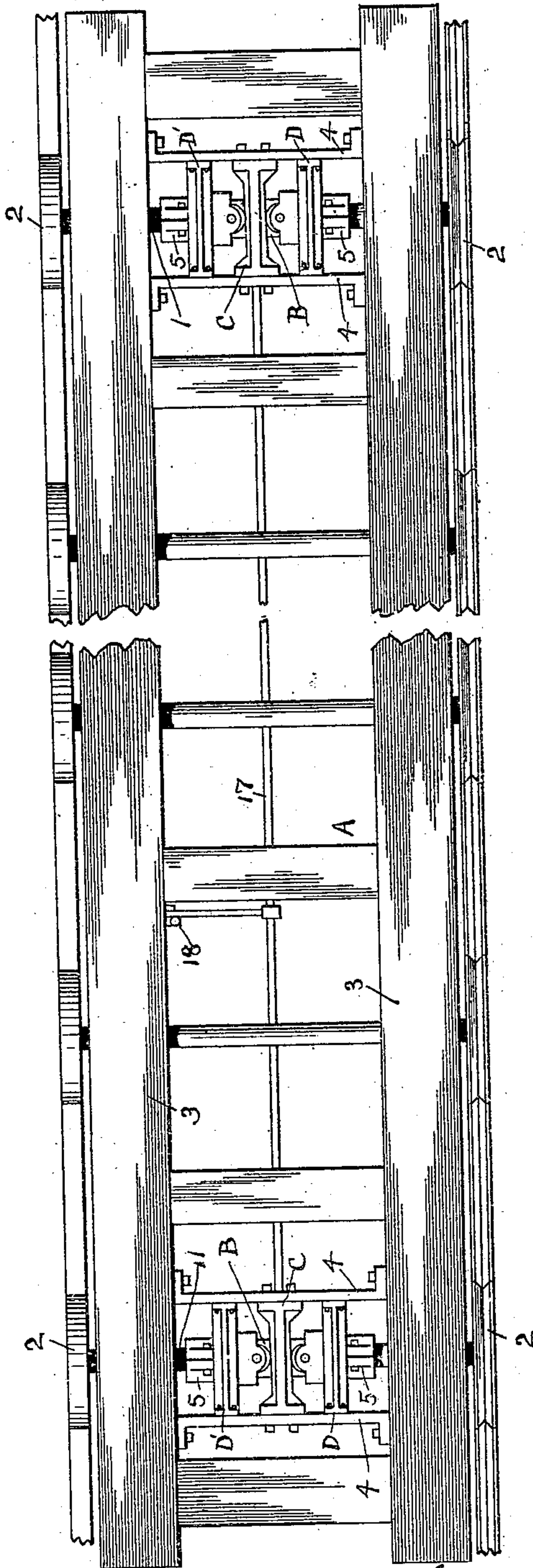


FIG. 1.

WITNESSES

Walter F. Estabrook
M. H. Freeman

INVENTOR

George E. Campbell
By Vernon C. Dodge
Attorney

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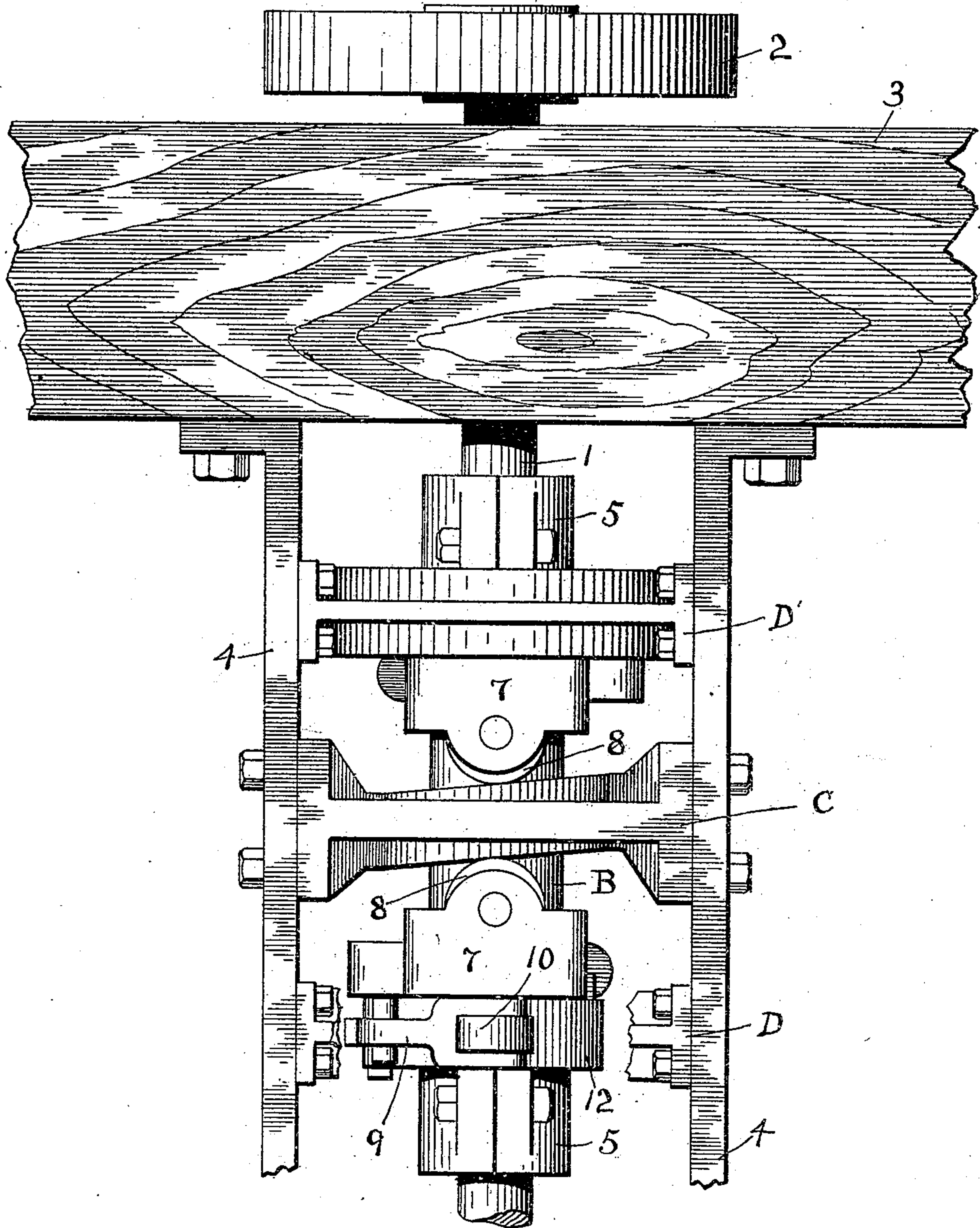
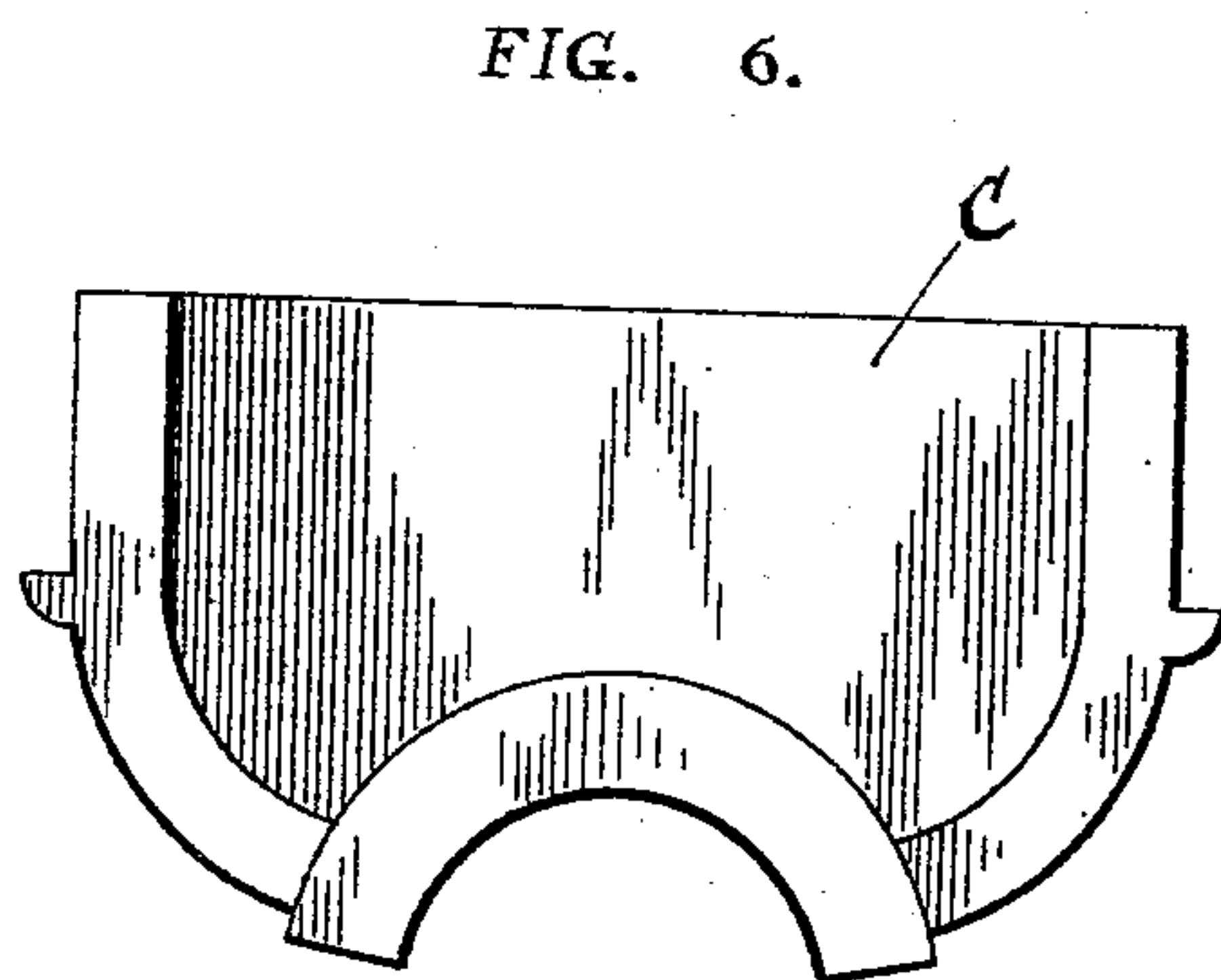
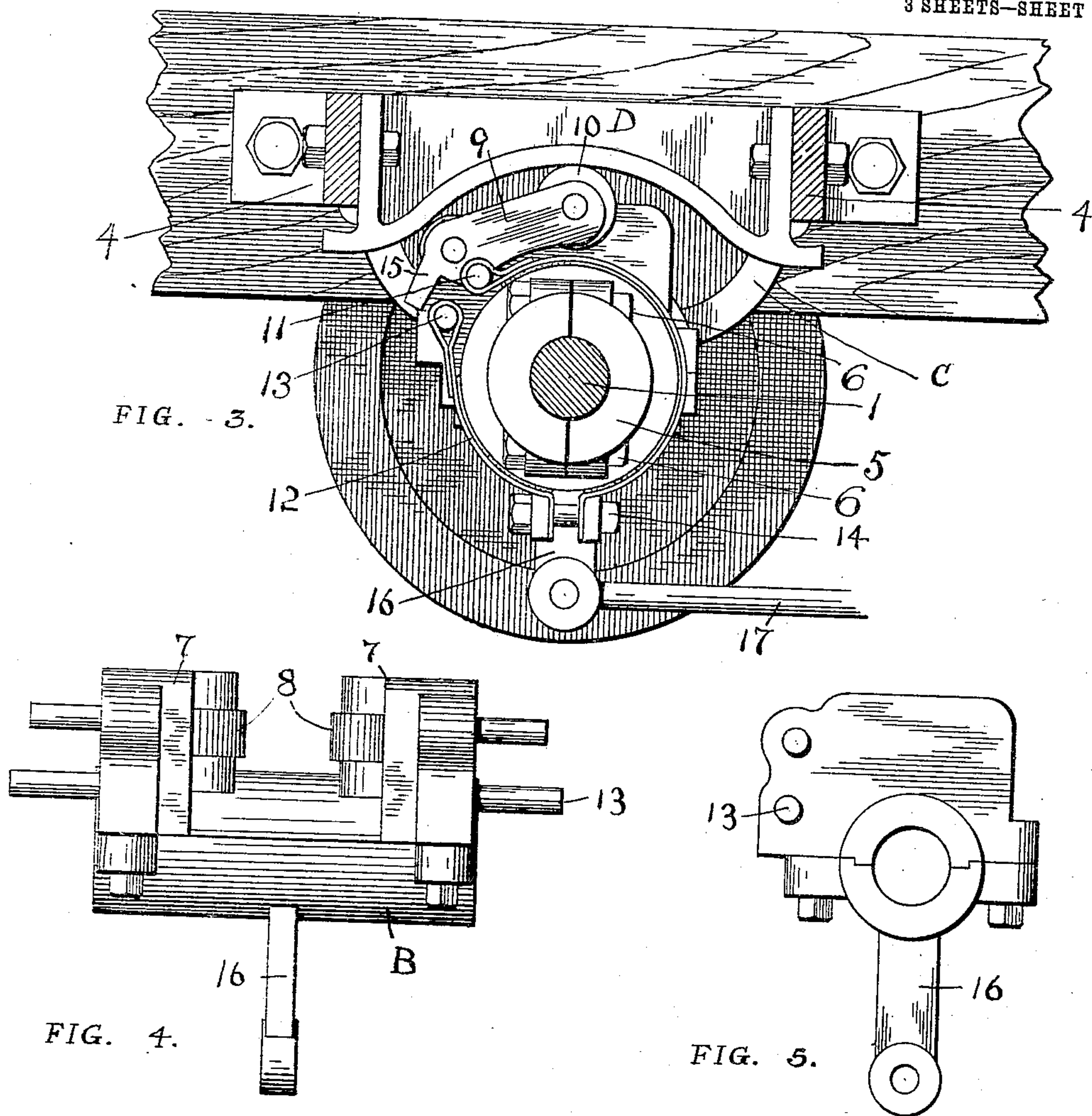


FIG. 2.

WITNESSES
Walter F. Estabrook
M. H. Freeman

INVENTOR
George E. Campbell
By Vernon C. Hayes
Attorney



WITNESSES
Watts F. Estabrook
M. A. Freeman

INVENTOR
George E. Campbell
By Vernon C. Hoyle
Attorney

UNITED STATES PATENT OFFICE.

GEORGE EUGENE CAMPBELL, OF CHATTANOOGA, TENNESSEE.

SAWMILL-CARRIAGE.

958,593.

Specification of Letters Patent.

Patented May 17, 1910.

Application filed July 30, 1909. Serial No. 510,379.

To all whom it may concern:

Be it known that I, GEORGE EUGENE CAMPBELL, citizen of the United States, residing at Chattanooga, in the county of Hamilton and State of Tennessee, have invented certain new and useful Improvements in Sawmill-Carriages, of which the following is a specification.

My invention relates to an improvement in saw mill carriages, and more particularly to that class in which the carriage is provided with automatic means for shifting the carriage so that the log will clear the saw upon the return movement of the carriage for the next cutting operation, and for advancing the carriage to its original position so that the log will be in position to be cut upon the next forward movement of the carriage.

The invention consists of certain novel features of construction and combinations of parts which will be hereinafter described and pointed out in the claims.

In the accompanying drawings—Figure 1 is a top plan view showing my invention applied to the carriage of a saw mill; Fig. 2 is an enlarged detailed top plan view of the invention; Fig. 3 is an end view; Fig. 4 is a front view of the sleeve; Fig. 5 is an end view thereof, and Fig. 6 is a side view of the cam bar.

A represents the carriage, and 1 represents the axles upon which are mounted wheels 2, 2. Side rails 3 of the carriage are loosely mounted upon the axles, and connecting the rails are transverse beams 4, 4.

Keyed to the axles, 1, at the forward and rear ends of the carriage are frictional blocks 5, 5. These blocks are preferably split and connected together by bolts 6. There are two frictional blocks on each axle, that is, on the forward and rear axles. Loosely mounted upon the axles is a sleeve B which is capable of a partial rotary or oscillating action but is prevented from lateral movement upon the axle by the frictional blocks 5. The sleeve B is provided at each end with projections 7, and journaled in the projections 7 at the forward end thereof are rollers 8 which rollers extend inwardly toward each other and are above the main body of the sleeve. A cam bar C is mounted on the transverse bars 4 and is received over the sleeve B and between the rollers 8. The rollers 8 are adapted to travel along the cam surface of the bar for shifting the saw carriage. Segments D, D'

are connected to the transverse beams 4 and extend over the frictional blocks 5. Both segments can be used in the operation of the carriage, but in the majority of instances it will only be necessary to use the one segment, and I have therefore shown only my device operating with segment D. A clutch consisting of a lever 9, and a friction band 12, is connected to the sleeve B. The lever 9 is pivotally mounted on one of the projections 7, and carried at its upper end is a roller 10 which is adapted to engage the concave eccentric surface of the segment D. A pin 11 is formed on the lever 9 and connected thereto is one section of a friction band 12, the other section of the band is connected to a pin 13 on the projection 7 and the free ends of the band are connected together by a bolt 14. A projection 15 is formed on the lever 9 and is adapted to engage the pin 13 to limit the rearward movement of the lever.

The carriage having traveled the desired distance for the cutting operation it will be caused to return to the starting point for the next cutting operation, the axle will revolve in a reverse direction, causing the lever to travel inward toward the center of the segment D, due to the frictional engagement between the band 12 and block 5 and as the roller moves inward and bears against the eccentric surface of the segment the lever will move on its pivot, causing the sleeve B to move upon the axle and the rollers 8 to engage the cam C. As the sleeve is incapable of longitudinal movement upon the axle the carriage will be moved laterally due to the connection between the transverse beams 4 and the cam C so that the log on the carriage will be moved the desired distance so that it will be out of contact with the saw upon the return of the carriage for the next cutting operation. The rollers 8 will travel along the cam surface of the cam C for causing the carriage to move laterally. During this operation the lever 9 will be traveling along the surface of the segment, and as it reaches the end of the segment the strain or pressure will begin to lessen upon the roller 10 due to the flared ends of the segment, and as the roller arrives at or about the end of the segment the lever will have moved upwardly sufficient to release the band 12 and break the frictional engagement between the band and block 5, thereby allowing the axle

and frictional block to turn freely for the remainder of the trip or stroke. The carriage has now been moved away from the saw and is moved forward for the next cutting operation. The roller 10 would travel inward along the underside of the segment, causing the band 12 to grip the block 5 and thereby operate the sleeve B, causing the rollers 8 of the sleeve to engage the cam for moving the carriage laterally so that the log will be moved into position or in the path of the saw. Upon this movement, as the lever releases the band 12 from the frictional block 5 as it nears the end of the segment D, it will be prevented from traveling too far as the projection 15 of the lever will engage the pin 13 on the projection 7 of the sleeve B. An arm 16 is formed on each sleeve B, and the two sleeve arms are connected together by a rod 17 so that both will operate at the same time. A lever 18 is connected to the rod 17 so that if at any time it is desired to prevent lateral movement the sleeves can be actuated for breaking the engagement.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a saw mill carriage, the combination with axles, of a carriage frame capable of lateral movement on the axles, a sleeve mounted on the axle, means on the frame in engagement with the sleeve for causing lateral movement of the frame, a clutch connected to the sleeve, the arrangement being such as to cause the clutch to be moved upon the operation of the carriage, and means for causing the clutch to tighten during its movement whereby the sleeve is moved for shifting the carriage.

2. In a saw mill carriage, the combination with axles, of a carriage frame capable of lateral movement on the axles, a sleeve mounted on the axle, means on the frame in engagement with the sleeve for causing lateral movement of the frame, a clutch connected to the sleeve, the arrangement being such as to cause the clutch to be moved upon the operation of the carriage, and an eccentric for causing the clutch to tighten as the clutch moves whereby the sleeve is moved for shifting the carriage.

3. In a saw mill carriage, the combination with axles, of a carriage frame capable of lateral movement on the axles, a sleeve mounted on the axle, means on the frame in engagement with the sleeve, a lever connected to the sleeve, a band connected to the lever and sleeve, means for rotating the band for causing the lever to be moved and means engaging the lever for moving the lever whereby the band is tightened causing the sleeve to be moved for shifting the carriage.

4. In a saw mill carriage the combination with axles, of a carriage frame mounted thereon capable of lateral movement, a cam on the frame, a sleeve mounted on the axle adapted to engage the cam, a lever connected to the sleeve, a friction block mounted upon the axle, a band connected to the sleeve and lever and engaging the block, and an eccentric on the frame adapted to be engaged by the lever for tightening the band whereby the sleeve is moved and the carriage shifted.

5. In a saw mill carriage the combination with axles, of a carriage frame mounted thereon capable of lateral movement, a sleeve mounted on an axle, means on the frame in engagement with the sleeve, a lever connected to the sleeve, a band connected to the sleeve and lever, and an eccentric adapted to be engaged by the lever whereby the band is tightened with the movement of the lever, causing the sleeve to be moved, thereby shifting the carriage.

6. In a saw mill carriage the combination with axles, of a carriage frame mounted thereon capable of lateral movement, a sleeve mounted on an axle, means on the frame in engagement with the sleeve, a lever connected to the sleeve, a band connected to the sleeve and lever, and an eccentric adapted to be engaged by the lever whereby the band is tightened with the movement of the lever, causing the sleeve to be moved, thereby shifting the carriage, said lever adapted to release the band as it moves toward the end of the eccentric.

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

GEORGE EUGENE CAMPBELL.

Witnesses:

CLAUDE H. HUSTON,
GEORGE A. MELL.