

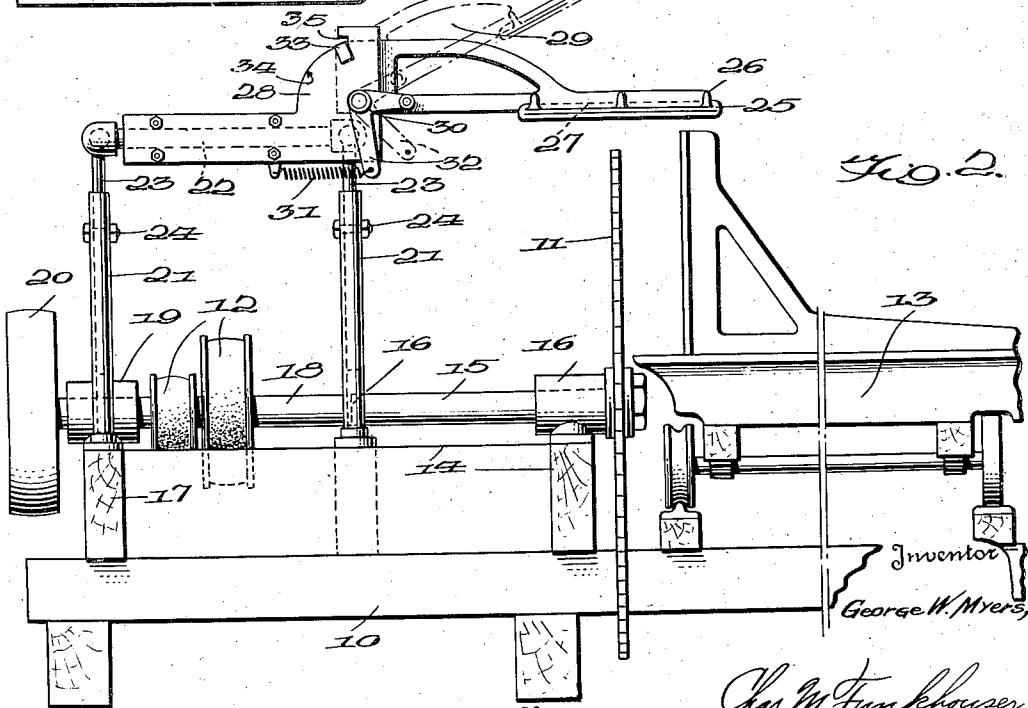
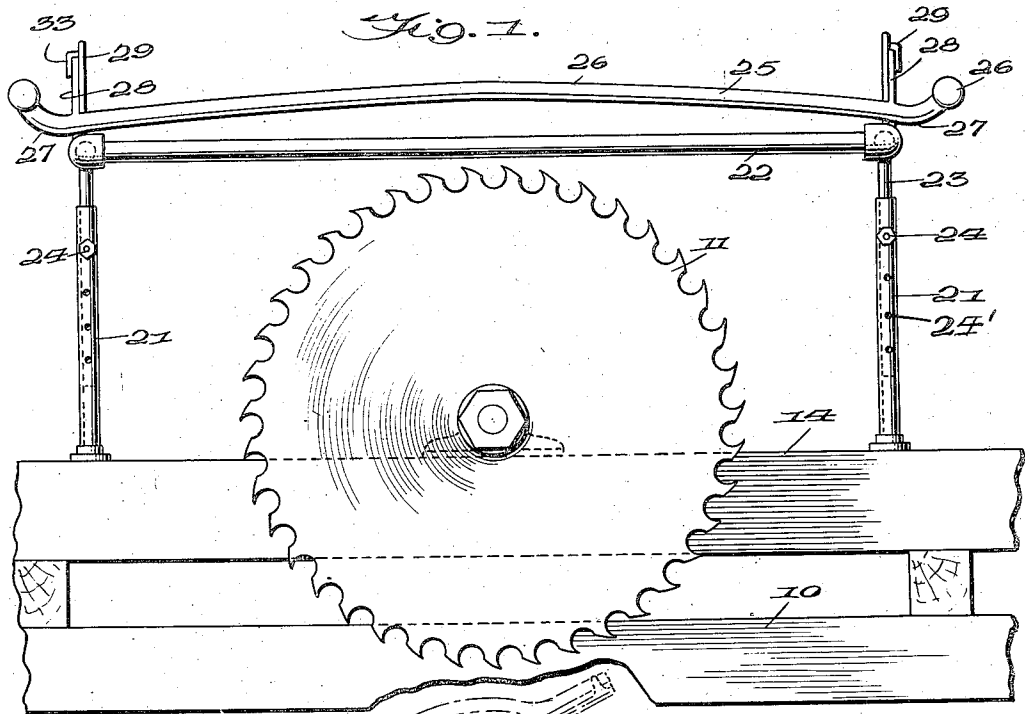
July 20, 1937.

G. W. MYERS

2,087,577

SAWMILL GUARD

Filed July 18, 1935



Inventor
George W. Myers,

Chas. M. Funkhouser

Attorney

UNITED STATES PATENT OFFICE

2,087,577

SAWMILL GUARD

George W. Myers, Chicago, Ill.

Application July 18, 1935, Serial No. 32,086

3 Claims. (Cl. 143—159)

This invention relates to sawmill appliances and more particularly to a guard mechanism for the saw and its associated power drive connections.

5 One important object of the present invention is to provide a novel guard arrangement for the saw and the driving mechanism therefor.

Another object of the invention is to provide a guard arrangement of the character designated 10 which shall be conveniently adapted to any sawmill frame so as not to interfere with the economical operation thereof.

A further object of the invention is to provide a guard arrangement of the character designated 15 which shall be adjustably mounted and flexible in operation to permit unrestricted use of the saw and mechanism protected thereby.

A further object of the invention is to provide a guard of the character designated which shall 20 be simple and durable in construction to effectively reduce accidental injuries of workmen to a minimum.

These and other objects of the invention will be more manifest from the following specification and drawing and more particularly set forth 25 in the claims.

In the drawing:

Figure 1 is a longitudinal view showing a section of a sawmill embodying my invention; and

30 Figure 2 is a sectional view of the apparatus shown in Fig. 1.

Referring to Figs. 1 and 2 of the drawing, there is shown a sawmill installation embodying a novel form of guard constructed and arranged 35 in accordance with the present invention.

A sawmill of the type to which my invention may be applied is of the heavy commercial open frame type and includes a rigid frame unit 10 for mounting a circular saw 11, its driving unit 12, 40 and a movable rack carriage 13 for feeding lumber to the saw as well understood in the art.

The frame 10 supports a supplemental rectangular frame indicated by the numeral 14 for accommodating the saw 11 and its shaft 15 45 mounted in suitable bearings, one of which is indicated by the numeral 16. Rigidly connected to the saw frame is an adjacent rectangular frame 17 for accommodating a reduction belt driving unit 12 including a drive shaft 18 mounted in suitable bearings, one of which is indicated 50 by numeral 19. The unit is connected to a suitable source of power indicated by the numeral 20.

In sawmills of this type, the pulley unit 12, shafting 18, and saw 11 are all usually exposed 55 in the open frame mounting, and workmen fre-

quently become seriously injured due to the risks and hazards in operating such machinery, and it is to these parts that a guard embodying my invention is applied. Located at the corners of the power frame 17 are rigidly mounted upright 5 standards 21—21 which form guard posts for the driving mechanism. These posts are adapted to form convenient supports or hand rests for a workman while oiling or otherwise attending the machinery while it is in motion. 10

Carried by the standards 21—21 is a horizontal rectangular frame 22; this frame is carried on corner members 23—23 telescoping with standards 21—21 so that the same may be vertically 15 adjusted by pins 24—24 passing through holes 24' in the members. The frame 22 carries a substantially flat rectangular horizontal saw guard member 25 hingedly connected thereto and overlying the upper portion of the saw 11 and in close 20 proximity thereto. The guard 25 is preferably made of sheet metal and provided with longitudinal rib reinforcing members 26. The outer edge ribs form side hand rails in convenient reach of a workman and which may be grasped 25 should he accidentally fall toward the saw. The front and rear edges of the guard are curved upward as indicated by 27 so that the guard may be raised by large or uneven pieces of lumber that may be fed to the saw. The guard member 25 30 is hingedly connected to frame 22 by end plate members 28—28 secured at opposite ends of the frame 22. The guard 25 is connected to these end members by a pair of arms 29—29 connected to the end plates 28—28 by a pivot member indicated by the numeral 30. In order to insure that 35 the guard 25 shall be yieldably held in close proximity to the saw at all times, a coil spring 31 is connected to the frame 22 and an arm 32 on the guard arm 29. The arrangement is such that the entire space around the saw and saw 40 frame is clear and unobstructed for all desired manipulation of the lumber or material worked upon. The arms 29 are each provided with an ear 33 adapted to engage an arcuate surface 34 on the support plate 28. Also found on this 45 plate 28 is a stop 35 for limiting the downward movement of the guard 25 and rigidly holding the same relative to the saw.

Having thus described a sawmill guard constructed and arranged in accordance with my invention, the operation and advantages thereof will be obvious. The saw guard 25 is maintained in proper horizontal position above the saw at all times by the spring 31 and thus facilitates free and unobstructed use of the saw and the as- 55

sociated lumber carriage 13. The saw driving mechanism is guarded by the guard support posts 21 and frame in order that these shall provide hand or body rests for the workman while moving about the machinery and attending the same during the normal operation thereof. Thus by employing my novel guard construction, the sawmill may be more efficiently attended without any of the hazards usually encountered in unprotected sawmills of the large commercial type.

I claim:

1. In a sawmill, the combination with a frame mounting for a saw and a power mechanism therefor, of a guard for said power mechanism comprising upright standards, a rectangular open frame carried by said standards, end plates connected to said frame and each having an arcuate guide surface including a stop, and a saw guard hingedly connected to said guide plates and having a portion engaging said arcuate surface and said stop to positively limit its swinging movement at a horizontal position relative to the saw.

2. In a sawmill, the combination with a frame mounting for a saw and power mechanism therefor, of a guard rail frame surrounding said power mechanism, upright standards for rigidly supporting said frame, a horizontally disposed saw guard hingedly connected to said frame and overlying said saw, and rib members formed on the front and end portions of the saw guard to form hand rests thereon in substantially the same plane with the guard rail.

3. In a sawmill, the combination with a frame mounting for a saw and a power mechanism therefor, of a guard for said power mechanism comprising upright standards, a frame carried by said standards, a horizontally disposed saw guard hingedly connected to said frame and overlying said saw, a stop member for holding said saw guard in a horizontal position relative to said saw, a yieldable connection between said frame and saw guard for holding the saw guard in engagement with said stop, and means for vertically adjusting the frame and saw guard.

GEORGE W. MYERS.