Oct. 13, 1942. H. HAM 2,298,372

MOVABLE STOP

Filed Aug. 8, 1940

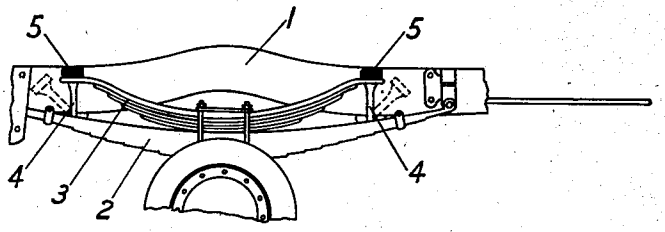



FIG. 1

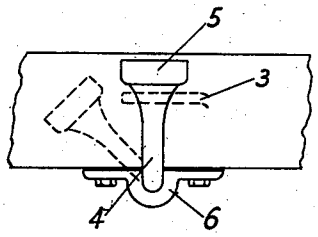



FIG. 2

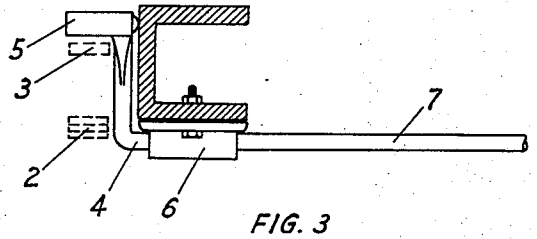



FIG. 3

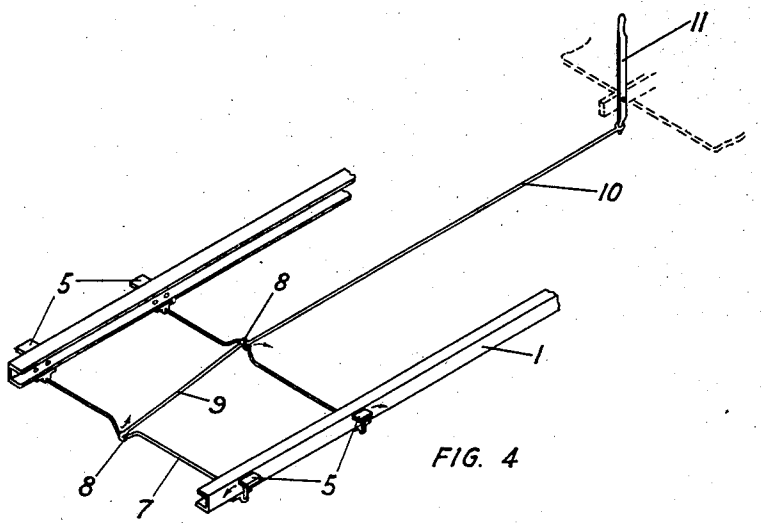



FIG. 4

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2,298,372

# UNITED STATES PATENT OFFICE

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## MOVABLE STOP

Hughey Ham, Farmerville, La.

Application August 8, 1940, Serial No. 351,889

3 Claims. (Cl. 267—45)

My invention relates to spring stops.

An object of my invention is to provide a movable spring stop.

Another object of my invention is to provide a manually operable movable spring stop for use in connection with the overload spring as found on trucks or the like.

Other objects and advantages of my invention will appear in the detailed description of the illustrated movable spring stop structures embodying my invention illustrated by the drawing.

Figure 1 is a side view of a main spring and overload spring assembly with my movable stop attachment shown in its operating position.

Figure 2 is an enlarged fractional view of the stop lug of my movable stop.

Figure 3 is another enlarged fractional view of the stop lug of my movable stop.

Figure 4 is a view of a shifting mechanism for operating the lugs of my movable stop.

Before starting the description of the drawing, let me say that I do not claim to be the originator of the spring stop, broadly speaking, for spring stops have been used for quite a few years in connection with trucks where an overload spring is provided. In these prior art structures the overload spring stops have been rigidly fastened to the body of the truck in line with the tips of the overload spring. In my experience in using trucks in logging practice on the return trips with empty truck where roads were rough, the standard spring furnished by the truck factory was too stiff for the rough roads encountered in logging practice. Merely weakening the main spring did not remedy the trouble, for after the main spring was weakened, the truck body oscillated so violently that the overload spring stop brought the overload spring into play. So it was to make use of a light main spring in connection with an overload spring, that I was led to invent a movable overload stop, one that could be thrown out of active position on the return trip of the truck to allow the main spring to oscillate fully and freely.

In the illustrated form of movable stops shown in the drawing embodying my invention, numeral 1 designates the body frame of a truck which is equipped with a main spring 2, an overload spring 3. The lugs 5 of the stop 4, shown by the solid lines are in their operating position while the dotted lines show the lugs 5 in their thrown out or inoperative position.

The stops 4 for convenience in manufacturing are made in pairs with a common bearing rod 7 connecting them. There are two of these double stops, 4 to a truck mounted in bearings 6. However, the stops 4 might be made singly with each having its independent bearing rod.

The pairs of stops 4 are spaced apart the length of the overload spring are best shown in Figure 4. The rod 7 of the pairs of stop lugs are formed at their centers into U-like offsets constituting levers 8 for use in throwing the lugs 4 into and out of operating position. The levers 8 are connected together by a connection link 9. At the forward end of the connection link 9 a pull rod 10 is linked on the forward U-lever 8. The pull rod 10 is connected to a shifting lever 11 pivoted to the frame 1 of the truck in such a position that the free end of the lever 11 will extend up into the cab of the truck in a manner convenient to the truck driver. As shown in the arrangement illustrated by Figure 4, the lugs are in operating position. A rearward throw of the lever 8 working through the pull rod 10 and link 9 throws the lugs out of operating position and into inoperative position.

In practice the driver, when driving the empty truck, throws the stop 4 into the inoperative position. Just before loading the truck it is necessary to throw the stops 4 into operating position. This must be done before loading for after loading the overload spring ends would be moved to positions, due to the load, where the stop 4 could not be thrown into operating positions.

I prefer to make my movable stop out of non-brittle steel because of the shock it receives from rough road travel. However, other materials may be used if desired.

It is to be understood that my invention is not to be limited to the structures herein illustrated and described and that various changes in the shape, size and arrangements of parts may be resorted to within the scope of my invention.

Having thus described my invention, I claim:

1. A movable spring stop mechanism comprising a pair of parallel spaced axles, bearing members for rotatably mounting the axles on the frame of a truck or the like, each axle being provided with a pair of spaced lugs adapted to resist the movement of a spring, each axle being provided with a lever adapted to turn it, a link connecting the said levers and a pull rod having a connection with the said two levers and their connecting links whereby a movement of the pull rod will cause the two levers and connecting links to move.

2. In a rotatable stop means for use with a pair of leaf springs in supporting position under a vehicle, a movable leaf spring stop mechanism

comprising a pair of spaced lugs in line with the said leaf springs and attached to a common axle, bearing means for rotatably mounting the said axle with its attached lugs on the frame of the vehicle, said axle being provided with a lever on the axle for turning the lugs into and out of the path of the leaf springs.

3. The device as claimed in claim 2 including a pull rod pivotably connected with the said lever and also pivotably connected to a shifting lever whereby to permit remote control of the stop means.

HUGHEY HAM.