July 18, 1944. K. A. COUNTS 2,353,999

WOODEN WAGON AND SPRING THEREFOR

Filed Aug. 24, 1943

FIG. 1

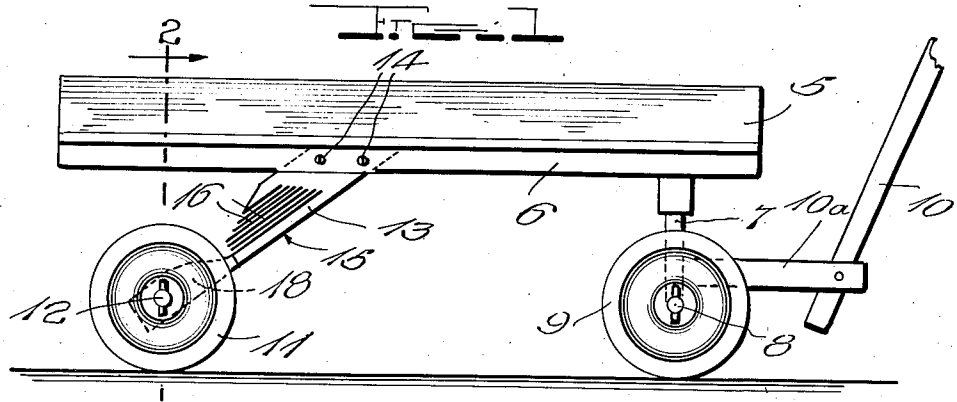
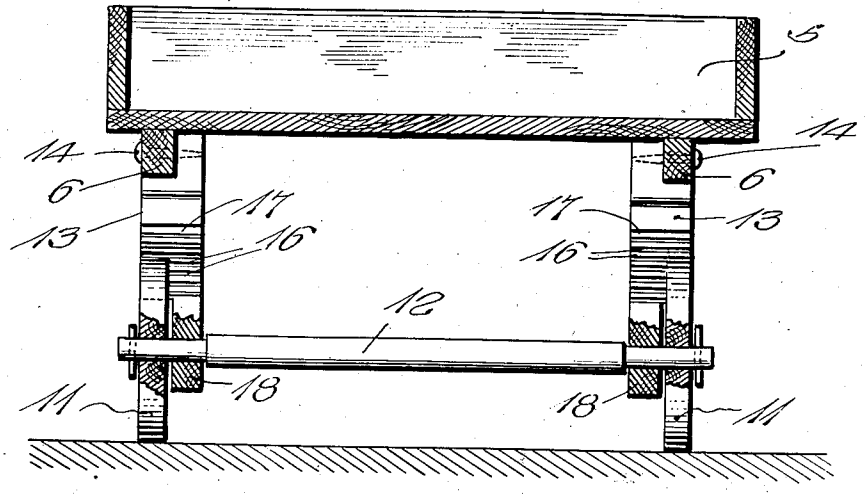



FIG. 2



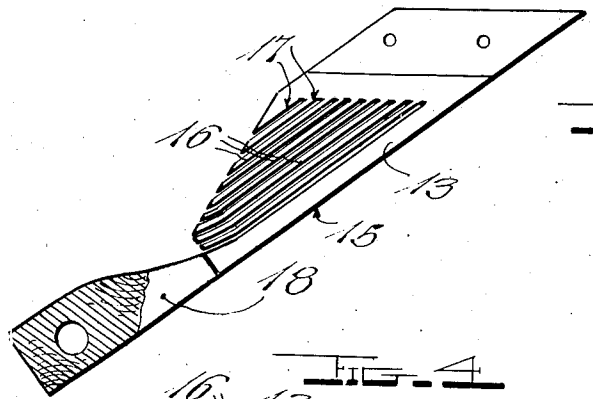
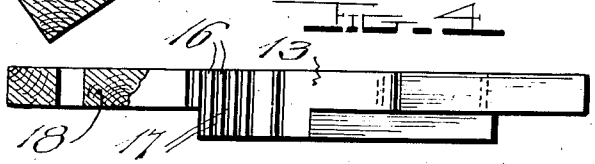




FIG. 3

FIG. 4




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## WOODEN WAGON AND SPRING THEREFOR

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Application August 24, 1943, Serial No. 499,837

3 Claims. (Cl. 267—41)

This invention relates to vehicles such as wagons or the like, and the object of the invention is to provide a wagon of the character constructed of wood, and to provide a spring or yielding standard for supporting the body of the wagon, the said standard being of wood having the characteristics which gives a spring action, while at the same time affording sufficient rigidity to support an appropriate load.

It is an object of this invention to produce a standard having a plurality of resilient or spring-like leaves formed as a part of the standard and which coact progressively or successively to support the load as the load is increased, it having been found that standards of this character have a yielding action which affords comfortable riding, while at the same time it has strength and durability to withstand the wear incident to the use of the vehicle.

With the foregoing and other objects in view, the invention consists in the details of construction, and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawing forming part of this application, wherein like characters denote corresponding parts in the several views, and in which:

Figure 1 illustrates a view in side elevation of a wagon with a standard embodying the invention;

Figure 2 illustrates a transverse vertical section on the line 2—2 of Fig. 1, omitting parts in front of the spring standard;

Figure 3 illustrates a side elevation, partly in section, and

Figure 4 illustrates an edge thereof, partly in section.

In the drawing 5 denotes a wagon body having a frame 6 and a standard 7 which is coupled to the axle 8 of the front wheels 9 in any appropriate way and, since the details in this respect may be modified to suit particular requirements, it is not described in detail. A tongue 10 may be pivoted on arms, such as 10*a*, connected to the front axle so that the wagon may be guided.

Rear wheels such as 11 are rotatable on an axle 12 and the axle in turn supports standards such as 13, each of which is illustrated as having its upper end attached to the frame 6 in appropriate manner, as by fastenings 14 such as screws or the like.

The lower end of the standard has an aperture to receive the axle or a spindle thereof and the said standard is substantially straight on its lower edge 15, while its upper edge is beveled from a point near the top thereof so that an inclined surface results. The standard is divided into a plurality of spring leaves such as 16, formed integral with the main body of the standard, which are resilient according to the character of the wood from which the leaves are formed. The leaves are separated by kerfs 17 formed by sawing the standard longitudinally and as the standard is of reduced thickness as at 18, it will yield under the weight applied to the wagon body; this part of the standard may be regarded as the main spring of the standard, and the ends of the leaves will successively contact the main spring of the standard or the superimposed leaves and aid in supporting the load, yet the standard will have sufficient resiliency to support the rider or occupant of the wagon in comfort.

I claim:

1. A wooden wagon comprising a running gear and a body, yieldable supports for the body including wooden standards each having one end connected to the body and the other end connected to an axle of the running gear, each of said standards having integrally formed superimposed spring leaves separated at their ends and successively coacting with one another as the load is increased.

2. A wooden spring comprising a strip having means for connecting one end with the body and the other end of the strip to the axle of a wagon, the said strip having longitudinally extending kerfs, and spring leaves between the kerfs, the said standard having a reduced thickness below the innermost kerf whereby the main leaf of the spring is produced.

3. In a vehicle, a wooden standard between a load-bearing element and an axle, said standard having a surface inclined toward the lower end and having kerfs extending longitudinally from the inclined edge of the standard forming springs whose ends successively contact one another as the standard bends under its load so that a resilient action is afforded.

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