E. M. BLACKSHER.

ARMORED AUTOMOBILE.

APPLICATION FILED SEPT. 26, 1916.

1,229,869.

Patented June 12, 1917.

2 SHEETS—SHEET 1.

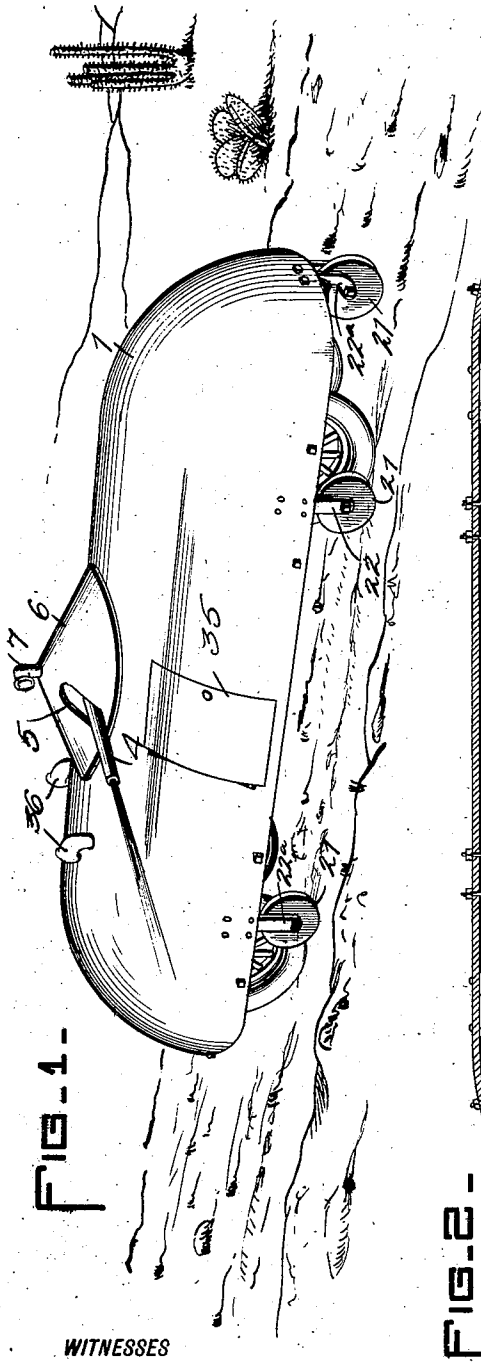


FIG. 1.

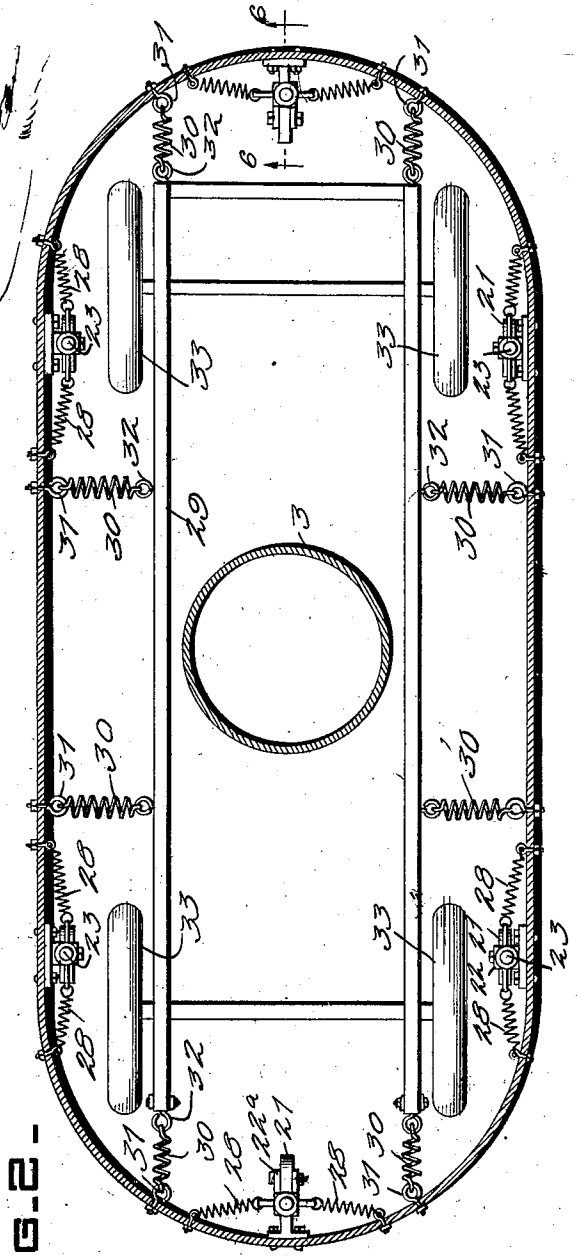


FIG. 2.

WITNESSES

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2 SHEETS—SHEET 2.

FIG. 3.

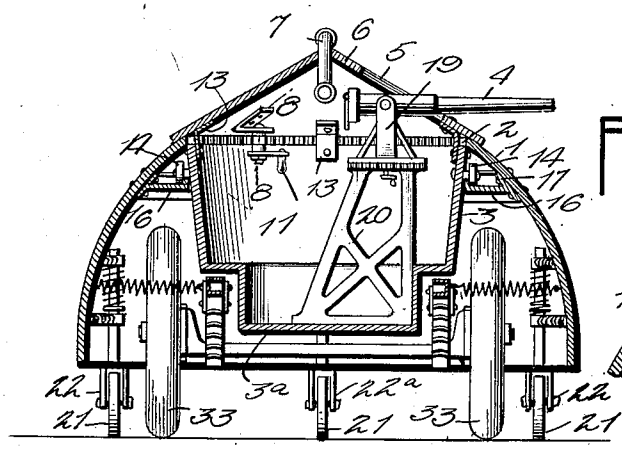


FIG. 7.

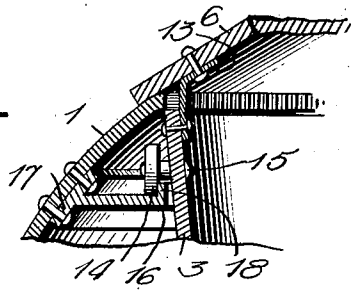


FIG. 8.

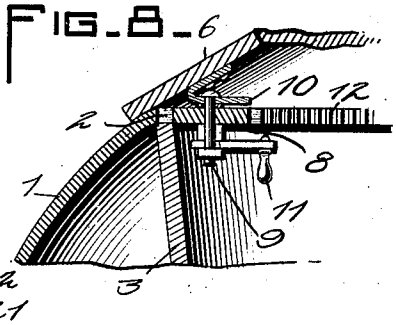


FIG. 4.

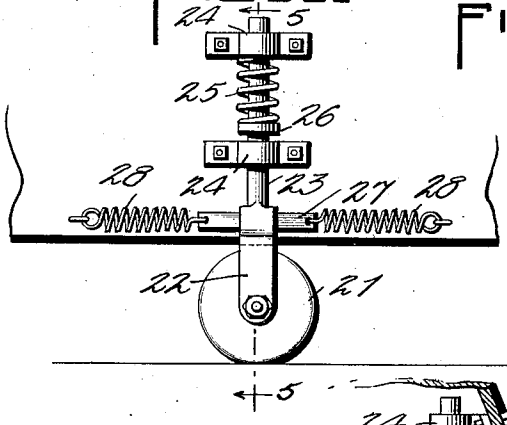


FIG. 5.

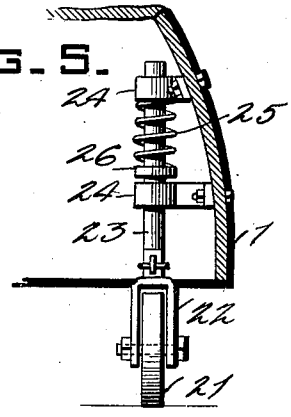
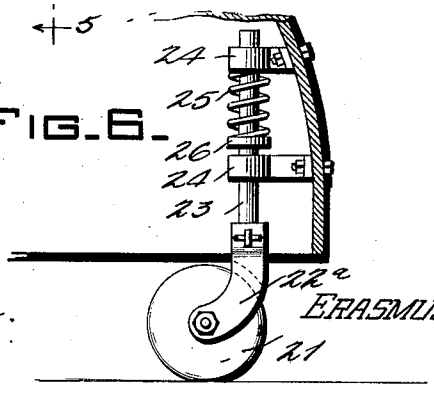


FIG. 6.



WITNESSES

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UNITED STATES PATENT OFFICE.

ERASMUS MANFORD BLACKSHER, OF BREWTON, ALABAMA.

ARMORED AUTOMOBILE.

1,229,869. Specification of Letters Patent. Patented June 12, 1917.

Application filed September 26, 1916. Serial No. 122,240.

To all whom it may concern:

Be it known that I, ERASMUS MANFORD BLACKSHER, a citizen of the United States, and a resident of Brewton, in the county of Escambia and State of Alabama, have invented an Improvement in Armored Automobiles, of which the following is a specification.

My invention is an improvement in armored automobiles, and has for its object to provide a device of the character specified, wherein a protective casing is mounted on the automobile, in such manner that the vital parts of the automobile and the occupants will be shielded and protected, and wherein the casing carries a revoluble turret, the casing being yieldingly connected to the frame of the automobile to yield in every direction, and wherein auxiliary supporting means is provided in connection with the casing for supporting the weight of the same and the arms and munitions carried thereby, to relieve the frame from such weight.

In the drawings:—

Figure 1 is a perspective view of the improved armored car.

Fig. 2 is a horizontal section.

Fig. 3 is a transverse vertical section.

Fig. 4 is a detail view of a portion of the casing from the inside.

Fig. 5 is a section on the line 5—5 of Fig. 4, looking in the direction of the arrows adjacent to the line.

Fig. 6 is a view similar to Fig. 4 of one of the end casing supporting wheels.

Fig. 7 is an enlarged detail of a portion of Fig. 3.

Fig. 8 is a section on the line 8—8 of Fig. 3.

In the present embodiment of the invention, a casing 1 of suitable material is provided, the said casing having a rounded contour, as shown, and being modeled as closely as consistent with the shell of a tortoise. A central opening 2 is provided in the shell or casing, and within this opening is arranged a revolving turret 3, which may carry a gun 4, the gun extending through an opening 5 in the hood or cover 6 for the turret. This turret, as shown, consists of an inverted cup-shaped casing having a reduced portion 3^a at its lower end, and the body of the turret tapers slightly, as shown, having its large end upward, and this large end is of approximately the same diameter as the opening 2 for the turret. The cover 6 for the turret is conical or tapering, as shown, having a central opening for permitting the passage of a periscope 7, and the turret laps upon the outer face of the casing 1 about the opening, as shown more particularly in Figs. 3 and 8. The turret is rotated by means of a gear wheel 8, which is secured to a stub shaft 9 journaled in an angular bracket 10 secured to the cover for the turret, and the shaft is provided with a crank 11 for permitting the same to be rotated from within the turret.

The pinion meshes with a series of teeth 12, which is formed on the edge of the opening 2 of the casing 1 for the turret, and it will be obvious that when the pinion is rotated, the turret will be rotated from the engagement of the pinion with the gear teeth. The cover for the turret is connected to the turret by means of angle members 13, each of which is riveted at one end to the cover and at the other end to the body of the turret, the said angle brackets extending across the space between the cover and the turret. The turret is supported by wheels 14, which are journaled on stub shafts 15 mounted on the body of the turret and extending laterally outward therefrom, and these wheels roll upon an annular track plate 16, secured to the casing 1, and extending laterally inward therefrom. This track plate is a ring, having at its outer edge an oblique cross flange 17 which fits against the inner face of the casing 1 and is secured thereto, and at its inner edge the ring has an upstanding flange 18, which limits the inward movement of the wheels 14. Thus the turret and its contents are supported entirely by the casing 1. The gun carriage 19 is mounted on suitable supports 20 which rest upon the bottom of the turret, and the usual means is provided for elevating the gun and for adjusting the same for shooting.

The casing 1 is supported by four side wheels and two end wheels, a pair of side wheels being arranged at each side of the casing, and an end wheel being arranged at each end thereof. Each of the side and end wheels 21 is mounted in the arms 22 and 22^a of a fork at the lower end of a journal pin 23. Each of these journal pins 23 is mounted in bearings 24 secured to the inner face of the casing 1, in such position that the bearings are in vertical alinement. A coil spring 25 is arranged on each journal pin

between the uppermost bearing, and a fixed stop 26 on the journal pin, each spring normally acting to press the journal pin and the wheel downward. Thus the casing is yieldingly supported by the wheels, and is cushioned against shock and jar that may be transmitted by the wheels. The only difference between the arms 22 and 22ª is that the arms 22ª are curved, like a caster wheel support, to permit the wheels at the ends to swing to follow the steering of the vehicle.

A bar 27 is connected with each journal pin at its connection with the arms 22 or 22ª, the said bar extending on opposite sides of the journal pin in the plane of the wheel. A coil spring 28 is arranged between each end of the arm and the casing, one end of each spring being connected to the bar and the other with the casing. These springs act normally to resist outward movement of the journal pin and wheel with respect to the casing, supplementing the action of the spring 25. In addition they cushion the movement of the wheel downward with respect to the casing, thus cushioning the rebound of the casing.

The casing and its connections are connected with the frame 29 of an automobile of any usual or desired construction, by means of coil springs, the springs being arranged in pairs at the sides and at the ends. Each of the springs 30 is connected at one end to an eye 31 on the casing, and at the other to an eye 32 on the frame 29 of the automobile.

As shown in Fig. 2, the springs 30 at the ends of the frame are connected with the ends of the side members of the frame, while the springs 30 at the sides are connected with the sides of the said side members. Thus the casing is yieldingly connected to the frame, to yield in every direction, while at the same time the springs tend to retain the casing in fixed and definite relation with respect to the car upon which it is mounted.

All the weight of the armor, arms and munitions is supported by the wheels 21, bringing thus no additional strain upon the wheels 33 of the car.

It will be noticed from an inspection of Fig. 1 that a door 35 is provided, for permitting admittance to the interior of the casing, and it will be understood that a similar door is provided in the turret. Preferably the interior of the casing is also so arranged that munitions, stores and the like may be stored in the interior thereof, and it will be obvious that, if desired, the steering mechanism of the vehicle might be so connected with the front wheels as to move the said wheels in synchronism with the steering wheels of the vehicles. In order to provide for ventilation, air chutes 36 are arranged at suitable points, said chutes being of light metal so that if struck by a bullet or the like they will be pierced without damaging the same so far as their function of ventilation is concerned.

I claim:

1. In combination with an automobile, an armor casing fitting over and outside of the automobile, said casing having a central opening in its top and a turret having a tapered protecting cover mounted to rotate in the opening, the cover extending over the casing at the edge of the opening, means for rotating the turret with respect to the casing, means on the casing for supporting the turret for rotation, a yielding connection between the frame of the automobile and the casing at the sides and ends of the frame, wheels for supporting the casing, said wheels being arranged in pairs at the sides and at the ends, a journal pin mounted to slide vertically on the casing at each wheel and having a fork between whose arms the wheel is journaled, a spring normally pressing each journal pin downward, the arms of the forks of the wheels at the ends being curved.

2. In combination with an automobile, an armor casing fitting over and outside of the automobile, said casing having a central opening in its top and a turret having a tapered protecting cover mounted to rotate in the opening, the cover extending over the casing at the edge of the opening, means for rotating the turret with respect to the casing, means on the casing for supporting the turret for rotation, a yielding connection between the frame of the automobile and the casing at the sides and ends of the frame.

3. In combination with an automobile, an armor casing fitting over and outside of the automobile, a yielding connection between the frame of the automobile and the casing at the sides and ends of the frame, wheels for supporting the casing, said wheels being arranged in pairs at the sides and at the ends, a journal pin mounted to slide vertically on the casing at each wheel and having a fork between whose arms the wheel is journaled, a spring normally pressing each journal pin downward, the arms of the forks of the wheels at the ends being curved.

4. In combination with an automobile, an armor casing fitting over and outside of the automobile, and a yielding connection between the frame of the automobile and the casing at the sides and ends of the frame, and wheels for supporting the frame and yieldingly connected therewith.

ERASMUS MANFORD BLACKSHER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."