Nov. 18, 1924.

1,516,461

J. H. SAGER

AUTOMOBILE BUMPER

Filed May 21, 1923

Fig. 1

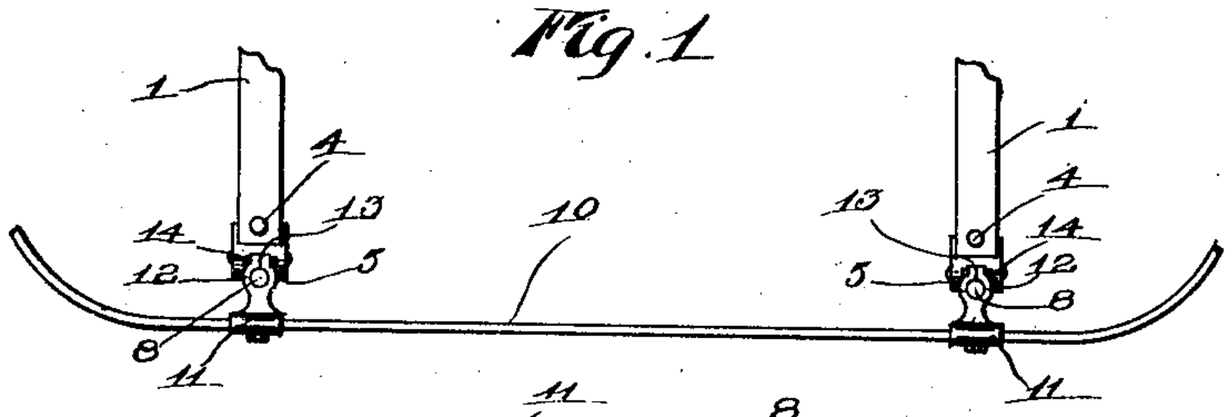
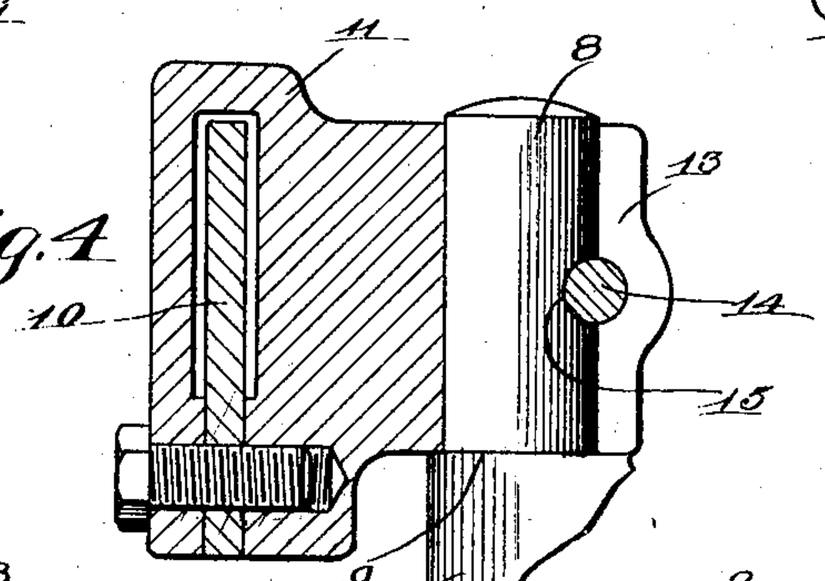


Fig. 4



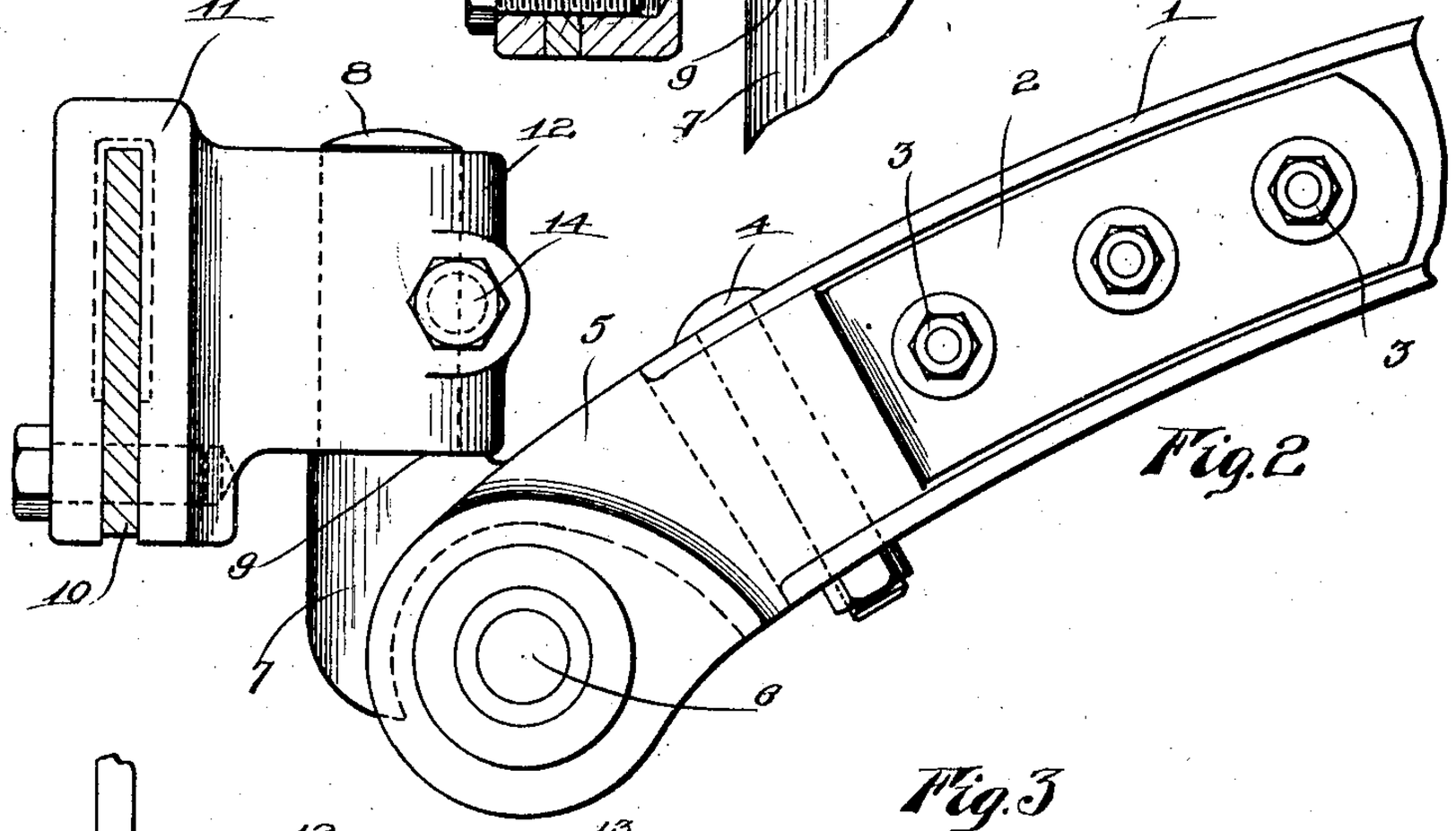
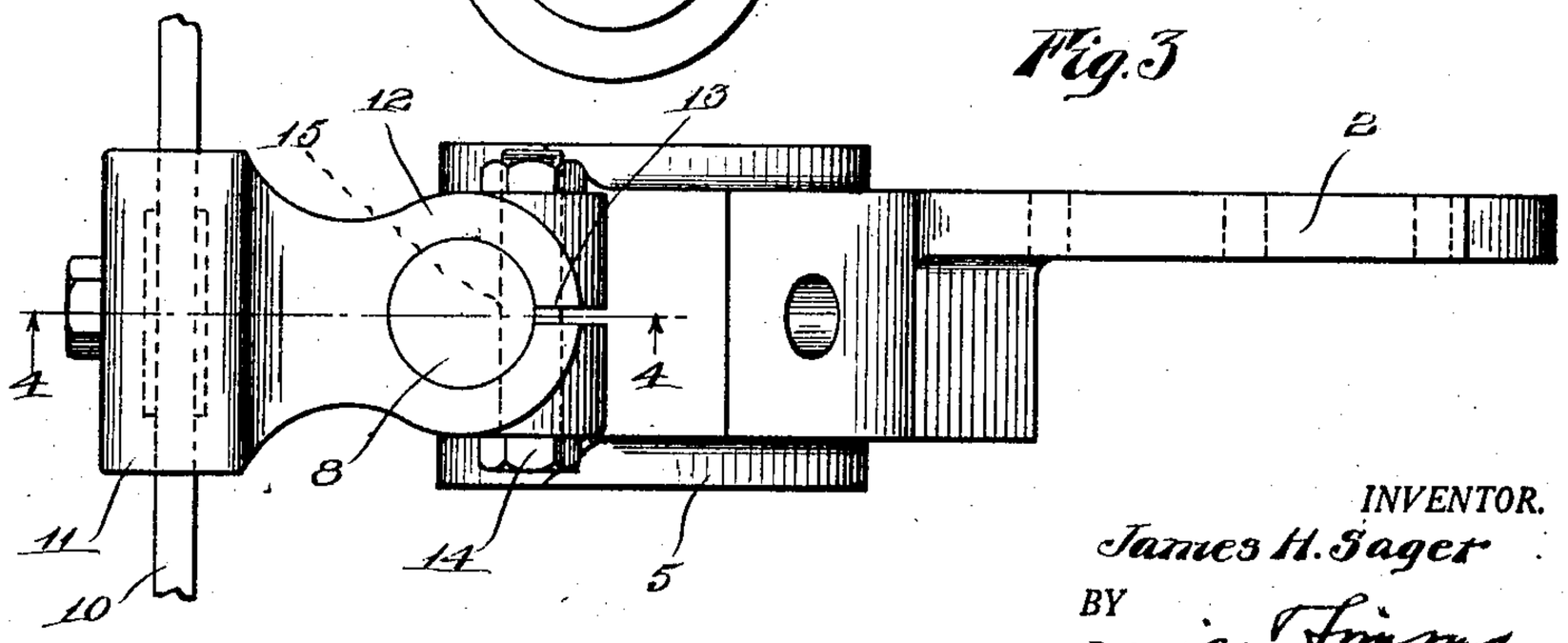


Fig. 2

Fig. 3



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Patented Nov. 18, 1924. 1,516,461

UNITED STATES PATENT OFFICE.

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AUTOMOBILE BUMPER.

Application filed May 21, 1923. Serial No. 640,359.

To all whom it may concern:

Be it known that I, JAMES H. SAGER, a citizen of the United States, and resident of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Automobile Bumpers, of which the following is a specification.

The present invention relates to automobile bumpers and more particularly to the type in which the frame bars of the vehicle are equipped with devices for the purpose of eliminating the clamping and the adjusting means usually required for securing a bumper supporting means to the vehicle. An object of this invention is to so construct devices on the frame bars that greater strength may be secured in said devices, while making it possible to impose a thrust on the frame bars in direct line with said bars. Another object of the invention is to provide the brackets that are secured in the ends of the frame bars and to which the springs are secured, with projections to which the bumper may be secured, said projections being so situated that the proper position of the bumper may be obtained, while, at the same time, imposing upon the frame bars the thrust in the proper direction.

To these and other ends, the invention consists of certain parts and combinations of parts, all of which will be hereinafter described, the novel features being pointed out in the appended claims.

In the drawings:

Fig. 1 is a plan view of the ends of the two side bars with a bumper secured thereto in accordance with this invention;

Fig. 2 is an enlarged detail view of one end of one of the side bars, showing the manner in which a bumper is secured thereto;

Fig. 3 is a plan view of the parts shown in Fig. 2; and

Fig. 4 is a section on the line 4—4, Fig. 3.

Referring more particularly to the drawings 1 indicates the side bars which are of channel construction and have their forward ends curved downwardly. In each of these side bars a bracket is secured to which the ends of the front springs are bolted, as in the usual manner. These brackets each have a portion 2, bolted in a channel at 3 and 4 and a portion 5 projecting forwardly beyond the end of the channelled side bar and downwardly therefrom and provided with an opening 6 in which the spring shackle bolt is fastened. The portion 5 is provided with an upwardly projecting portion 7 which is reduced at its upper end at 8, thereby providing a shoulder 9 about the projecting portion. This projecting portion lies in the plane of the side bar and has its center line preferably in advance of the center line of the opening 6, the shoulder 9 being below the rearmost portion of the portion 5 of the bracket. By this arrangement the bumper is permitted to lie low on the vehicle and, at the same time, the thrust on each projection is in line with the side bar.

The bumper may be of any suitable construction, but, in this instance, it is in the form of a sheet metal resilient bar 10 to which inverted U shaped clamps 11 are secured, each of which has, in this instance, a rearwardly extending portion for securing the same to the bracket projection. The rearwardly extending portion is preferably in the form of a sleeve 12, split at 13 and having its opposite sides connected by a bolt 14 which partially lies in the transverse groove 15 at the reduced portion 8 of the projection, in order to prevent the sleeve being withdrawn from the reduced portion except by removal of the bolt 14.

From the foregoing it will be seen that there has been provided a projection on the bracket that is secured to the downwardly turned end of the side bar of a motor vehicle so that it is possible for an automobile manufacturer to provide as a permanent part of the vehicle means by which a bumper may be adapted to the vehicle so as to eliminate the expense of a clamp, and adjusting means for the bumper. This bumper securing means is inexpensive to manufacture, being formed at the same time that the spring securing bracket is formed. It is so positioned that the stresses due to the impact on the bumper are in direct line with the side bars. Furthermore, it is so positioned that it permits the bumper to be located at the proper height with reference to the ground.

What I claim as my invention and desire to secure by Letters Patent is:

1. In combination with a channelled frame bar having a curved forward end, a bracket secured in said channelled frame bar and projecting therefrom in a downward direction and having a transverse opening through which the bolt of a spring shackle is adapted to be passed, said bracket having an integral projection extending upwardly therefrom in line with the channelled bar.

2. In combination with a channelled frame bar having a curved forward end, a bracket secured in the end of said channelled frame bar and projecting downwardly therefrom, said bracket having a transverse opening through which a bolt of a spring shackle may be passed and said bracket also having an integral bumper attaching projection extending upwardly therefrom, the center line of said projection being in advance of the center line of the opening in the bracket.

3. In combination with a channelled frame bar having a curved forward end, a bracket secured in the end of said curved end of the channelled frame bar and projecting forwardly and downwardly therefrom, said bracket having a transverse opening in which a bolt of a spring shackle is adapted to be secured, said bracket also having a projection extending upwardly therefrom and formed with a reduced portion provided with a shoulder situated below the uppermost part of the projecting portion of the bracket.

4. In combination with a channelled frame bar having a curved forward end, a bracket secured in said curved forward end of the frame bar and projecting forwardly and downwardly therefrom, said bracket being provided with a transverse opening in which the bolt of a spring shackle is adapted to be received and said bracket also having an integral projection extending upwardly therefrom, the center of said projection being in advance of the center of the opening and said projection being in line with the channelled frame bar.

5. In combination with a channelled frame bar having a curved forward end, a bracket secured in said curved forward end of the frame bar and projecting forwardly and downwardly therefrom, said bracket being provided with a transverse opening in which the bolt of a spring shackle is adapted to be received and said bracket also having a projection extending upwardly therefrom, the center of said projection being in advance of the center of the opening and said projection being in line with the channelled frame bar, and having a reduced portion forming a shoulder situated below the uppermost portion of the projecting part of the bracket.

JAMES H. SAGER