T. R. PALMER.

MOTOR CYCLE HAND GRIP.

APPLICATION FILED AUG. 14, 1913.

1,096,264. Patented May 12, 1914.

Fig. 1.

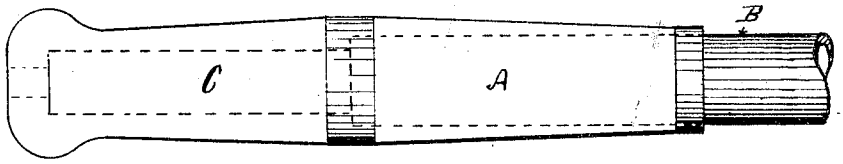


Fig. 2.

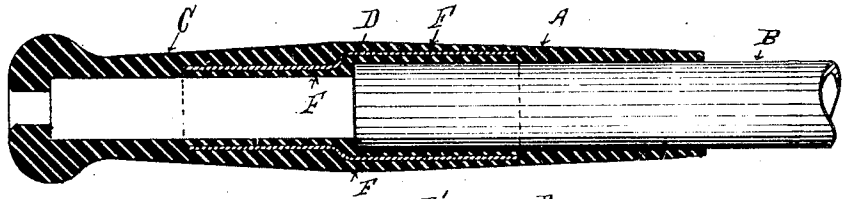


Fig. 3.

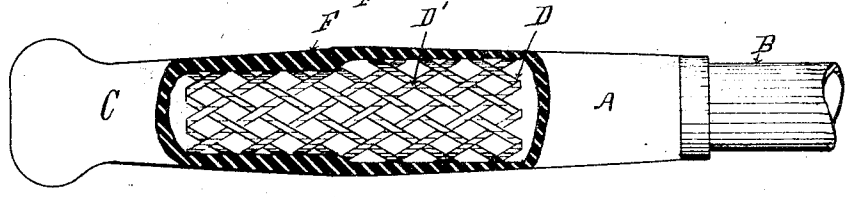


Fig. 4.

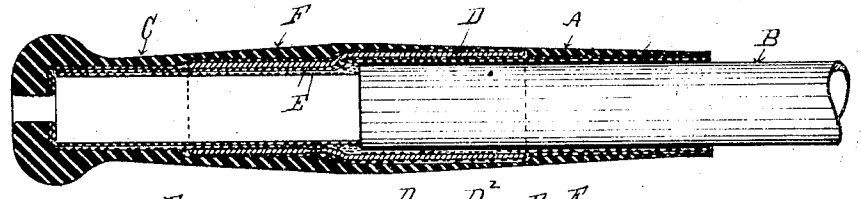


Fig. 5.

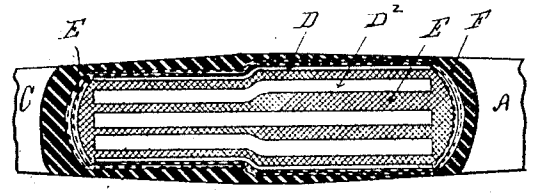
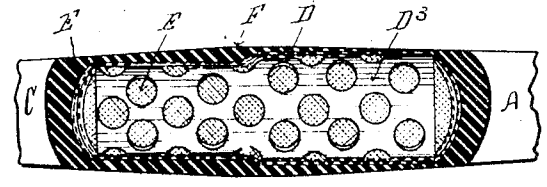


Fig. 6.



Witnesses.

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UNITED STATES PATENT OFFICE.

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MOTOR-CYCLE HAND-GRIP.

1,096,264. Specification of Letters Patent. Patented May 12, 1914.

Application filed August 14, 1913. Serial No. 784,814.

To all whom it may concern:

Be it known that I, THERON R. PALMER, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Motor-Cycle Hand-Grips; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, forming part of this specification.

My invention relates to handle-grips for motor-cycles of the type commonly used; in which a portion of the grip telescopes over the end of the metal handle-bar of the motor-cycle and the remainder, approximately one-half of the length of the grip, extends beyond the end of the metal handle-bar. This type of hand-grip has been developed to minimize the effect of the great vibration upon the hands of the rider, caused by the weight of the machine and high speed at which motor-cycles are ordinarily operated. These hand-grips have, however, been subjected to frequent breakage at the point where the metal handle-bar of the motor-cycle ends, and the object of my invention is to overcome this breakage, and yet make the hand-grip sufficiently flexible to be satisfactory in operation. To accomplish this result I place in the hand-grip a reinforcing material, preferably of metal, which overlaps the point where the metal handle-bar ends for a short distance in each direction therefrom; thereby so strengthening the grip that breakage at that point is practically eliminated; while the flexibility of the part of the grip extending beyond the end of the metal handle-bar is not so materially decreased by said reinforce as to materially reduce its efficiency.

The features of my invention are hereinafter set forth and explained, and are illustrated in the accompanying drawings, in which:—

Figure 1, is a view in elevation of my improved hand-grip, and a section of the handle-bar upon which it is mounted. Fig. 2, is a view showing a longitudinal section of one form of construction of my improved hand-grip with the handle-bar in elevation. Fig. 3, is a view in elevation of the same, with a portion of the hand-grip broken away showing one form of reinforcing material therein. Fig. 4, is a view showing a longitudinal section of another form of construction of my improved hand-grip, and a section of the handle-bar upon which it is mounted. Figs. 5, and 6, show sections of my improved hand-grip with parts broken away, showing different forms of reinforcing material used therein.

In these drawings illustrating my invention, Figs. 1 and 2, I have shown the hand-grip as made of vulcanized rubber, with a sleeve portion A, telescoping over the end of a handle-bar B, and with a grip-portion C, of approximately one-half of the length of the entire structure, extending outward beyond the end of the handle bar B, in the usual manner. In the central portion of this hand-grip A C, I place a reinforcing material D, preferably metal, which is vulcanized into the body of the hand-grip so as to extend a short distance each way from the end of the handle-bar B, and operates to prevent the breakage of the hand-grip at and over the end of the handle-bar B. This reinforcing material D, is made preferably of metal and in any convenient shape; for example, of spirally woven metal strips D′, as illustrated in Fig. 3; of longitudinal strips, D^2, as illustrated in Fig. 5; or of a perforated metal tube D^3, as illustrated in Fig. 6. I, however, prefer the form D′, of woven metal strips, although I do not limit myself to the use of a reinforce of any particular material or of any particular form.

In the manufacture of my improved hand-grip, I have found it desirable to construct it of layers of rubber coated and permeated cloth or canvas E, and rubber F, with the reinforce D, inserted at any convenient point therein, the whole being formed up to fit the mold in which the hand-grip is to be vulcanized, and in which the structure forming the hand-grip is finally completed by vulcanization in the usual manner in which rubber goods are made.

It is obvious from the foregoing, that in the construction of my improved hand-grip, that I can make the body of the hand-grip either of rubber alone, with the reinforcing material D, embedded therein, before vulcanization, and the whole then vulcanized into the completed structure, or I can build up the body of the hand-grip of layers of rubber F, and rubber permeated and coated

cloth or canvas E, in the usual manner of making rubber goods, with the reinforcing material D, inserted therein at such point as may be desired, and the whole then vulcanized together into the complete structure, without departing from the spirit of my invention.

I am aware that ordinary bicycle handle-bar grips, and other tool handle-grips have been made of rubber with a spiral metal reinforcing material embedded therein; but in all these cases the end of the metal reinforce was secured directly to the end of the metal bicycle handle bar, or to the metal tool handle, and in no sense operate the same or perform the same function as does applicant's reinforce in his improved handle-bar grip.

Having thus described my invention so as to enable others skilled in the art to which it appertains, to construct and utilize the same, what I claim as new and desire to secure by Letters-Patent, is:—

1. In a hand-grip for motor cycle handle-bar, the combination of a sleeve portion adapted to be placed upon a handle-bar, a hand-grip portion extending longitudinally from the end of said sleeve portion beyond the end of the handle-bar, a longitudinally non-elastic reinforce embedded in the wall of said sleeve and hand-grip portions, substantially as and for the purpose set forth.

2. In a hand-grip for motor-cycle handle-bar, the combination of a sleeve portion adapted to be placed upon a handle-bar, a hand-grip portion extending longitudinally from the end of said sleeve portion beyond the end of the handle-bar, a reinforce composed of longitudinally non-elastic elements extending substantially longitudinally of said sleeve and hand-grip portions, said elements being embedded in the wall thereof in spaced relation to each other, substantially as and for the purpose set forth.

3. In a hand-grip for motor-cycle handle-bar, the combination of a sleeve portion adapted to be placed upon a handle-bar, a hand-grip portion extending longitudinally from the end of said sleeve portion beyond the end of the handle-bar, a reinforce composed of longitudinally non-elastic inclined elements and in spaced relation to each other embedded in the wall of said sleeve and hand-grip portions, substantially as set forth.

4. In a hand-grip for motor cycle handle-bar, the combination of a sleeve portion adapted to be placed upon a handle-bar, a hand-grip portion extending longitudinally from the end of said sleeve beyond the end of the handle-bar, a reinforce composed of longitudinally non-elastic elements embedded in the wall of said sleeve and hand-grip portions in opposite inclinations and in spaced relation relative to each other, substantially as and for the purpose set forth.

In testimony whereof I affix my signature, in presence of two witnesses.

THERON R. PALMER.

Witnesses:
E. E. MYERS,
P. V. GIFFORD.