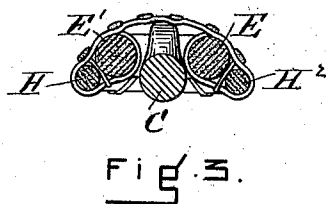
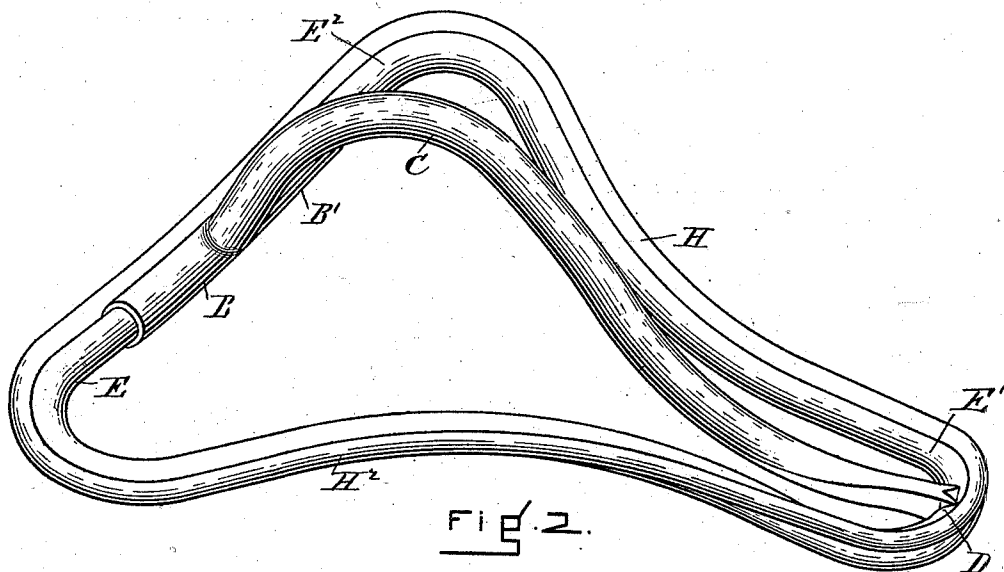
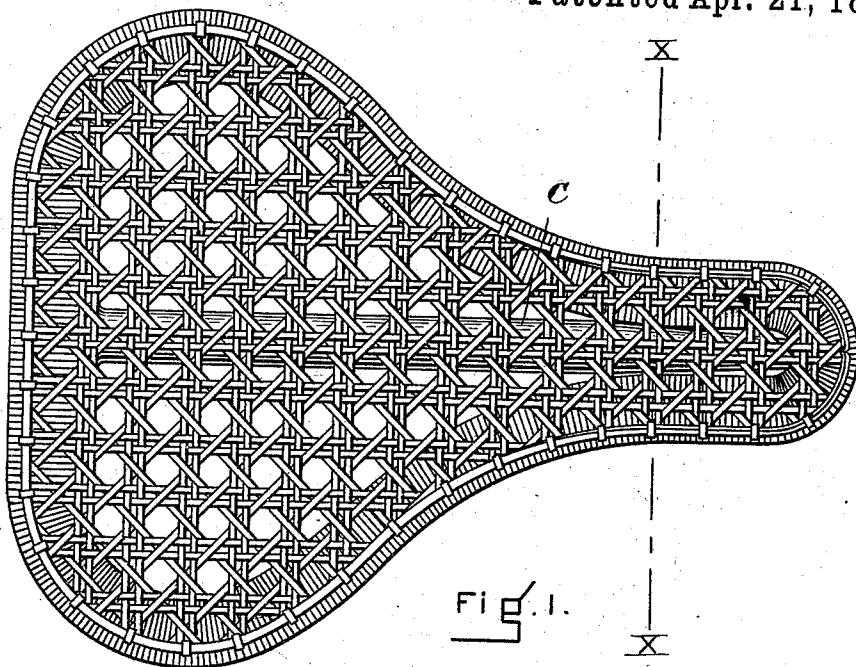


(No Model.)

F. E. GRANGER.
SADDLE FOR BICYCLES.

No. 558,917.

Patented Apr. 21, 1896.



WITNESSES.
Frank B. Parker.
Geo. S. Lee.

INVENTOR
Frank E. Granger

UNITED STATES PATENT OFFICE.

FRANK E. GRANGER, OF MALDEN, MASSACHUSETTS, ASSIGNOR TO THE
GRANT MANUFACTURING COMPANY, OF BOSTON, MASSACHUSETTS.

SADDLE FOR BICYCLES.

SPECIFICATION forming part of Letters Patent No. 558,917, dated April 21, 1896.

Application filed October 12, 1895. Serial No. 565,506. (No model.)

To all whom it may concern:

Be it known that I, FRANK E. GRANGER, of Malden, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Saddles for Bicycles, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to the particular construction of saddles for bicycles, the object being to so construct the saddle that it shall be light, yielding, and open to the free circulation of air. This object I attain by the construction and arrangement shown in the accompanying drawings, in which—

Figure 1 is a plan of the saddle. Fig. 2 is a view in perspective showing the framework of the saddle, viewed from the under side. Fig. 3 is a cross-section taken on line X X of Fig 1.

The body part of my saddle is of woven cane, as shown. The frame is partly of reed or rods of flexible wood and partly of metal in the form of tubing, and is constructed as follows: A metal tube B B', preferably steel, is used as a head-piece. This tube has firmly connected to it, by welding, brazing, or some other suitable means, a second tube C, forming the mid-rib, bent as shown and having a hole at D. The part E E' E² may be made of reed or of flexible wood properly treated. This piece is softened and made flexible by steam or otherwise, and is then bent into about the shape desired. It is then united to the metallic part B B' by passing one end through the hole at D in the end of the piece C, and then

forcing the ends E and E², respectively, into the ends B and B' of the tube B B', as shown in Fig. 2. The ends E E² may be cemented or otherwise fastened to the tube B B'.

In the act of weaving the body of the saddle a second reed or, if preferred, a rod of flexible wood H H² is joined to the reed E E' E², so as to stiffen the body of the saddle and give strength to the whole. The outer reed H H' H² may be nailed or pinned to the inner reed E E' E² to give additional strength to the outside frame.

In Fig. 1 the saddle is shown complete, the weaving being of a simple pattern. If desired, more ornamental designs may be introduced, and the cane may be replaced by threads or cords of cotton, wool, or silk, or the weaving may be partly of thread or cord.

I claim—

In a bicycle-saddle a frame consisting of a bent reed adapted to form the outer part and united to a metal tube having a head-piece adapted to receive and hold the ends of the said reed as described, and a curved central mid-rib firmly attached to the said head-piece, and an interwoven body part substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 12th day of September, A. D. 1895.

FRANK E. GRANGER.

Witnesses:

FRANK G. PARKER,
GEO. S. LEE.