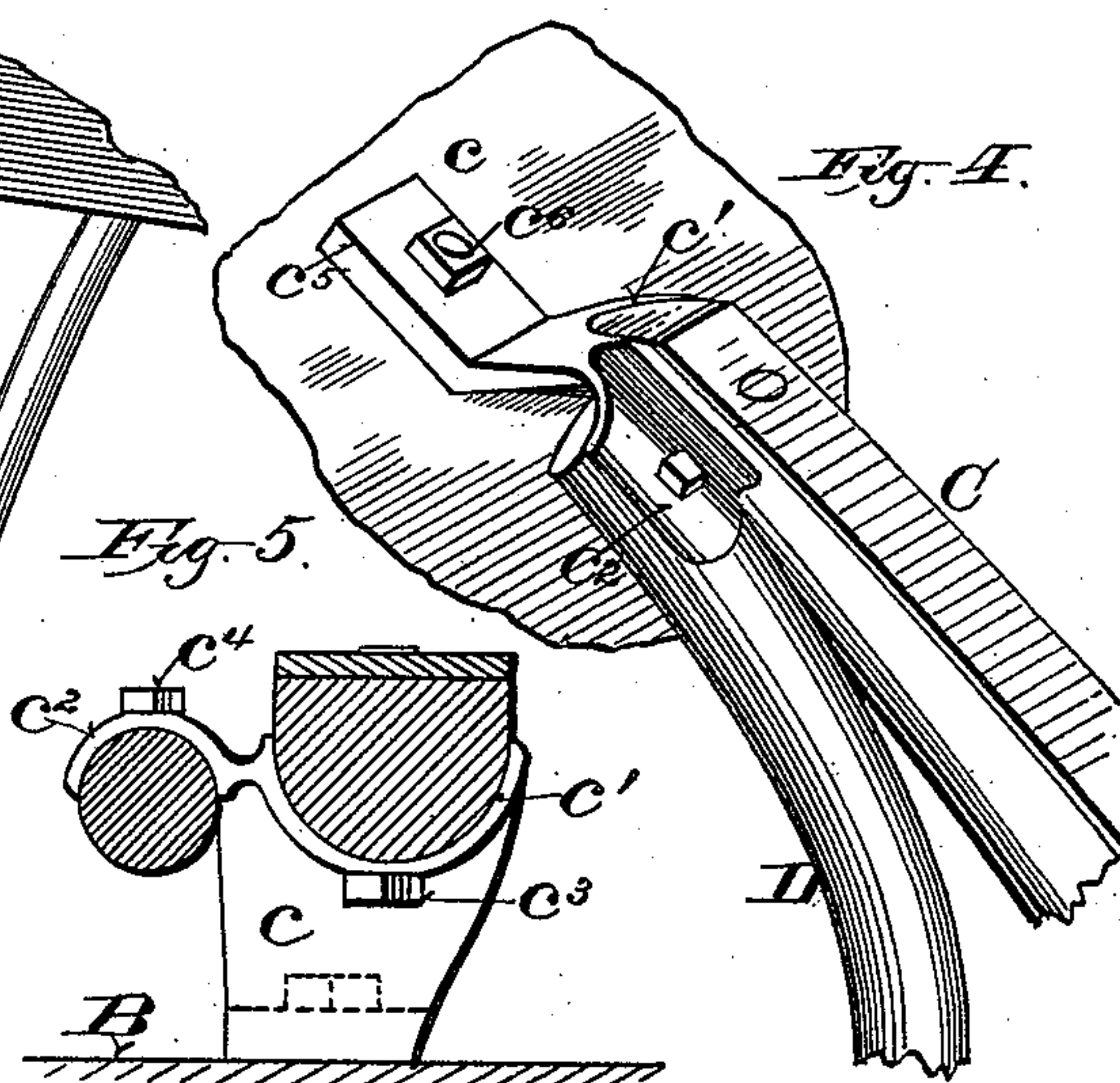
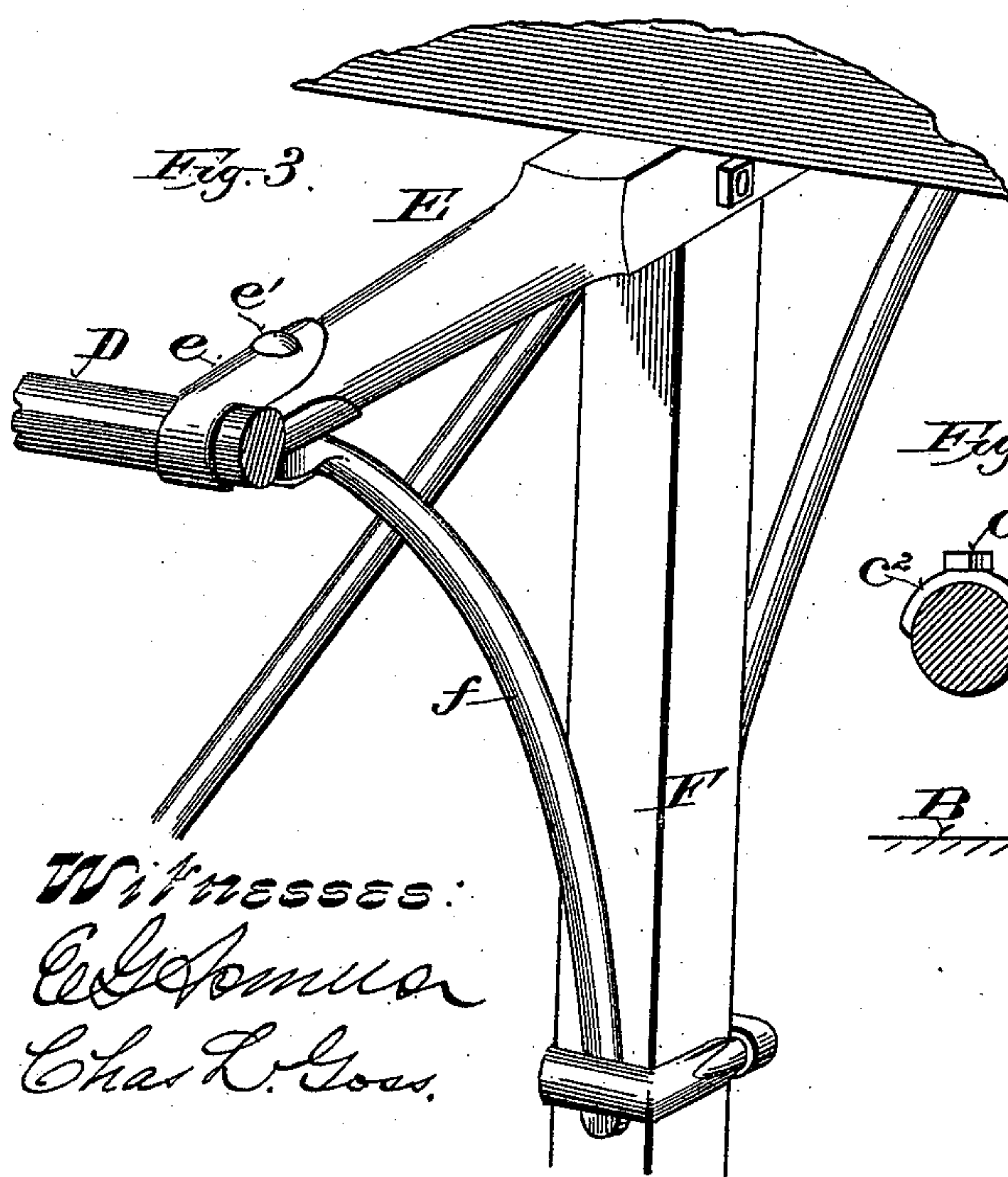
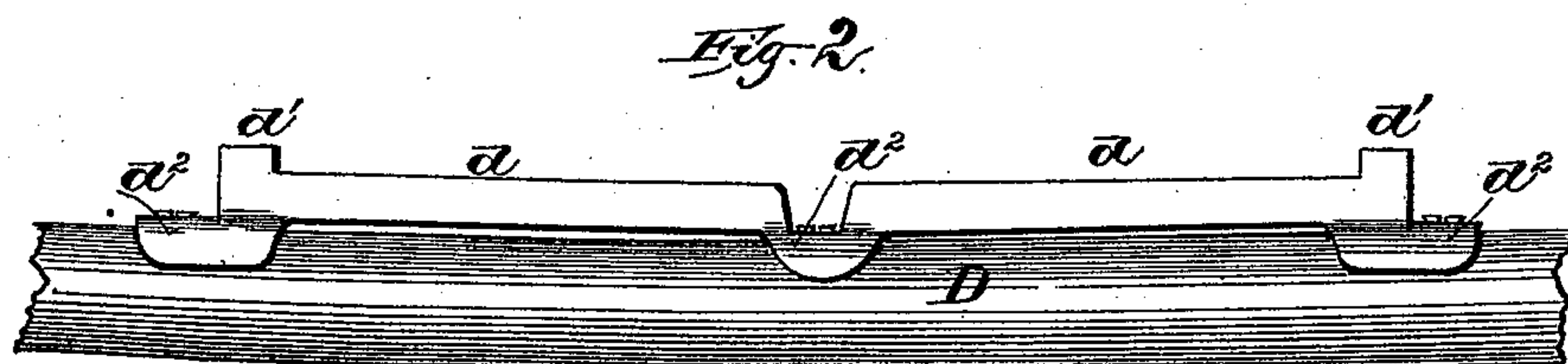
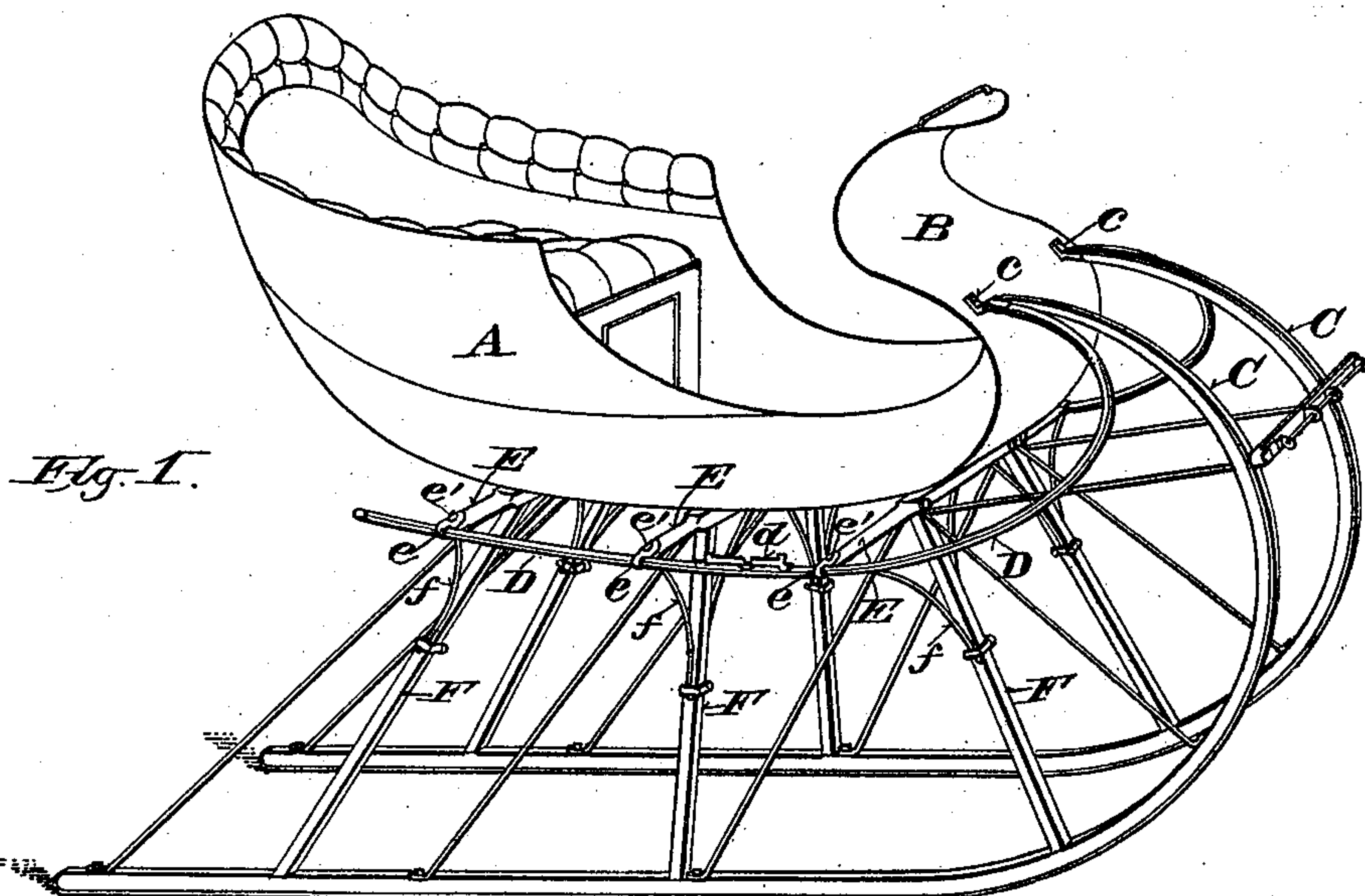


(No Model.)

J. A. CHAPMAN.
SLEIGH.

No. 486,368.

Patented Nov. 15, 1892.



Witnesses:
Ed. G. Jones
Chas. L. Goss.

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UNITED STATES PATENT OFFICE.

JOHN A. CHAPMAN, OF MILWAUKEE, WISCONSIN.

SLEIGH.

SPECIFICATION forming part of Letters Patent No. 486,368, dated November 15, 1892.

Application filed April 2, 1888. Serial No. 269,237. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. CHAPMAN, of the city and county of Milwaukee, and State of Wisconsin, have invented certain new and useful Improvements in Sleighs; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The main objects of my invention are to provide a neat, strong, and cheap means of fastening the fenders to the beams, to provide a neat finish for the front ends of the fenders and runners and a strong easily-applied attachment of the same to the dash, and to provide a readily-attachable scraping-iron and fender-guard.

It consists, essentially, of metallic loops passing over or around the fenders and secured in any convenient manner to the projecting ends of the sleigh-beams, of nose-irons, each provided with seats for the front ends of the runner and fender and with a foot or flange for attachment to the dash, and of a scraping-iron and fender-guard provided with feet for its attachment to the fender and with projections to prevent the foot from slipping therefrom over the ends.

In the accompanying drawings like letters designate the same parts in the several figures.

Figure 1 is a perspective view of a sleigh to which my improvements are applied. Fig. 2 is a detail, on an enlarged scale, of the scraping-iron and fender-guard. Fig. 3 is a perspective detail of the fender-fastening and of the parts associated therewith. Fig. 4 is a like view of the nose-iron by which the fender and runner are attached to the dash; and Fig. 5 is a cross-section of the runner and fender, showing in elevation the lower end of said nose-iron.

Heretofore sleigh-fenders have been attached to the beams by mortises and tenons, which necessitate the employment of fenders of considerable size, at least at the points where the mortises are formed therein, and which require considerable time and are consequently expensive to make, or without forming mortise-and-tenon joints fenders have been attached to the beams by bolts, rivets, or

screws passing through the same, leaving the ends of the beams exposed and presenting a clumsy unfinished appearance.

With my improved fastening a light graceful fender may be employed, which covers the ends of the beams and serves, with the fastening, to impart a neat finished appearance to the work, while the fastening proper is strong, inexpensive, and easily applied.

Referring to Figs. 1 and 3 of the drawings, A represents the sleigh-body, B the dash, C C the runners, E E the beams, and F F the knees, which may be of any well-known style, construction, and finish.

D D are the fenders, which for lightness, appearance, and facility of manufacture I prefer to make round and of uniform size from end to end. They are bent at their front ends upward and backward and, with the front ends of the runners C C, are attached to the dash B.

e e are metallic loops bent snugly around the fenders D D and adapted at the ends to the upper and under sides of the ends of the beams E E, to which they are secured by bolts e' e', passing through vertical perforations therein, thus firmly holding said fenders against the ends of the beams E E, concealing the same and affording a simple neat finish therefor. The same bolts e' e' pass through the upper ends of the braces f f and secure them to the ends of the beams E E.

c c are metallic tips or nose-irons, each formed with two seats c' c', adapted, respectively, to the ends of the runners C and fender D, which are secured thereto by rivets or bolts c³ c⁴, as shown most clearly in Figs. 4 and 5. They are also each formed with a perforated flange or foot c⁵, which is firmly attached to the dash B by a bolt c⁶. These fastenings not only firmly hold the ends of the runners and fenders together and secure them to the dash, but also afford a neat finish and prevent the splitting or mutilation of the ends of the runners and fenders and of the dash at the points of attachment.

Referring to Fig. 2, d represents the scraping-iron or fender-guard, formed with perforated feet d² d², fitted and attached to the fender D by screws, rivets, or bolts. It is preferably provided with three such feet, one at each end and one at the center, where it is made slightly flexible, so as to conform read-

ily to any irregularity of the fender. It is also provided at the ends with upturned projections *d' d'*, which prevent the foot from slipping sidewise over the ends of said scraping-iron upon the fender.

Heretofore fenders have been provided for the greater part of their length with flat metallic guards, upon which the foot of a person stepping thereon is liable to slip, and scrapers when employed have usually been separate parts attached to the runners or parts of the running-gear of the sleigh other than the fender.

I claim—

1. The combination, in a sleigh, with the beams projecting beyond the sides of the body, of fenders uniformly round from end to end and metallic loops placed around said fenders and severally secured to the ends of said beams, substantially as and for the purposes set forth.

2. The combination, in a sleigh, with the runners and fenders, of metallic tips, each formed with seats for the reception of the front ends of a runner and fender, which are secured

thereto and firmly held together thereby, substantially as and for the purposes set forth.

3. The combination, in a sleigh, with the dash, runners, and fenders, of metallic fastening-tips, each formed with seats for the front ends of a runner and fender, the seat for the runner opening forwardly and the seat for the fender opening rearwardly and provided with a foot for attachment to the dash, substantially as and for the purposes set forth.

4. The combination, in a sleigh, with a rounded fender, of a metallic scraper provided with concaved feet adapted to said fender and serving as a guard therefor, said scraper having an intermediate break and an adjacent foot, whereby it is made slightly flexible to conform to said fender, substantially as and for the purposes set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOHN A. CHAPMAN.

Witnesses:

CHAS. L. GOSS,
JOSEPH LOCH.