

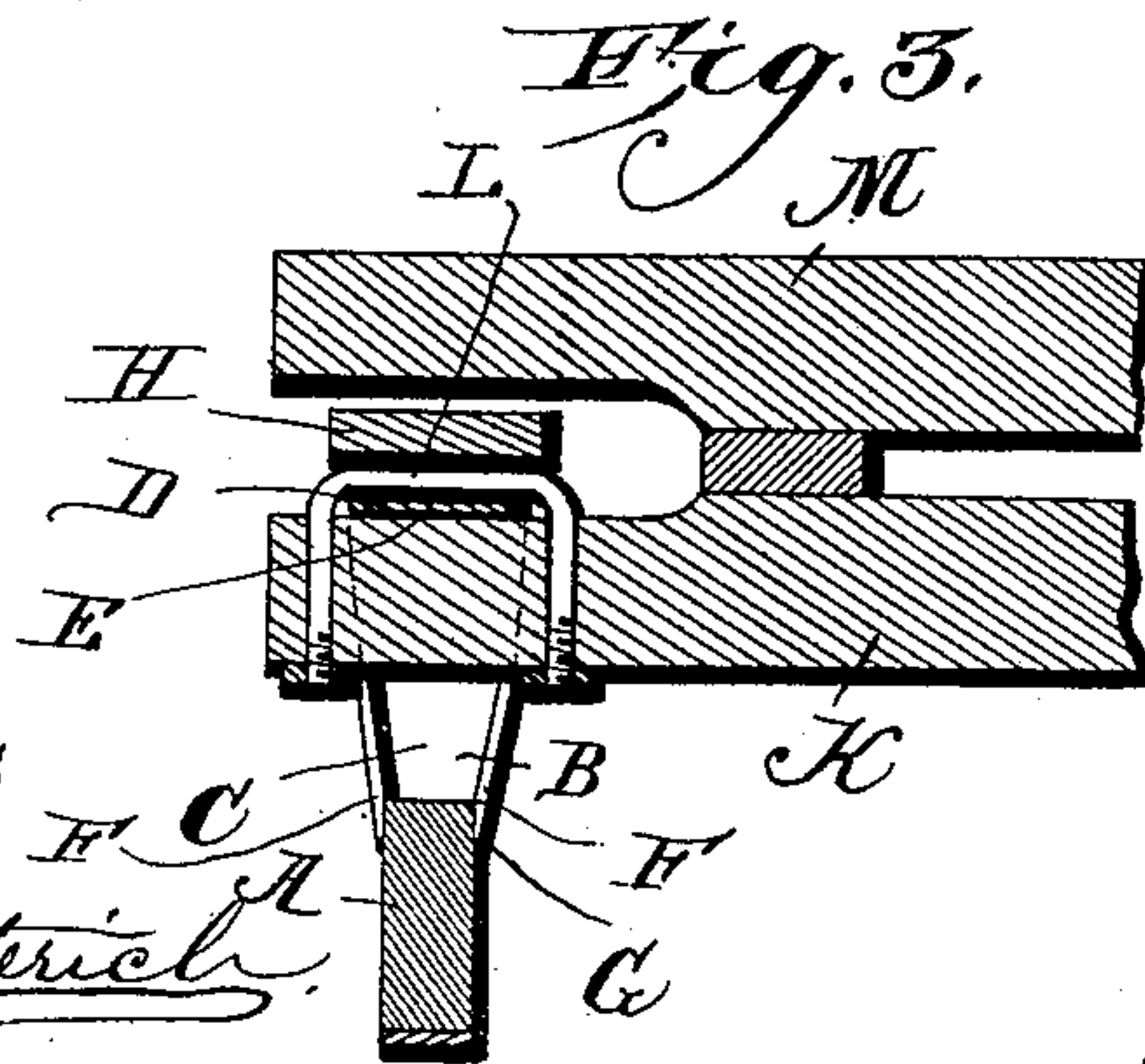
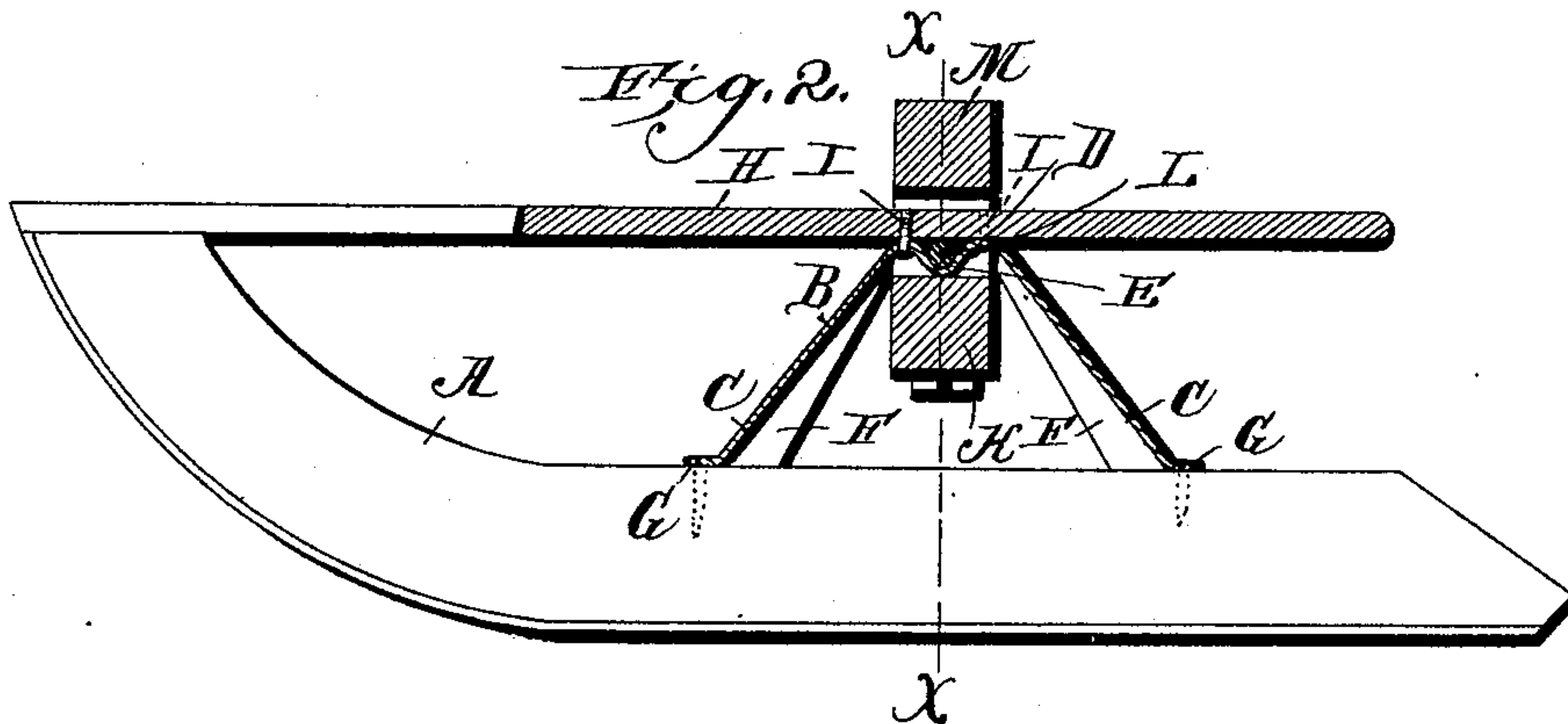
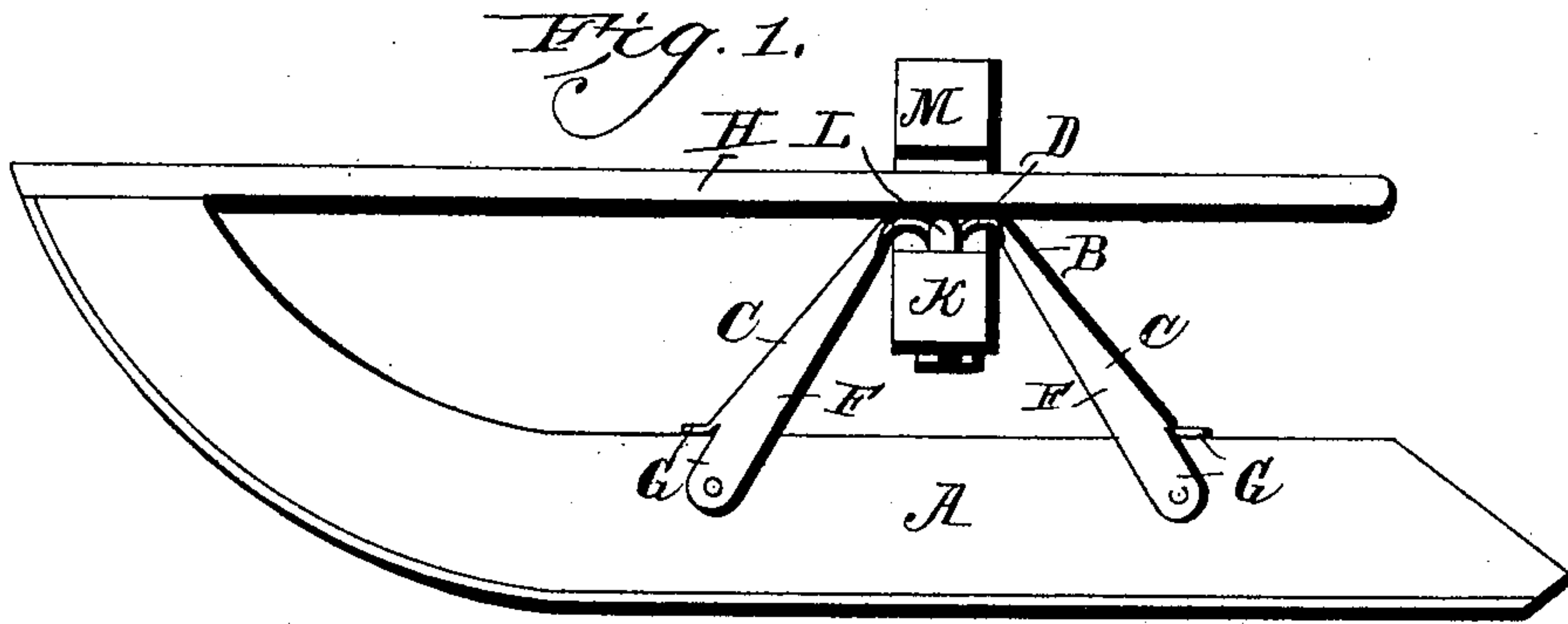
(No Model.)

N. H. & J. H. BLOOM.

BOB SLEIGH.

No. 390,747.

Patented Oct. 9, 1888.



WITNESSES

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UNITED STATES PATENT OFFICE.

NICKLAS H. BLOOM AND JOSEPH H. BLOOM, OF CHARLES CITY, IOWA.

BOB-SLEIGH.

SPECIFICATION forming part of Letters Patent No. 390,747, dated October 9, 1888.

Application filed June 14, 1888. Serial No. 277,033. (No model.)

To all whom it may concern:

Be it known that we, NICKLAS H. BLOOM and JOSEPH H. BLOOM, citizens of the United States, residing at Charles City, in the county of Floyd and State of Iowa, have invented new and useful Improvements in Bob-Sleighs, of which the following is a specification.

Our invention relates to improvements in bob sleighs; and it has for its object to provide a neat, light, and easily applied knee which is capable of withstanding great strain; and, further, to provide improved means of attaching the bolster and beam to the knee.

With these objects in view the invention consists in a certain novel construction and arrangement of devices, fully set forth hereinafter in connection with the accompanying drawings, wherein—

Figure 1 is a side view of the improved sleigh. Fig. 2 is a longitudinal vertical section through the knee. Fig. 3 is a transverse section on line *x x* of Fig. 2.

Referring by letter to the drawings, A designates the runner, and B designates the knee attached thereto, and comprising the converging legs C C, the plate D at the upper ends of the legs and connecting the same, and the depending loop E at the center of the said plate, and preferably formed integral therewith. The legs are flat at and near their upper ends, and they are rounded at their lower ends by bending their edges inward, (toward the center of the knee,) thus forming flanges F F. The lower ends of the legs are provided with the ears G G, which are provided with apertures, through which are passed screws or nails to secure the same to the runner.

The rave H is attached at its front end to the upturned front end of the runner, and is attached near its rear end to the plate D, at the upper end of the knee, by means of the through-bolts I I.

K represents the beam which hangs between the legs of the knee, and is provided on its upper side with a keeper, L, engaging in the depending loop E. The bolster M is attached at its ends to the beam and passes over the rave at such a distance as to allow the latter free rocking or oscillatory movement.

The advantage of attaching the rave rigidly to the runner and to the upper end of the knee, as above described, is that the knee is braced or supported and the strain in pulling comes upon the top and bottom of the same. Further, the said rave may be readily detached.

The advantage in supporting the beam between the converging legs of the knee is that the sleigh may be built lower or closer to the ground, and therefore there is less lateral strain on the knee and the runner. Further, when the runner passes over uneven surfaces, it more quickly and easily accommodates itself to the inequalities when the weight hangs from the knee and there is much less friction between the parts. Further, when the weight hangs from the upper end of the knee, the reach, or perch, or connection between the two sections of the sleigh, need not be as firmly attached thereto.

The advantage in forming the legs of the knee in the peculiar manner described is that, although they are light, they are strong and will stand a great weight and also severe forward and backward strain. The greatest strain on the legs of the knee is forward and backward, and in this direction they are well braced.

Having thus described our invention, we claim—

1. In a bob-sleigh, the combination, with the runner, of the knee having the converging legs C C secured at their lower ends to the runner, the integral depending loop between the upper ends of the legs, and the beam arranged between the legs of the knee and provided on its upper side with a keeper engaging the depending loop, substantially as specified.

2. In a bob-sleigh, the combination, with the runner, of the flat metallic knees comprising the converging legs C C, connected together at their upper ends and attached to the runner at their lower ends, the edges of the said legs being bent forward and rearward to form bracing or strengthening flanges F, and the beam suspended loosely between the legs of the knee, substantially as specified.

3. In a bob-sleigh, the combination, with the runner, of the flat metallic knee comprising

the integral legs C C, connected at their upper
ends by an integral plate, D, having a trans-
verse depending loop, E, the said legs being
provided with the integral forwardly and rear-
5 wardly bent flanges F F and the integral ears
G G, secured to the runner, and the beam ar-
ranged between the legs C and provided with
a keeper, L, engaging the loop E, all substan-
tially as and for the purpose specified.

In testimony that we claim the foregoing as 10
our own we have hereto affixed our signatures
in presence of two witnesses.

NICKLAS H. BLOOM.
JOSEPH H. BLOOM.

Witnesses:

W. W. DENNIS,
A. W. DENNIS.