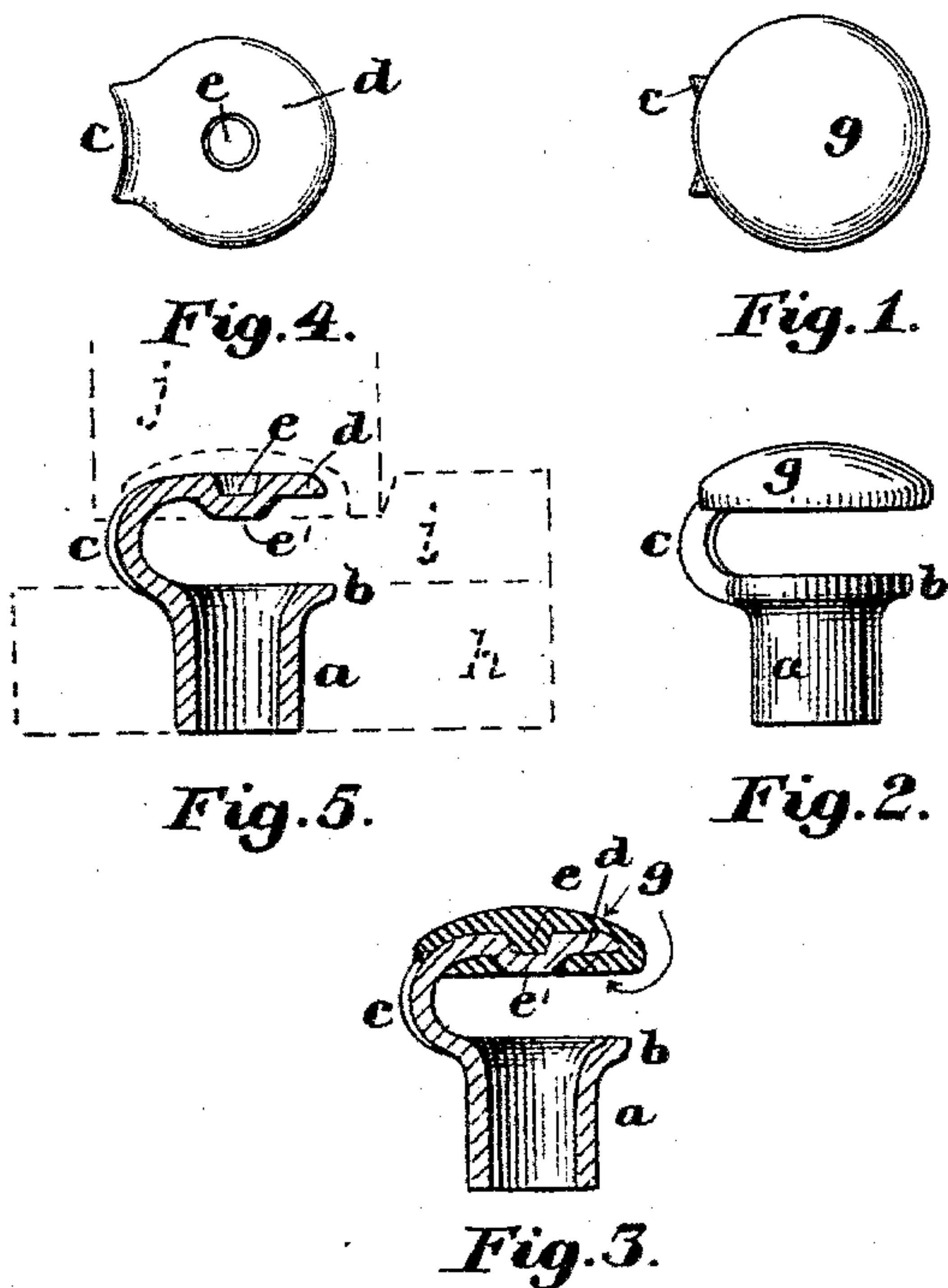


(No Model.)

E. KEMPSHALL.
LACING HOOK.

No. 571,596

Patented Nov. 17, 1896.



Witnesses:
Walter E. Lombard
H. Theodore Fletcher.

Inventor:
Eleazer Kempshall,
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Attorney.

UNITED STATES PATENT OFFICE.

ELEAZER KEMPSHALL, OF NEW YORK, N. Y., ASSIGNOR TO THEOPHILUS KING, TRUSTEE, OF BOSTON, MASSACHUSETTS.

LACING-HOOK.

SPECIFICATION forming part of Letters Patent No. 571,596, dated November 17, 1896.

Application filed October 4, 1894. Serial No. 524,892. (No model.)

To all whom it may concern:

Be it known that I, ELEAZER KEMPSHALL, of New York, in the county of New York and State of New York, have invented a new and
5 useful Improvement in Lacing-Hooks, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to lacing-hooks, and especially to that class of such hooks in which
10 the outer disk or head of the metal hook is inclosed in an envelop or covering of pyroxylin or other similar material capable of being molded while in a plastic state and then becoming hard; and it consists in certain novel
15 features of construction, arrangement, and combination of parts which will be readily understood by reference to the description of the drawings and to the claims hereto appended and in which my invention is clearly
20 pointed out.

Figure 1 of the drawings is a plan of a finished lacing-hook embodying my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a vertical section of the same, the cutting-plane being on line 2 2 on Fig. 1; and
25 Figs. 4 and 5 are respectively a plan and a vertical section of the metal body of the hook before the plastic covering is applied to its head.

30 The hook shown in the drawings has its body formed from sheet metal and is provided with the eyelet-like shank *a*, the flange *b* to rest upon the surface of the material to which it is applied, the curved neck *c*, and
35 the outer disk or head *d*, in the upper surface of which is formed near its center the indentation *e*, formed by throwing down a portion of the metal of the head below the lower surface of the main body of said head,
40 so as to form the downwardly-projecting hub or teat *e*, and *g* is the covering of plastic material applied to the head and molded to shape by pressure through the medium of suitable dies. (Shown in dotted lines in Fig. 5.)

45 As the plastic material from which the covering of the head is formed must be applied thereto by pressure, it is necessary that the head should be supported so as to prevent the neck of the hook being bent out of shape
50 and the head being depressed below its proper level. It is also essential that the covering

should inclose the edge of the head and extend beneath said head, so that there can be no possibility of the covering becoming detached from the metal of the hook, except by
55 pressure being applied thereto sufficient to crush the covering. This is readily accomplished by making the metal hook, as shown in the drawings, with the hub *e'* projecting downward from the under surface of the outer
60 head *d* a distance equal to the desired thickness of that portion of the covering which extends beneath the under surface of said head.

In applying the covering *g* to the head *d* of
65 the hook the shank *a* of the metal hook is set in a socket in a holder-plate *h*, and a plate *i* is inserted between the flange *b* and the under side of the hub *e'*, said plate being of a thickness at that portion thereof which is be-
70 tween the flange *b* and the head *d* just equal to the vertical distance between the upper surface of the flange *b* and the under surface of the hub *e'*, thus leaving an annular space surrounding said hub and between the plate
75 *i* and the under side of the main body of the head *d*, into which the plastic material is forced by the downward movement of the die *j*. (Shown in dotted lines in Fig. 5.)

What I claim as new, and desire to secure
80 by Letters Patent of the United States, is—

1. A lacing stud or hook the metal portion of which has a substantial central hub projecting below the under surface of the head and having the entire head excepting the
85 lower end of the projection, covered with pyroxylin or analagous plastic material, substantially as described.

2. A lacing-hook, the outer metal surface of the head of which is provided with an un-
90 cut indentation or hub struck downwardly therefrom and projecting below the under surface, in combination with an envelop or covering of plastic material, as pyroxylin, which covers the outer surface, the edge and
95 all but the central portion of the under surface of the head, substantially as described.

3. A lacing-hook blank, comprising a securing member, a head, a neck connecting said member and head, a hub projecting from
100 the under surface of the head, whereby said head may be supported above the die-plate

to enable the covering of plastic material to be molded thereon.

4. A lacing-hook comprising in its construction, a head, an attaching member, a neck
5 connecting said head and member, and means to separate said head from a die-plate, or anvil, whereby a covering of plastic material may be molded about the top and bottom of said head, substantially as and for the purpose set forth.
10

5. A lacing-hook comprising in its construction, a securing member, a head, a neck connecting said head and member, a part on the under side of said head to engage a die-plate,
15 and a covering of plastic material molded about said head, and extending under the

edge thereof, substantially as and for the purpose set forth.

6. A lacing-hook comprising in its construction, a securing member, a head, a neck connecting said member and head, and a die-engaging member upon said head, substantially as and for the purpose set forth. 20

In testimony whereof I have signed my name to this specification, in the presence of 25 two subscribing witnesses, on this 3d day of October, A. D. 1894.

ELEAZER KEMPSHALL.

Witnesses:

N. C. LOMBARD,

WALTER E. LOMBARD.