(No Model.)

M. N. BRAY.

LACING HOOK.

No. 548,512. Patented Oct. 22, 1895.

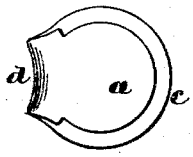

Fig. 4.

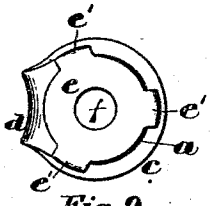

Fig. 9.

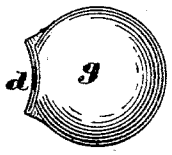

Fig. 1.

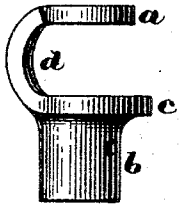

Fig. 5.

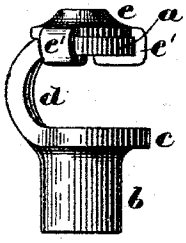

Fig. 10.

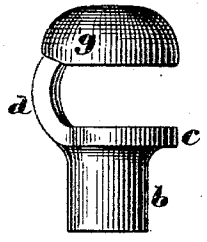

Fig. 2.

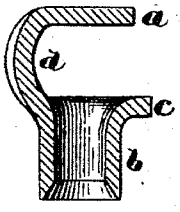

Fig. 6.

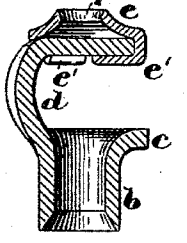

Fig. 11.

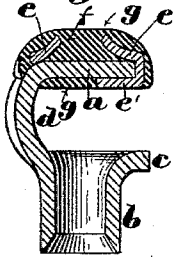

Fig. 3.

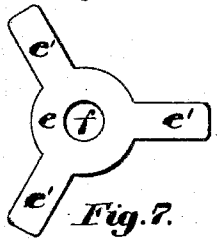

Fig. 7.

Fig. 8.

Witnesses:
Walter E. Lombard.
D. W. Andrews.

Inventor:
Mellen N. Bray,
by N. C. Lombard
Attorney.

UNITED STATES PATENT OFFICE.

MELLEN N. BRAY, OF BOSTON, MASSACHUSETTS.

LACING-HOOK.

SPECIFICATION forming part of Letters Patent No. 548,512, dated October 22, 1895.

Application filed August 24, 1895. Serial No. 560,363. (No model.)

To all whom it may concern:

Be it known that I, MELLEN N. BRAY, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and 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 to that class of such hooks in which the heads are covered with plastic material as pyroxylin or other similar material; and it consists in certain novel features of construction, arrangement, and combination of parts, which will be readily understood by reference to the description of the accompanying drawings and to the claim hereto appended, and in which my invention is clearly pointed out.

Figures 1, 2, and 3 are respectively a plan, a side elevation, and a central vertical section of a lacing-hook embodying my invention. Figs. 4, 5, and 6 are respectively a plan, a side elevation, and a central vertical section of the metal hook before the metal cap and plastic covering are applied thereto. Figs. 7 and 8 are respectively a plan and a section of metal cap as it appears before being applied to the head of the metal hook and Figs. 9, 10, and 11 are respectively a plan, a side elevation, and a vertical section of the metal hook with the metal cap secured thereon ready to receive the plastic covering.

In the manufacture of my improved lacing-hook, I first form a metal hook, as illustrated in Figs. 4, 5, and 6, having a plain flat head *a*, a tubular shank *b*, a flange *c*, and a neck *d*. I also cut from sheet metal the cap *e* with central opening *f* and a plurality of radiating arms *e' e'* and strike up the portion of said cap immediately surrounding said hole *f*, as shown in Fig. 8. The cap *e* is then placed upon the head *a*, and the arms *e'* are bent around the edge of said head and into close contact with the under side of said head, as shown in Figs. 9, 10, and 11. The plastic covering *g* is then applied to the capped head, completely enveloping said head and cap, except the under surface of those portions of the arms *e'* that are beneath the head *a* of the metal hook, the plastic material passing through the hole *f* and filling the space between the cap *e* and head *a* and between the arms *e'*, on the under side of the head *a*, to a level with the under sides of said arms *e'*, as shown in Fig. 3.

In applying the plastic material the lower sides of the clinched arms *e'* of the cap *e* rest upon a plate of metal inserted between them, and the upper surface of the flange *c* and the plastic material is molded to the desired shape and forced into the cavity beneath the head *e* and between the arms *f* beneath the head *a* by the downward movement of a suitably-shaped die in a well-known manner.

My invention is equally applicable to a hook made from sheet metal and having a shank that is perforated entirely through, as shown in the drawings, or a hook made from solid wire and having a shank, the hole in which extends only part way through the same.

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

In a lacing hook, the combination of a metal body provided with a solid or imperforated head; a metal cap having its central portion perforated and turned upward, and provided with a plurality of radiating arms or prongs bent around the edge of, and clinched under, said head, and a covering of pyroxylin or similar material enveloping said head and cap, and filling the cavity in and beneath said cap, and the spaces between the portions of said arms or prongs that are bent under said head.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 23d day of August, A. D. 1895.

MELLEN N. BRAY.

Witnesses:
N. C. LOMBARD,
M. E. CROCKER.