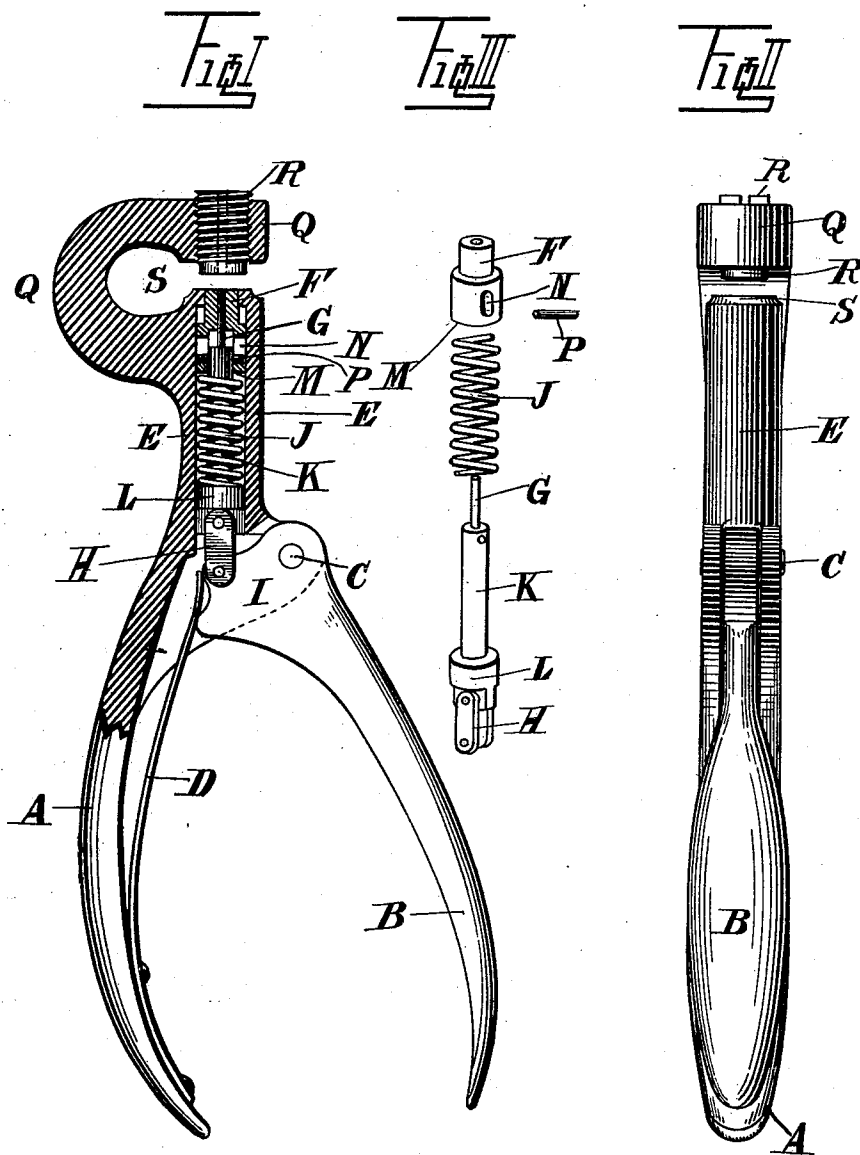


(No Model.)

G. ROSENWALD.
PUNCH.

No. 507,042.

Patented Oct. 17, 1893.



Witnesses
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UNITED STATES PATENT OFFICE.

GUSTAVE ROSENWALD, OF LONDON, ENGLAND.

PUNCH.

SPECIFICATION forming part of Letters Patent No. 507,042, dated October 17, 1893.

Application filed May 17, 1893. Serial No. 474,561. (No model.) Patented in England December 24, 1892, No. 23,803.

To all whom it may concern:

Be it known that I, GUSTAVE ROSENWALD, a subject of the Queen of Great Britain, and a resident of 27 Noble Street, in the city of London, England, have invented a certain new and useful Apparatus for Punching or Perforating Whalebone, Soft Metal, and other Semi-Hard Substances, (patented in Great Britain, No. 23,803, December 24, 1892,) of which the following is a specification.

This invention has for its object the constructing or arranging of a grip and punch or perforator combined in a framing for independent or consecutive action such as first gripping the article and then for indenting or for making a hole clean through the material.

The invention is specially intended for piercing the ends of strips of whalebone and their substitutes where a sewing or stitching is required when such strips are used for ladies' corsets, said material being very easily cracked, split or opened out in the grain at the hole by an awl or other appliance employed except when the hole is drilled, which is a somewhat tedious operation especially where several holes close together are required.

By my invention I can pierce holes very close together with rapidity and ease without risk of cracking, splitting or otherwise disfiguring the strip.

In my invention I employ a plunger or grip returnable by a spring after an action on a hand lever for holding the strip placed between it and a leg forwardly bent from the other handle, and of a blunt needle within the plunger also returnable by the spring during the return of the lever by the plunger spring in order to leave the space or gap between the leg and the head open for the insertion of the strips or pieces in succession. The leg has a hollow screw for adjustment to suit the thickness of the material to be operated upon the hollow in the screw being for the punched out pieces to escape.

The annexed drawings show my invention. Figure 1, is a part sectional side elevation; Fig. 2, a front elevation; Fig. 3, detail views of the internal appliances.

A, B, are two lever handles pivoted together at C, one of said levers being furnished with

a plate spring D for pressure against the other for keeping them apart except when forced toward each other during a punching operation. The lever A has a barrel E within which a grip tube F and a punch G have motion from the action of links H and cheek I of the lever P which links connect them to the hand lever B when moved in one direction by the hand and in the reverse direction by a helical spring J which encircles the stem K of the punch G said helical spring abutting against a shoulder L of the punch G and the base M of the grip F respectively which latter is slotted at N for a cross pin P of the punch stem K to ride along freely for the length of the slot only.

Q is a rearwardly and forwardly bent leg from the barrel E and is provided with an adjustable screw R to allow for a thick or a thin substance to be placed in between the head S of the barrel and the leg Q. The adjustable screw R is hollow and receives the pieces of substance in succession.

The action is as follows: A strip of any substance is first placed between the head S and leg Q, the lever B is pressed toward the lever A and the cheek I throws forward the links H the spring D being simultaneously compressed. The motion of the links H causes the punch G, the grip F and the spring J to rise until both punch and grip touch the substance on the head S and force it into contact with the screw R; a further motion of the lever B now forces the punch G to a greater distance the pressure exerted overcoming the tension of the spring J by reason of the pin P riding in the slot N so that the punch passes into the substance and makes a hole therein while the part of the substance surrounding the punch is being held firmly by the grip F. The end of the punch in passing through the substance pushes the piece so punched out into the hollow of the screw. The pressure on the lever B is now released and the springs D and J return the parts to their normal condition to free the substance for its ready removal and the placing in of another piece for a similar operation.

What I claim, and desire to secure by Letters Patent, is—

1. In a hand punch, the combination with

the handle A having the curved end Q, of a barrel E formed in said handle, a spring pressed grip, located in the barrel, a punch located concentrically in the grip, and a lever 5 B for operating the grip and punch, substantially as described.

2. In a hand punch, the combination with the handle A provided with a rearwardly and forwardly projecting end Q having an adjust- 10 able hollow screw seated therein, of a barrel E, formed in said handle, punching and gripping mechanism located in the barrel and consisting of the stem K, punch G, shoulder L,

grip F, slot N, pin P, and spring J, and an operating lever B, connected to the stem of said 15 punching and gripping mechanism by means of links II, substantially as described.

In witness whereof I have hereto signed my name, in the presence of two subscribing witnesses, this 3d day of May, 1893.

GUSTAVE ROSENWALD.

Witnesses:

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St. Michael's Alley, Cornhill, London.

ALEX. RIDGWAY,

St. Michael's Alley, E. C., Notary Public.