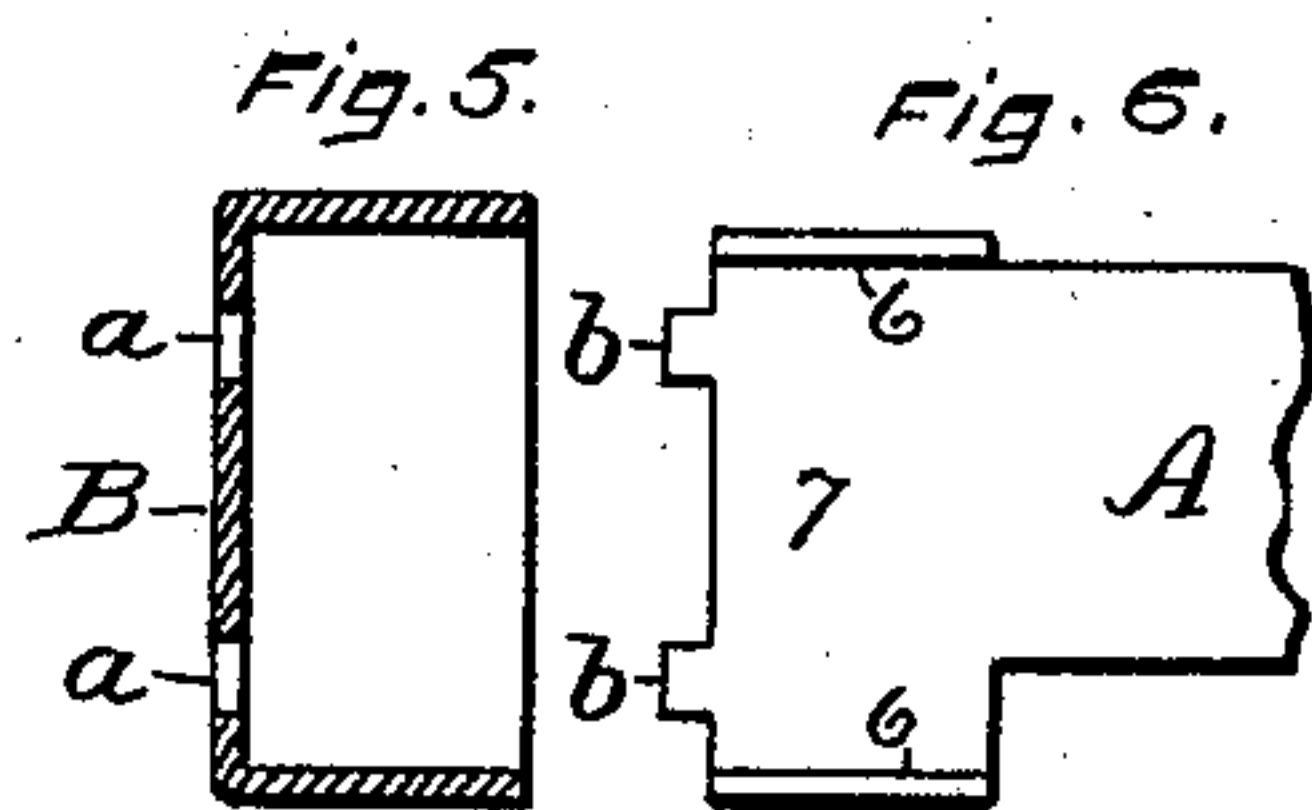
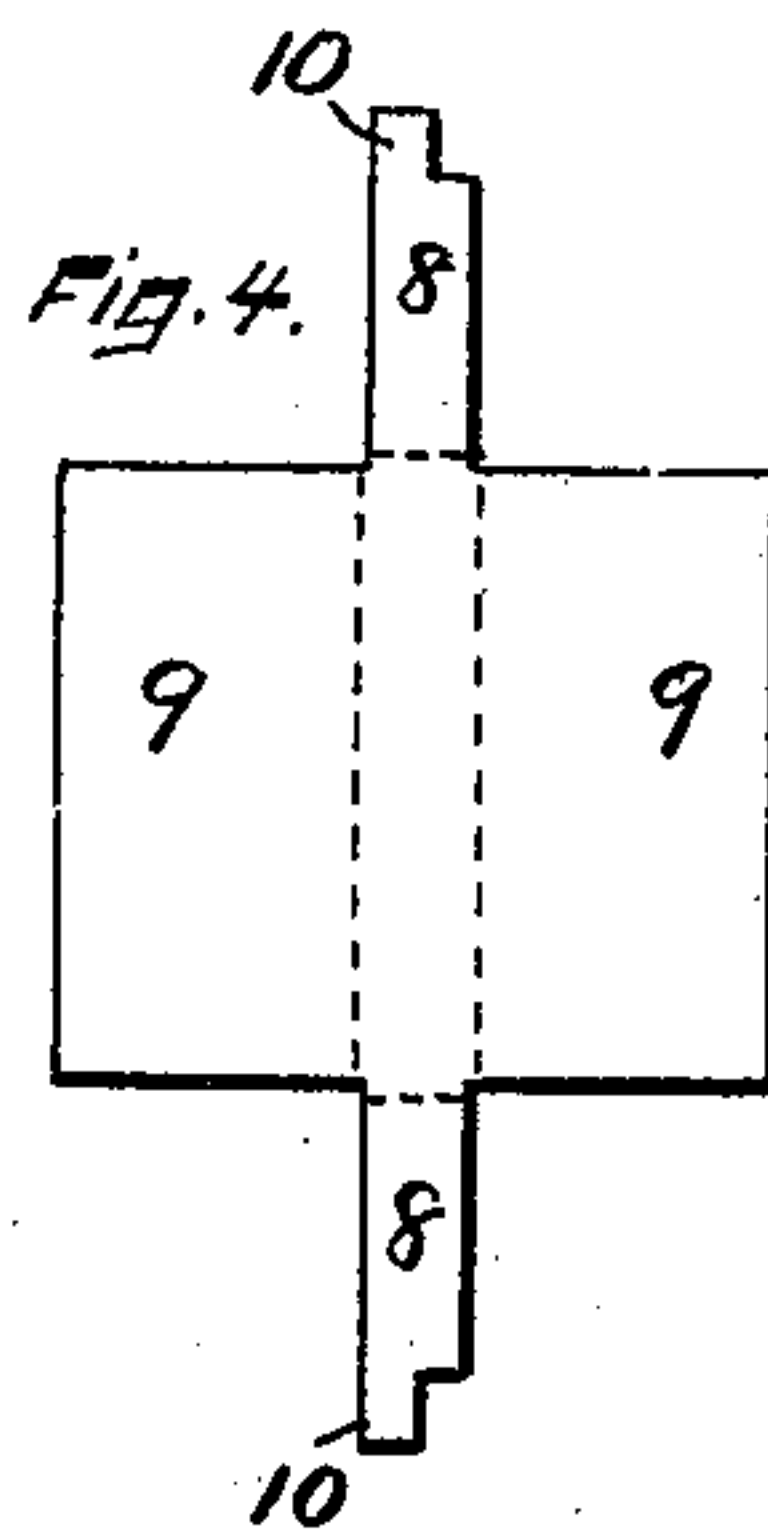
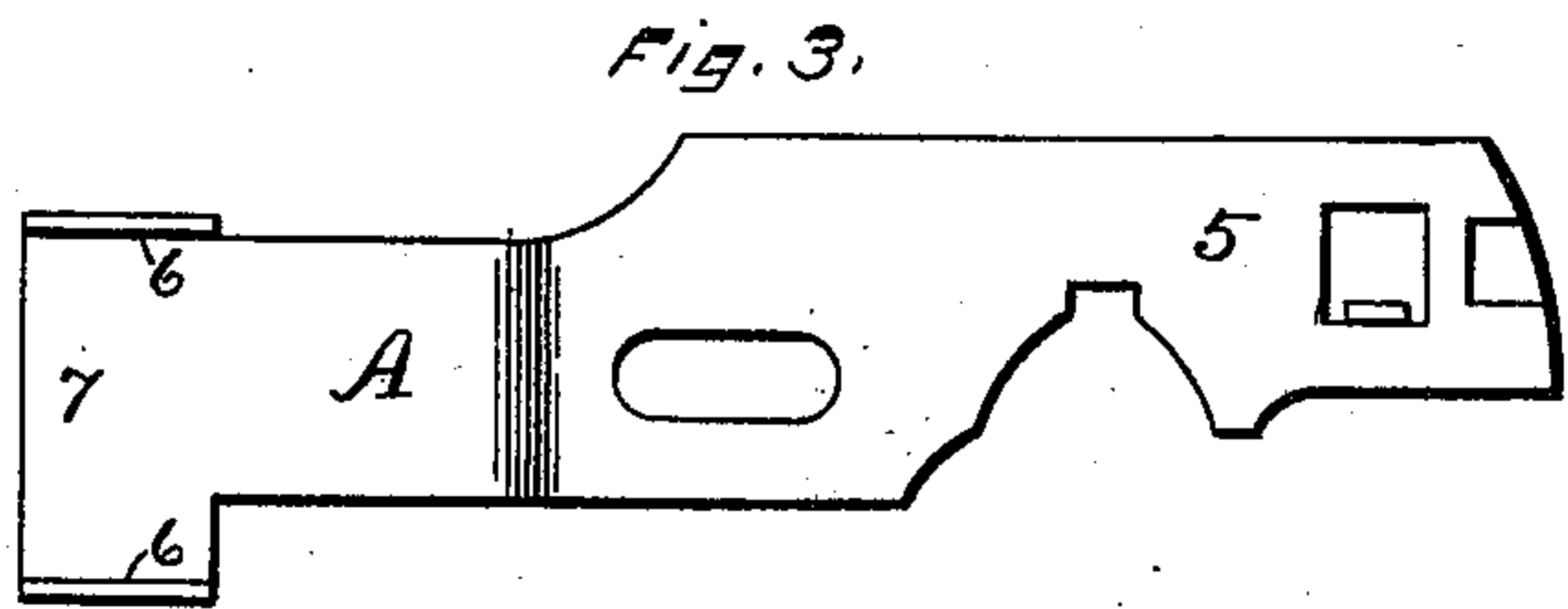
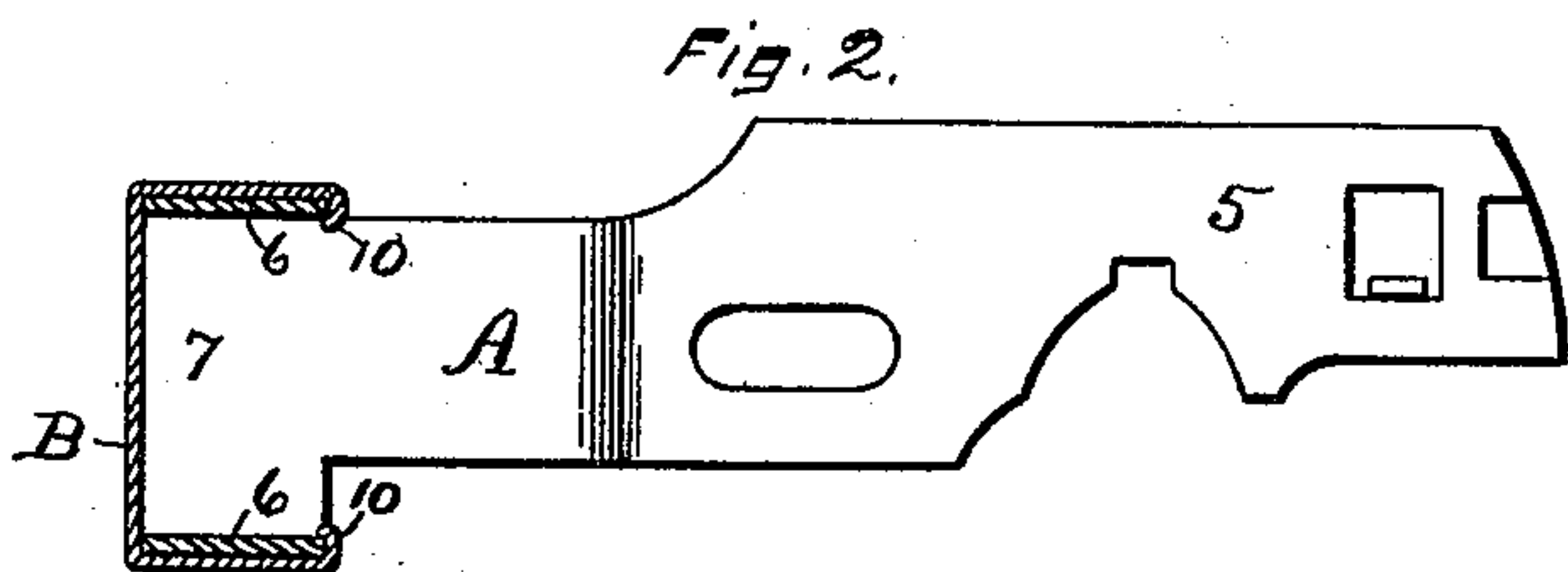
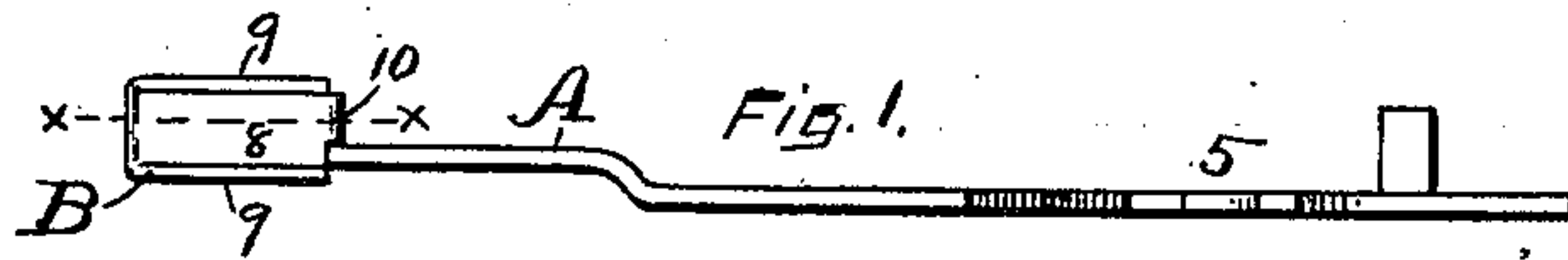


(No Model.)

H. G. VOIGHT.  
LOCK OR LATCH BOLT.

No. 434,491.

Patented Aug. 19, 1890.



WITNESSES.

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W. H. Pierce

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# UNITED STATES PATENT OFFICE.

HENRY G. VOIGHT, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO THE  
RUSSELL & ERWIN MANUFACTURING COMPANY, OF SAME PLACE.

## LOCK OR LATCH BOLT.

**SPECIFICATION** forming part of Letters Patent No. 434,491, dated August 19, 1890.

Application filed May 27, 1890. Serial No. 353,340. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY G. VOIGHT, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Lock or Latch Bolts, of which the following is a specification.

My invention relates to improvements in bolts for locks, latches, door-bolts, and analogous uses; and the objects of my improvement are simplicity and cheapness of construction, and to enable me to produce a bolt from two different materials.

In the accompanying drawings, Figure 1 is an edge view of my lock-bolt. Fig. 2 is a side elevation of the same with the head end in section on the line  $x x$  of Fig. 1. Fig. 3 is a side elevation of the principal member of the bolt. Fig. 4 is a plan view of a blank for forming the head. Fig. 5 is a detached sectional view of a cupped or drawn-up sheet-metal bolt-head, and Fig. 6 is a side elevation of the head end of the principal member of the bolt as adapted for said head.

A designates the body of the bolt, the tail end 5 of which may be of any desired or ordinary construction. I prefer to make this part of my bolt from sheet metal, and when so made I bend up two flanges 6 6 at the head end 7 to form a rudimentary head, upon which is received and fastened the separately-formed hollow head B. It is of course evident that the major portion of the bolt may be made in the form shown and described by constructing the same of cast metal instead of sheet metal. In either case, however, it is adapted to receive the separately-constructed hollow head B.

One manner of forming the hollow head B is from a cut-metal blank, as shown in Fig. 4, which is provided with two narrow wings 8 and two wide wings 9, so that by bending in suitable dies along the portions indicated by the broken lines thereon a hollow box-like head would be formed, the middle portion inclosed by said broken lines forming the outer end of the bolt, while the wings 9 9 form its broad sides and the narrower wings 8 8 its narrower sides. These narrow wings are preferably provided with lugs 10 at their outer

ends. After the hollow head is formed it is slipped upon the head end 7 of the main portion of the bolt and secured thereon by bending the lugs 10 over the inner ends of the flanges 6, as shown more clearly in Fig. 2. When this hollow head is formed from a sheet-metal blank cut in the form shown in Fig. 4, I prefer to bend the lugs 10 around upon the inside of the flanges 6 as well as back of their ends, so as to hook thereon and prevent all tendency of said narrow wings from working outwardly.

I have illustrated the blank, Fig. 4, as one means by which the hollow head may be readily formed; but it is evident without illustration that said hollow head may be cupped up or drawn in a seamless form from an uncut sheet of metal by drawing up in dies in the usual manner of drawing up or coupling solid-ended seamless tubes or analogous hollow articles. When so made, its edge could be trimmed to form the lugs 10 10, and the seamless hollow head be secured upon the part A in the manner before described. I do not, however, wish to limit the entire invention to the manner of fastening on the head by the lugs 10 bent over the rear end of the flanges, as the separately-formed sheet-metal head may be secured by other means. For instance, a drawn or seamless head may be provided with a mortise or mortises  $a a$ , Fig. 5, and the head 7 of the main portion of the bolt be provided with corresponding lugs  $b b$ , as shown in Fig. 6, for entering said mortises when put together, which lugs may be riveted to hold the parts in place.

I have illustrated my improvement as applied to a lock-bolt; but it is evident that the same construction may be applied to a latch-bolt by simply providing a hollow head with a beveled instead of a squared end, and beveling off the front end of the head of the part A so as to receive said head. It is also evident that without any modification it may be applied to door-bolts and analogous devices. In any event the shape of the body and tail end of the bolt is immaterial to my invention, and any known form thereof may be employed.

By making a lock-bolt or analogous article of two different pieces the body may be made



of cast or sheet metal of any appropriate material—as, for instance, iron or steel—while the head may be made of some material adapted to give a better finish—as, for instance,  
5 brass or bronze. Furthermore, by constructing the head of sheet metal either drawn or struck up in dies, either with or without seams, it can be made more readily of a given or definite size, so that a lot of heads will be of  
10 uniform size and require less fitting than would bolt-heads formed wholly of cast metal.

I claim as my invention—

1. The herein-described bolt, consisting of the part A, having one end formed into a rudi-

mentary head and the separately-constructed 15 hollow head secured thereon, substantially as described, and for the purpose specified.

2. A bolt consisting of the body A, with its head end provided with side flanges 6 6, and the separately-formed hollow head provided 20 with lugs 10 10 for embracing the inner ends of the flanges 6 6 and holding the head thereon, substantially as described, and for the purpose specified.

HENRY G. VOIGHT.

Witnesses:

T. S. BISHOP,  
M. S. WIARD.