

No. 682,959.

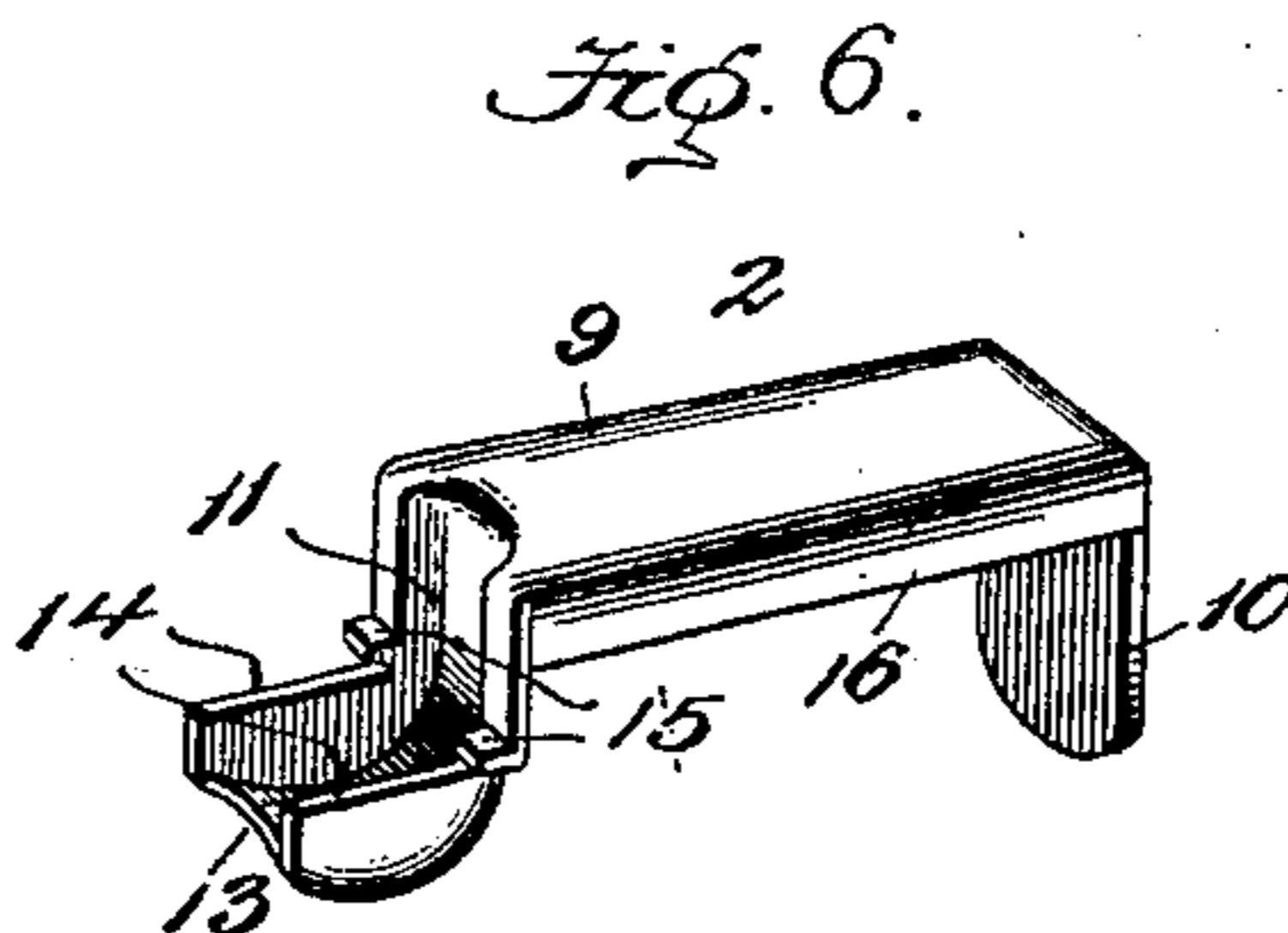
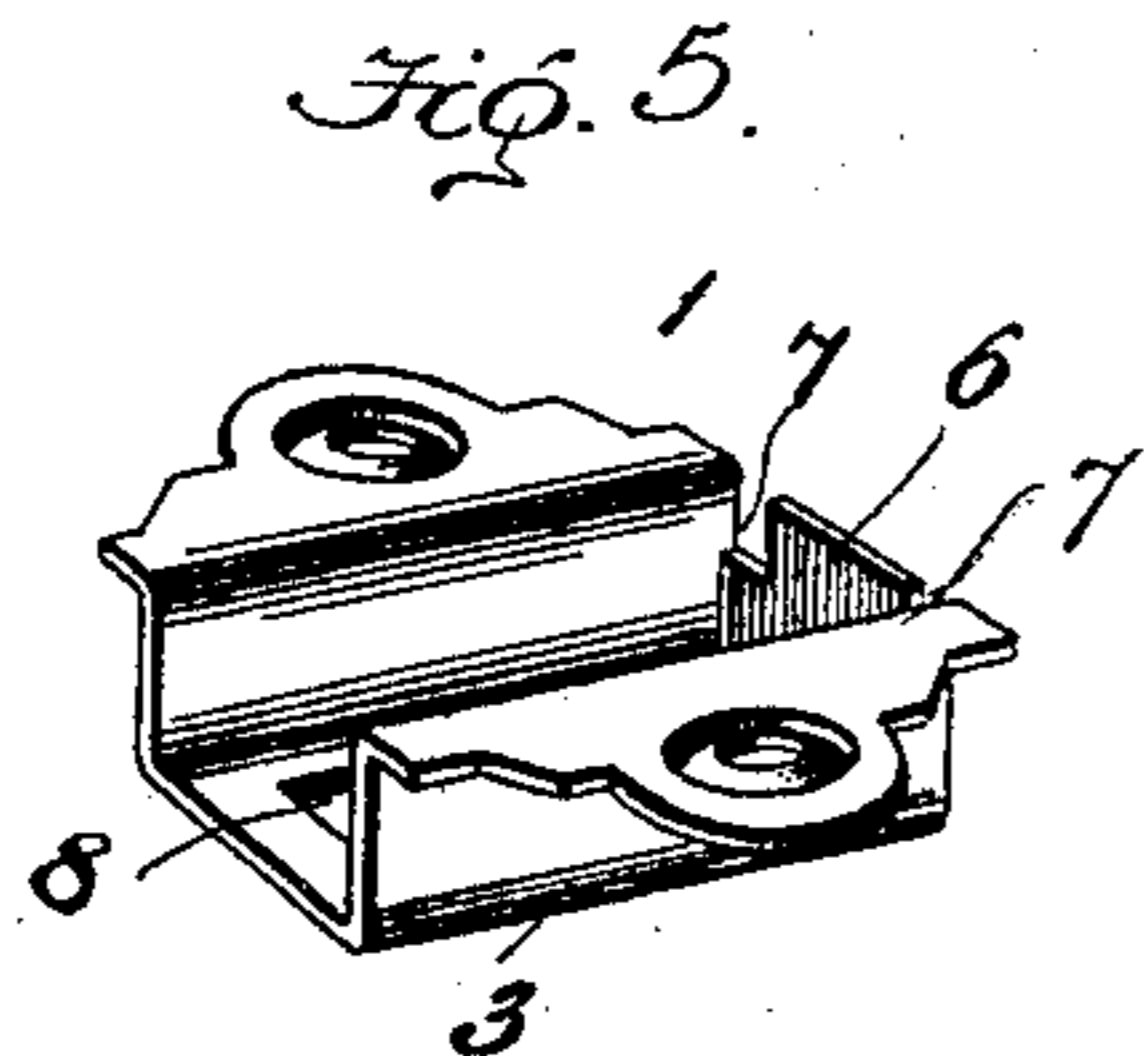
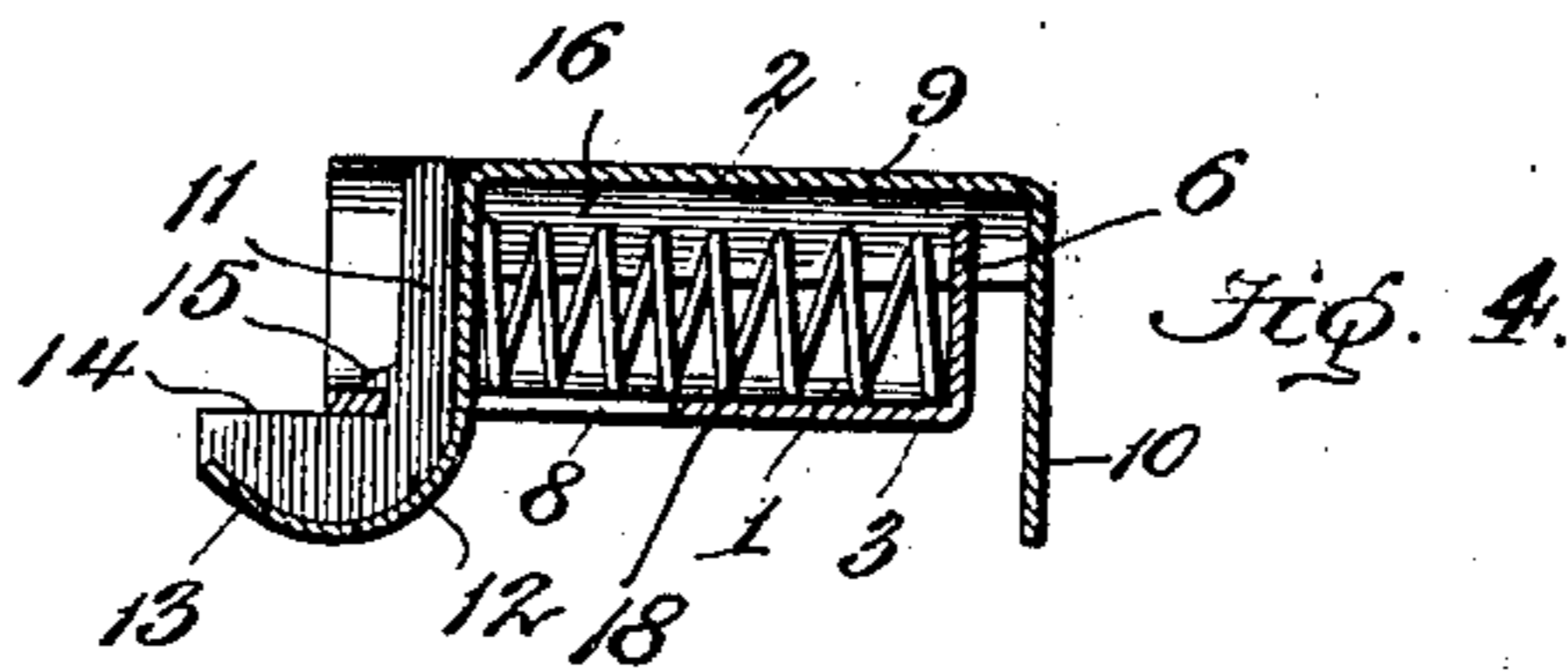
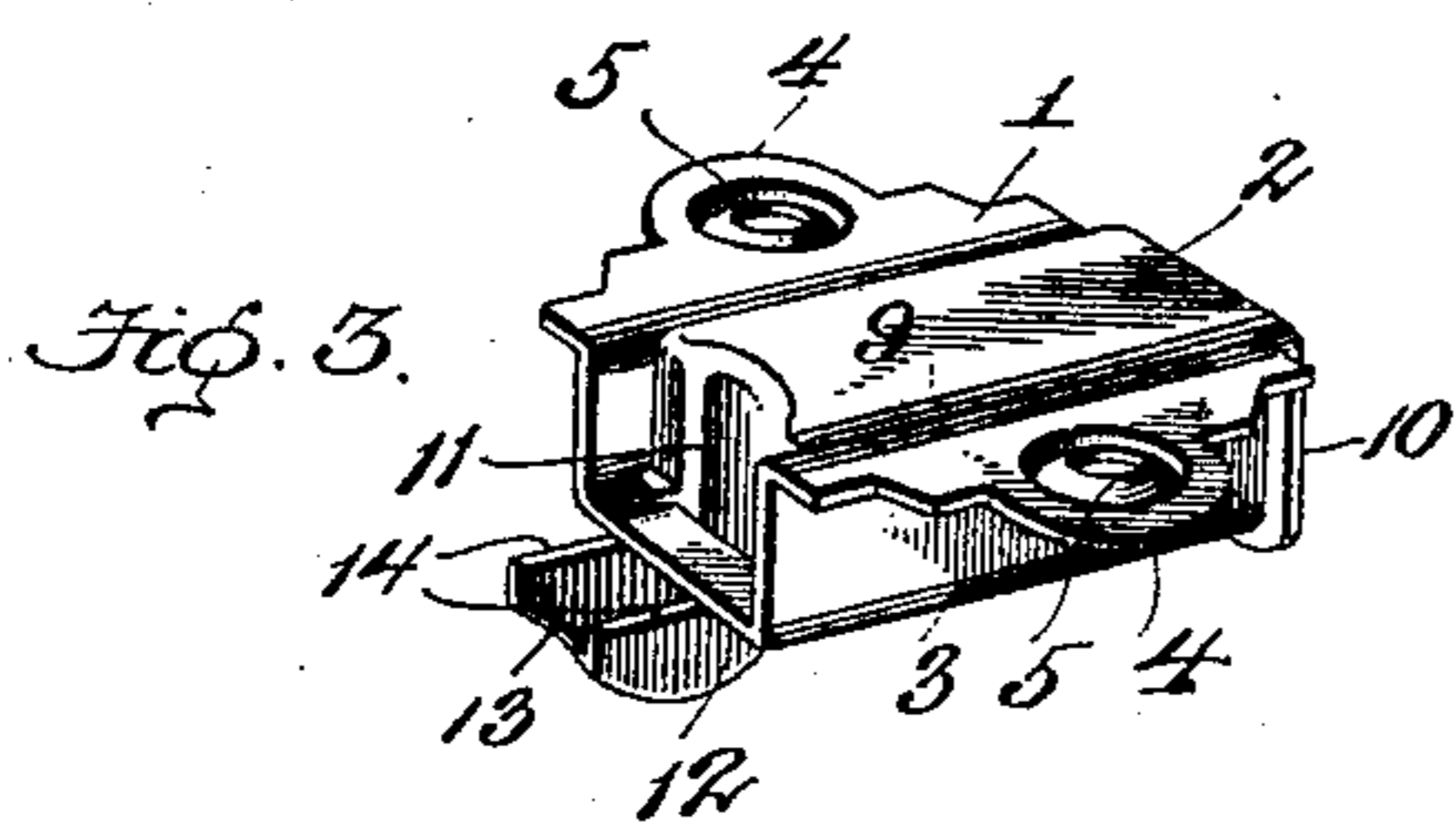
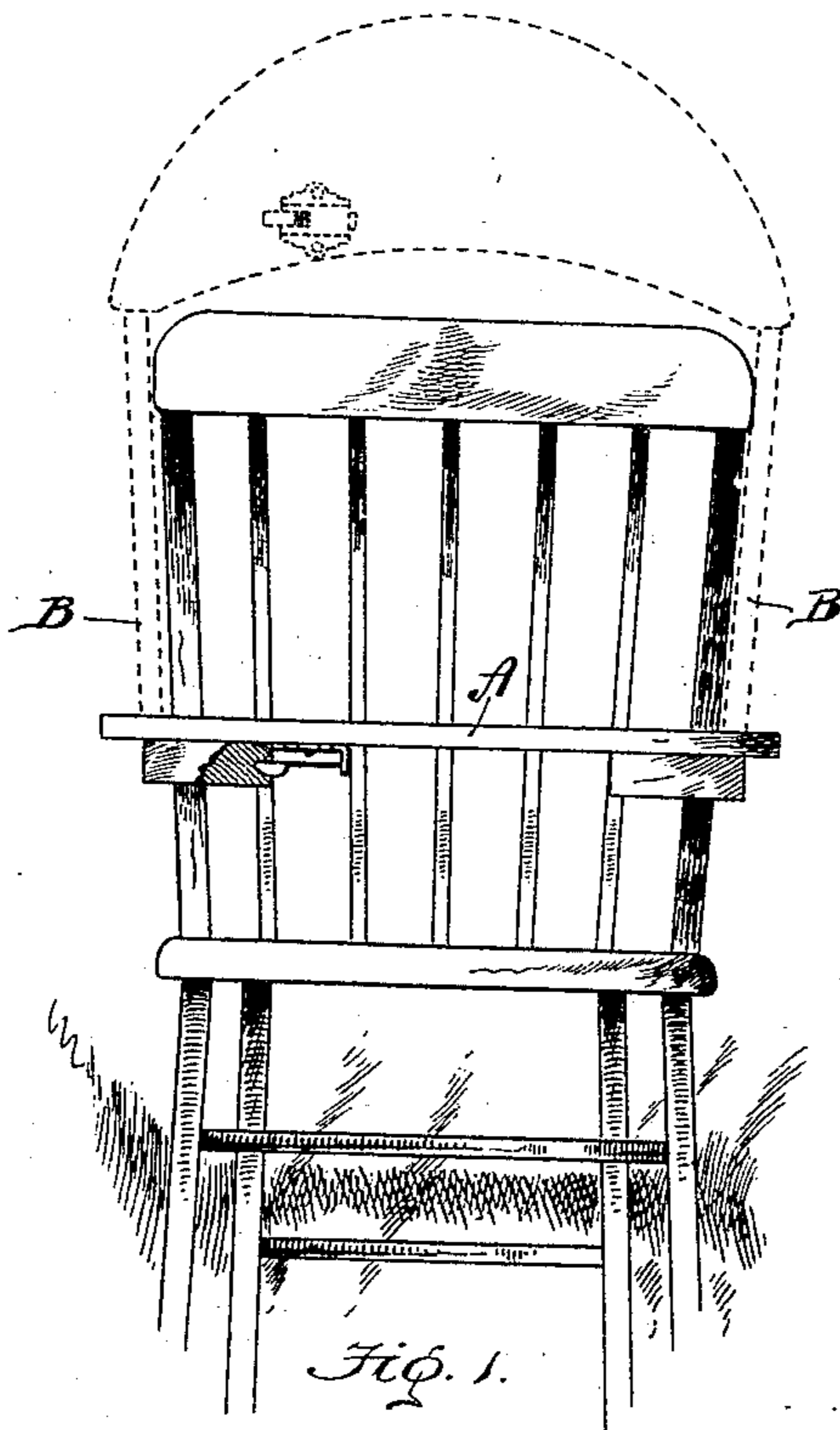
Patented Sept. 17, 1901.

W. P. SENG.  
SPRING CATCH.

(Application filed Jan. 7, 1901.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses

*E. F. Duwall*

Inventor  
Wendelin P. Seng.

By *M. S. Duwall*  
Attorney

No. 682,959.

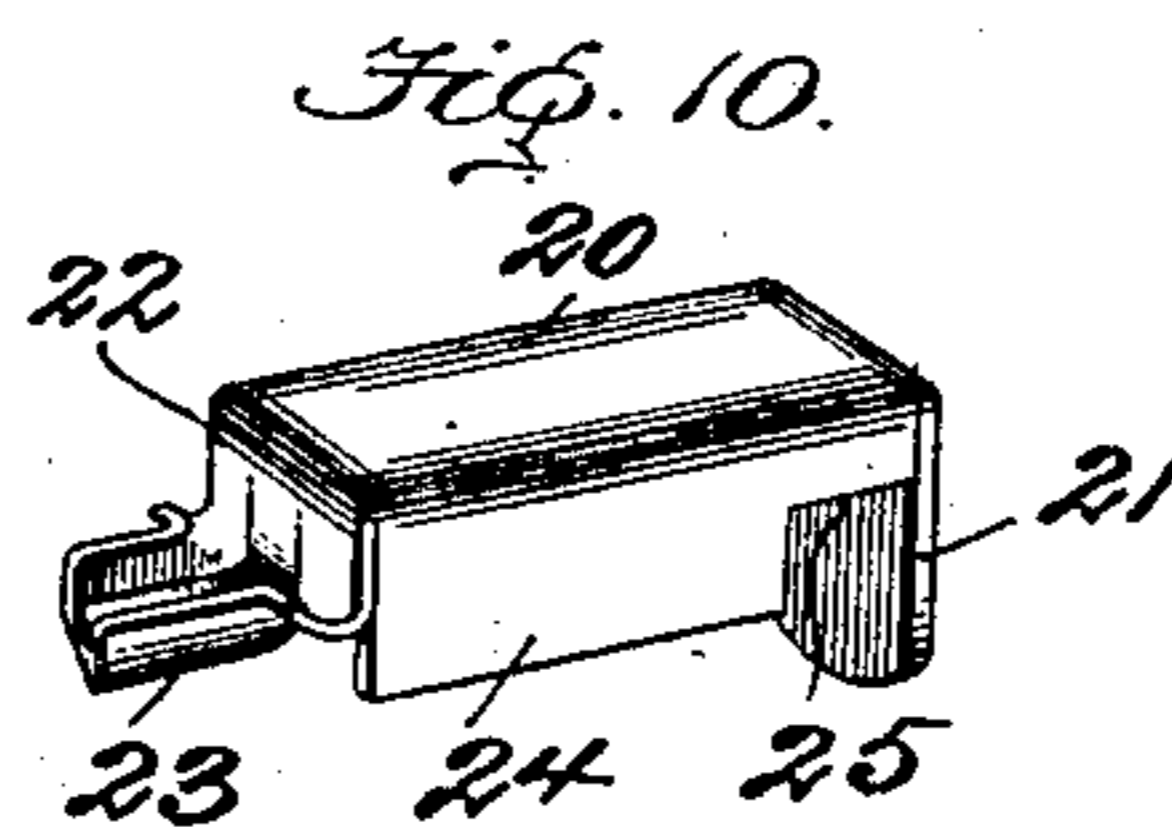
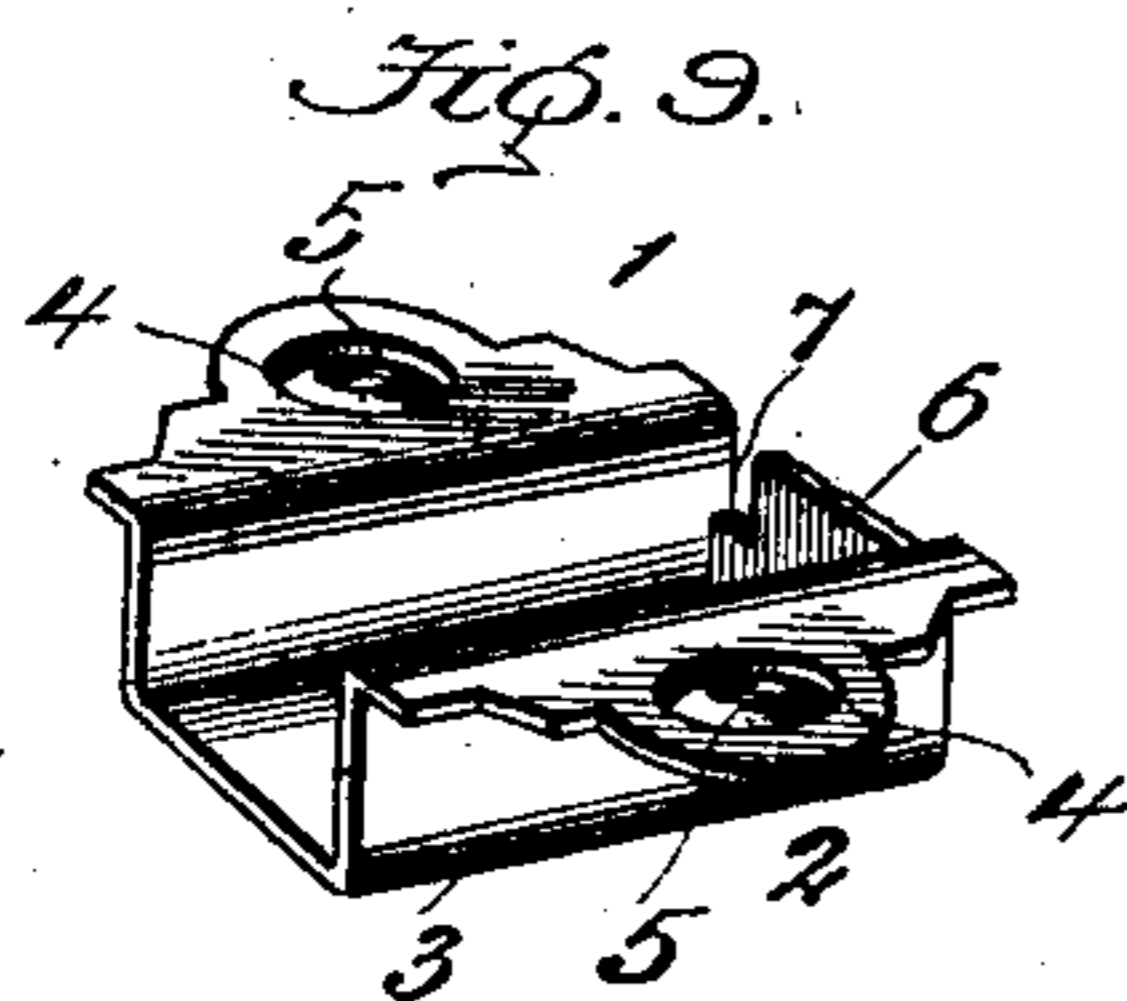
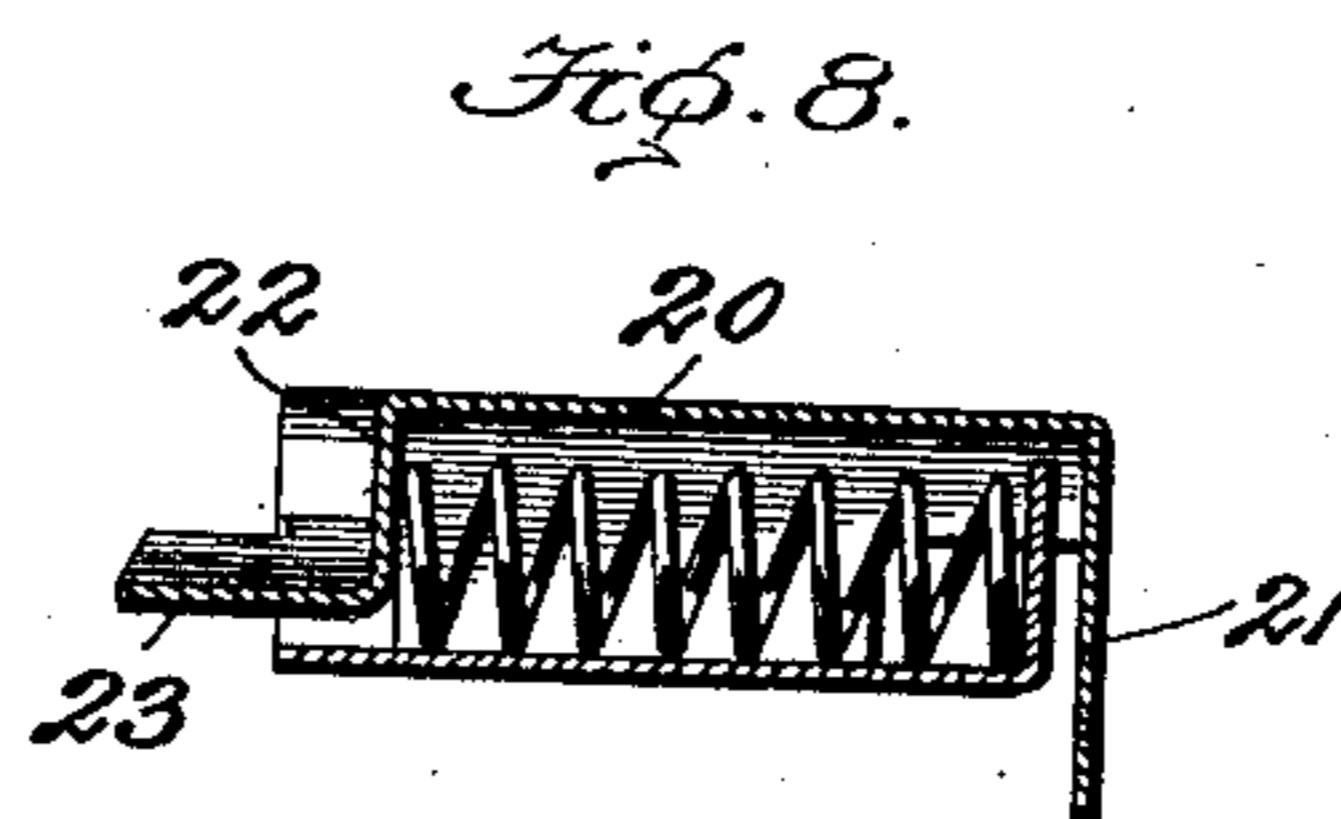
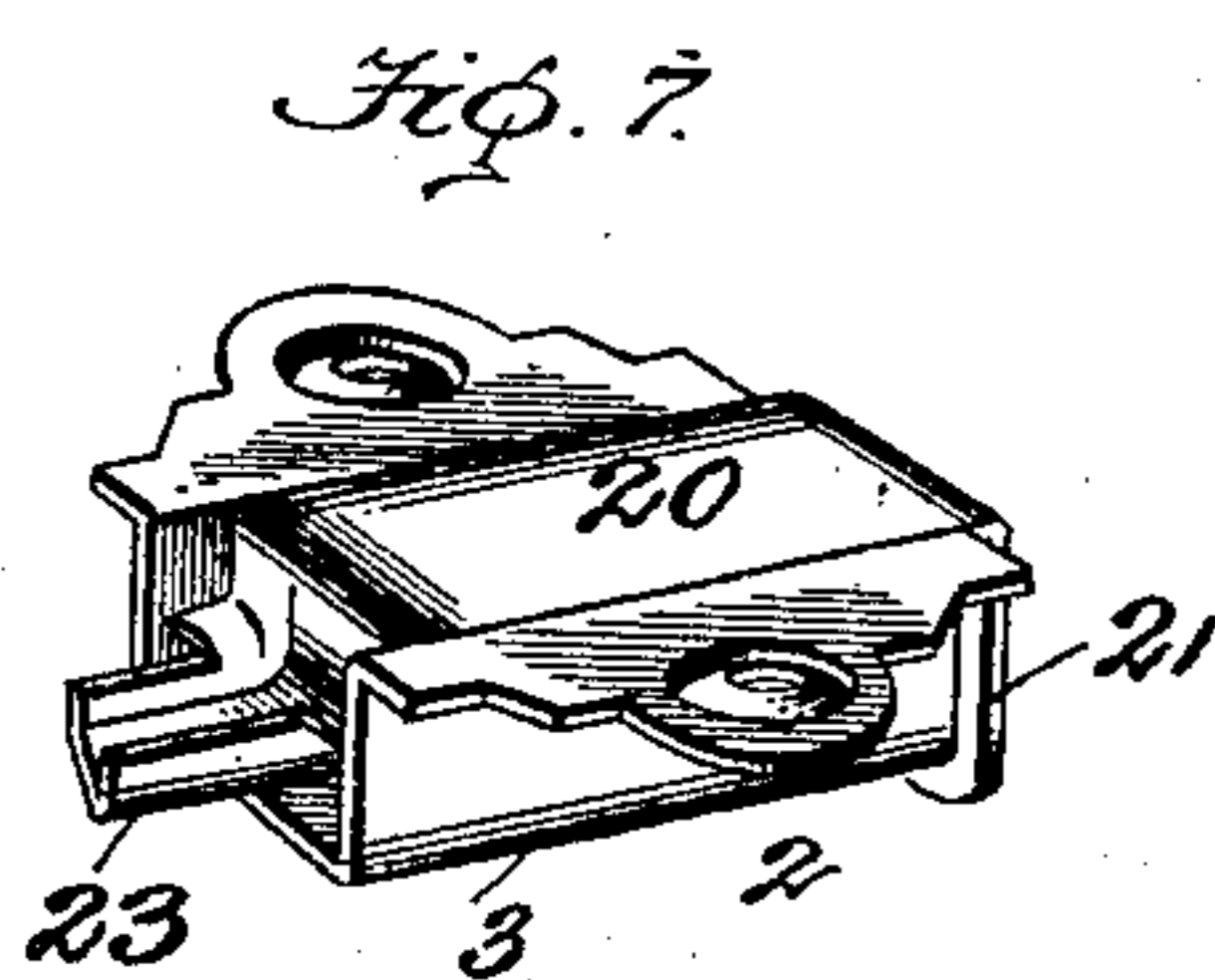
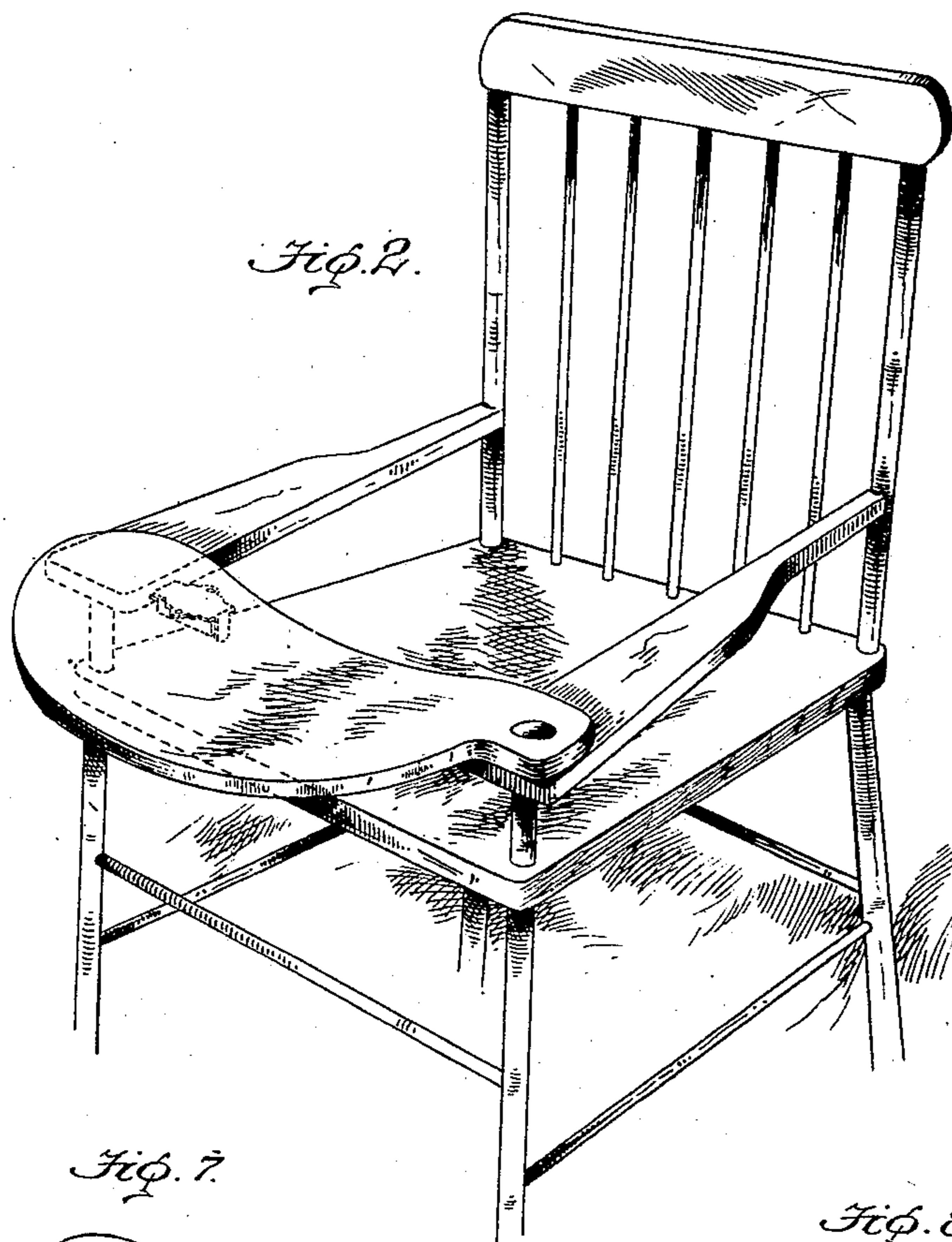
Patented Sept. 17, 1901.

W. P. SENG.  
SPRING CATCH.

(Application filed Jan. 7, 1901)

(No Model.)

2 Sheets—Sheet 2.



Witnesses

*W. P. Seng*  
C. F. Duwall

By

Inventor  
Wendelin P. Seng.  
*W. P. Seng*  
Attorney

# UNITED STATES PATENT OFFICE.

WENDELIN P. SENG, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE SENG COMPANY, OF SAME PLACE.

## SPRING-CATCH.

SPECIFICATION forming part of Letters Patent No. 682,959, dated September 17, 1901.

Application filed January 7, 1901. Serial No. 42,438. (No model.)

*To all whom it may concern:*

Be it known that I, WENDELIN P. SENG, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented new and useful Improvements in Spring-Catches, of which the following is a specification.

This invention relates to improvements in catches, and more particularly to that class known as "spring-catches."

The main objects of the invention are to produce a catch, preferably of the "spring style," that is capable of being constructed wholly of sheet metal and stamped to proper shape and which will therefore be strong and durable, easily and cheaply manufactured, and of neat and light appearance, whereby it is especially adapted for use in furniture manufacture, but more particularly in children's "high chairs" for securing the tables or trays thereof temporarily in position.

Various other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is an illustration of one well-known style of high chair with a catch embodying my invention applied thereto. Fig. 2 illustrates another well-known form of high chair with a catch embodying another form of my invention applied thereto. Fig. 3 is a detail of the catch illustrated in Fig. 1. Fig. 4 is a longitudinal sectional view of the same. Fig. 5 is a detail of the housing thereof. Fig. 6 is a similar view of the bolt employed. Fig. 7 is a detail of the catch shown in Fig. 2. Fig. 8 is a longitudinal sectional view of the same. Fig. 9 is a detail of the housing thereof. Fig. 10 is a similar view of the bolt employed.

Similar characters of reference indicate similar parts throughout the drawings.

A catch of the class to which this belongs should embody lightness, neat appearance, and strength. Heretofore, however, it has been customary to cast them either in whole or in part, the result being that they were at once cumbersome and readily broken. By my invention, however, is secured all of these long-sought essentials to a successful catch in that by adapting the same to be struck up

or stamped from sheet metal in a manner hereinafter described or otherwise I am enabled to secure lightness and to greatly add to the strength and durability of the article as well as to materially decrease the cost of its manufacture.

From blanks of sheet-steel of suitable shape I stamp out housings and bolts, as 1 and 2, respectively, as shown in details in Figs. 3 and 4. The former in cross-section is of general U shape and consists of the box portion 3, open at one end, the angularly-disposed securing plates or ears 4 at the upper edges thereof, which plates are provided with screw-receiving openings 5, and at its remaining end with the upwardly-disposed stop-flange 6, the opposite edges of which are for a portion of their length provided with narrow openings or guide-recesses 7. The box portion 3 may be further provided in this instance with an oblong opening 8. The sheet-metal bolt 2 comprises an oblong base 9, one end of which is downwardly disposed to form a depending thumb-piece 10 and the opposite end of which is downwardly disposed to produce an angular shank 11, the extremity of which is curved forwardly to produce an engaging head 12. This engaging head may be concavo-convex in cross-section for the purpose of lending proper and necessary rigidity, and at its extremity and upon its underside it may be beveled, as at 13, above which opposite engaging shoulders 14 may be formed. The shank 11 at each side thereof and at points immediately above the engaging shoulders 14 may be provided with guide-shoulders 15. Between the shank 11 and the thumb-piece 10 the longitudinal edges of the blank may be likewise upset or downwardly disposed to form opposite depending guide-flanges 16. These parts—the bolt and housing—are easily assembled by passing the angular engaging head of the latter downwardly through the oblong opening 8 of the former, the guide-shoulders 15 resting upon the opposite edges or bottom of the housing. When the parts are thus assembled, the opposite longitudinal guide-flanges 16 will rest in the slots 7 and so aid in guiding the bolt in its movements, which will be limited by the length of the slot 8 in the housing.

The thumb-piece 10 lies outside of and extends below the housing, where it is readily accessible for the purpose of withdrawing the bolt when it is desired to disengage the same.

5 When the device thus described is to be used as a spring-catch, as in the present illustrations, and for which use it is primarily intended, a coiled spring 18 is inserted between the housing and bolt, the said spring being  
10 compressed between the end wall 6 of the housing and the shank 11 of the bolt, whereby the said spring is entirely housed or concealed and exerts a constant tendency to force the bolt outward into engagement with the  
15 usual keeper.

This style of catch has many uses, and with respect to the same of course the invention is unlimited. It is particularly adapted, however, for use in connection with the table or  
20 waiter A employed in that style of high chair shown in Fig. 1, wherein the table is supported upon two pivoted arms B and is capable of being swung backward and forward over the back of the chair into and out  
25 of position. In this class of high chairs the catch engages with the keeper in the arm of the chair upon a downward movement of the table, and hence the bolt at its engaging end is necessarily beveled upon its under  
30 side, as shown and described, and therefore differently to the bolt of catches designed for tables of that style of high chairs wherein the said tables are pivoted upon one of the arms of the chair and swing horizontally to  
35 engage the keeper upon the opposite arm, as illustrated in Fig. 2.

In the catches illustrated in Figs. 2, 7, 8, 9, and 10, which are intended primarily for use in connection with high chairs of the style  
40 last referred to, the said catch consists of the same two component parts—the housing and the bolt—each of which is stamped or struck up, as before, from sheet metal. In this instance the housing is precisely the same as  
45 in the former instance, with the single exception that the oblong opening 8 in the bottom thereof is omitted. Therefore a description of the one will suffice for both. The bolt in this instance comprises the base 20,  
50 one end thereof being downwardly disposed at a right angle thereto to form a thumb-plate 21, by which it may be manipulated in the manner previously described, and the opposite end disposed downwardly for a short  
55 distance, forming a shank 22, and then forwardly, forming an engaging end 23. This engaging end is preferably U-shaped in cross-section for the purpose of lending suitable stability and may be transversely beveled,  
60 as is usual with bolts, to facilitate its engagement with the keeper. Between its ends the sides of the blank from which the bolt is stamped are downwardly disposed, preferably to a point below the horizontal of the  
65 engaging end, to form opposite longitudinal guide flanges or ways 24, which at the rear ends of their edges are for a short distance

cut away or recessed, as at 25, the thus-reduced portions of the flanges entering the slots 7 of the end wall of the housing, where-  
70 by the said bolt is both guided and limited in its reciprocal movements in a manner obvious. It will be seen that the parts composing this style of catch are assembled simply by dropping the bolt into the inverted  
75 housing, the parts being held thus in their assembled condition as heretofore—namely, by the application of the catch to the object upon which it is to be employed.

I of course do not limit my invention to the  
80 exact details of construction herein shown and described, but hold that I may vary the same to any extent within the scope of my claims or the knowledge of the skilled mechanic  
85 without departing from the principles of the invention or sacrificing and destroying any of the advantages thereof.

Having described my invention, what I claim is—

1. In a catch, the combination with a U-  
90 shaped housing having its opposite terminal edges laterally disposed and provided with openings forming screw-receiving retaining-ears and at one end provided with a stop-flange having opposite guide-recesses formed  
95 in its edge; of a sheet-metal bolt located in the housing and terminating at opposite ends beyond the same, said bolt having formed at one end an engaging head and at its opposite end bent to form a thumb-piece, and be-  
100 tween said head and piece provided with guide-flanges mounted in said guide-recesses of the housing.

2. In a catch, the combination with a U-  
105 shaped housing having its opposite edges laterally disposed to form securing-plates, and at one end provided with a stop-flange having guide-recesses, and near its opposite end in its bottom provided with an opening; of a sheet-metal bolt mounted in the housing, the  
110 front end of the bolt terminating in a downwardly and forwardly disposed angular engaging head, extending through and beyond the opening and the end of the housing and at its opposite end said bolt terminating be-  
115 yond the end of the housing in a depending thumb-piece, said bolt between said head and thumb-piece being provided with depending guide-flanges engaging with the guide-recesses of the housing, and a coiled spring in-  
120 closed by the bolt and housing and interposed between the engaging end of the former and the stop-flange of the latter.

3. The combination, in a catch, of a U-  
125 shaped housing, having an opening in its bottom near one end, a stop-flange provided with guide-recesses in its edges at the opposite end, and provided with securing-flanges; of a sheet-metal bolt seated for reciprocation in said housing, said bolt terminating at its  
130 front end in a downwardly-disposed shank, U-shaped in cross-section and laterally and forwardly bent to produce an engaging head, and above the same provided with guide-

shoulders, which engage the opposite edges of the opening in the housing when the said head of the bolt is passed therethrough, said bolt at its opposite end being provided with  
5 a depending thumb-piece, and between said shank and thumb-piece provided with depending guide-flanges seated and operating in the guide-recesses; and a coiled spring seated in the housing and bolt and compressed  
10 between the shank of the bolt and the stop-flange of the housing, and serving to normally press the bolt outward from the housing.

4. The herein-described catch, comprising a housing U-shaped in cross-section and terminating at one end in a stop, a bolt having  
15 inwardly-disposed longitudinal sides and mounted between and engaging the sides of the housing, said bolt being projected beyond one end of the housing and terminating in an

engaging end and a coiled spring inclosed by 20 the housing and bolt and interposed between said engaging end of the bolt and the stop on the housing.

5. The herein-described catch, comprising a housing, and a U-shaped bolt reversely dis- 25 posed with relation to and mounted for sliding therein and having one end projected therebeyond forming an engaging end, and a coiled spring seated within the U-shaped bolt and encompassed thereby and arranged to 30 normally project the bolt from said housing.

In testimony whereof I affix my signature in presence of two witnesses.

WENDELIN P. SENG.

Witnesses:

X. J. SENG,  
G. J. BUHL.