To all whom it may concern:

Be it known that I, Henry A. House, a citizen of the United States of America, and a resident of Bridgeport, in the State of Connecticut, have invented certain new and useful Improvements in Connecting Devices, Particularly for Sectional Barrel-Heads, of which the following is a specification.

My present invention has been devised particularly for the purpose of connecting detachably with each other, the parts of a sectional barrel head, but may be applied in other cases also whenever it is desired to connect two parts of articles securely yet detachably.

A specific example of my invention, as applied to barrel heads, is shown in the accompanying drawings, in which—

Figure 1 is a top view, with parts away, of a sectional barrel head embodying my new connecting device;

Fig. 2 is a partial cross-section on line 2—2 of Fig. 1;

Fig. 3 shows the same parts as Fig. 2, but in a different position; and

Fig. 4 is a section substantially on line 4—4 of Fig. 1.

Similar reference characters indicate corresponding parts throughout the several figures of the drawings.

In the particular construction shown, the barrel head comprises two substantially semi-circular sections A, B, which preferably are exactly alike, so that only one type or pattern need be manufactured. At one end of the diameter along which the sections are to be joined, the section A has a slightly raised or expanded portion A' adapted to overlap the mating unexpanded end of the section B. Similarly, the latter has an end portion B' overlapping the adjacent end of the section A. Between the end portions A' B' and at right angles to the diametral joint, the sections A, B are provided with tongues A', B' respectively, arranged to fit together in alternate fashion, like clasped or interlocking fingers; that is, the tongues A' fit between the tongues B', and vice versa. The tongues are at a level slightly below that of the main portion of the respective section, so that in the assembled position (see Fig. 2) they fit under the main portion of the other section, forming a serrated joint of scissors-like character. In order that the two sections A, B may be alike, I prefer the construction shown, where the last tongue at one end of the series A' or B' is at a greater distance from the periphery than the last tongue at the other end of the same series. Thus Fig. 1 shows the last tongue A' or B' at one end of the series, at a relatively great distance x from the periphery, while the last tongue at the other end of the same series is at a relatively small distance y from the periphery; the difference between these two distances, x - y, is equal to the width of one of the tongues A' or B'.

Each of the sections A, B is provided with a raised portion or ridge A", B" respectively, parallel with the diametral joint and located at a distance therefrom approximately equal to the length of the tongues A', B'. The lower surfaces of these ridges form grooves as shown best in Figs. 2 and 3, and the shoulders at the inner edges of these grooves, this is, the edges nearest the joint, constitute stops or abutments for hooks A', B' projecting at right angles from the edges of the tongues A', B', a short distance from the free ends of said tongues. The upwardly bent portions or ridges A', B' stop short of the peripheries of the respective sections A, B, and at the ends of these ridges, and in alignment with them, are arranged downwardly bent portions or sockets A", A" and B", B" respectively. The sockets A", B" are comparatively short, while the sockets A", B" are relatively long and communicate with transverse or circumferential depressions A", B" respectively.

Locking rods C, D are journaled in the sockets A", A" and B", B" respectively, and held down in said sockets by the lower surfaces of the ridges A", B" respectively, which ridges engage the rods from above. The rods C, D are provided with handles C', D' respectively adapted to be folded down into the depressions A", B" respectively. Furthermore, the rods C, D have longitudinal slots C", D" respectively adapted to receive the free ends of the tongues B", A" respectively, see Fig. 2. The rods C, D are slidable lengthwise, and the ends C', D' opposite the handles C", D" are flattened, as shown in Fig. 4, and when the handles are pulled lengthwise toward the adjacent peripheral portions of the barrel head, the ends C", D" (which in the position Fig. 1, rest on the flat upper surface of the head) are withdrawn clear of the upper surface of the section A or B respectively, to the position illustrated by Fig. 4. In this position the
rod is free to turn, whereas in the position of Fig. 1, the rod is held against turning, by the engagement of its flattened end (C or D) with the top surface of the corresponding head section (A or B). It will be observed that the depressions A', B' are wide enough to permit the handles C', D' to slide in them, lengthwise of the rod axis, to bring the flattened ends from the locked position of Fig. 1 to the free position of Fig. 4, and vice versa.

I also prefer to provide at least one of the rods C, D with an aperture, as C' in Fig. 4, which in the free position of the rod is covered by the ridge A', and is exposed only when the rod is in the locked position Fig. 1. A wire E may then be passed through said hole C', and a seal F applied to this wire. It will be obvious that if then an attempt should be made to bring the rod C into the free position (Fig. 4), the edge of the ridge A' would cut said wire as the aperture passes under said edge, and any tampering with the device would therefore be detected readily.

While my invention is susceptible of a general application, I prefer to use it in connection with a barrel of the character indicated in Fig. 4, the barrel having at its end an inwardly bent plane flange a adjacent to which there is a longitudinal or cylindrical portion b in conjunction with said flange a constitutes an angular or bent edge for the barrel; then follows a groove portion or contraction c, and adjoining thereto the barrel has outwardly projecting inclined surfaces or chines d. The edge portions of the sections A, B are shaped accordingly, with a bent edge a', b', fitting over the barrel edge a, b, a contraction c' flares outwardly to fit the chines d. Thus the barrel head will be quite firmly and tightly connected with the barrel.

Figs. 1 and 2 illustrate the connected and locked position of the barrel head sections A, B. The ends of the tongues A', B' are within the longitudinal recesses D', C' of the rods D, C, which recesses are horizontal at that time, and the flattened portions C', D' are also horizontal and rest on the upper surfaces of the respective sections A, B, the rods thus being locked against turning. Owing to the formation of the barrel and of the head at their engaging edge portions, the head hugs the barrel end tightly, and this is further insured by the somewhat elastic nature of the tongues A', B', which are flexed and under tension, on account of their scissors-like crossing and the action of the rods C, D as more fully explained below.

If it is desired to remove the barrel head, the rods C, D are first moved lengthwise toward the peripheral portion adjacent to the handles C', D' respectively. This brings the rods to a position such as shown in Fig. 4, the rods being then free to turn, as explained above, but, as previously stated, the seal-wire E will have to be broken to bring the rod C to this free position. Upon turning the rods C, D on their axes, the tongues A', B' will be caused to move downward, the diametral joint of the sections A, B practically forming a temporary pivot at this time. Then the ends of the tongues A', B' will escape from the grooves D', C', and the two sections will then be entirely disconnected, and free to be pulled apart as indicated in Fig. 3.

In assembling the device, the opposite procedure is followed, the parts or sections A, B being slipped together practically as indicated in Fig. 3, it being understood that the curved edges a', b' of the two sections have been properly fitted over the edge a, b of the barrel. By tilting the adjacent edges of the sections A, B upward from the position Fig. 3, the ends of the tongues A', B' are brought into the slots or recesses D', C' of the rods D, C. By then turning the rods C, D by means of their handles C', D', the parts are gradually brought to the position Fig. 2, and this also causes the bent edges a', b' of the two sections to be drawn tightly against the bent edge a, b, of the barrel, particularly through the action of the hooks or lugs A', B' on the inner surfaces of the ridges B', A' respectively. Finally, the rods C, D, being in the position Fig. 4, will be slid lengthwise to the locked position Fig. 1, and the seal E, F applied, if desired. The cover or head when closed is perfectly tight and very strong and firm.

I have referred to the sections or parts A, B as constituting together a barrel head, but the same construction is available for the other end or bottom of the barrel, and the term "head" as used herein is to be understood as applying to either end.

I claim:

1. A device for connecting two parts, comprising spaced tongues projected from each of said parts toward the other part, at their meeting edges the tongues of one part fitting into the spaces between the tongues of the other part, and a locking device carried by one of said parts and adapted for engagement with the tongues of the other part.

2. A device for connecting two parts, comprising tongues projected from each of said parts toward the other part, at their joint, and locking rods extending parallel to said joint, mounted to turn on the respective parts, and each adapted for engagement with the tongues of the other part, said rods being also slidable lengthwise, and the rods and the parts on which they are mounted, being formed with mating surfaces which are adapted to leave the rods
free to turn when they are in one position, but to lock them against turning when they are slid into the other position.

3. A device for connecting two parts, comprising spaced tongues projected from each of said parts toward the other part, at their joint, the tongues of one part fitting into the spaces between the tongues of the other part, and a locking rod extending lengthwise of said joint, said rod being mounted to turn on one of said parts and adapted for engagement with the tongues of the other part.

4. A device for connecting two parts, comprising tongues projected from each of said parts toward the other part, at their joint, and a locking rod extending lengthwise of said joint, said rod being mounted to turn on one of said parts and provided with a longitudinal recess to receive the ends of the tongues of the other part.

5. A device for connecting two parts, comprising tongues projected from each of said parts toward the other part, at their joint, and a locking rod extending lengthwise of said joint, said rod being mounted to turn and to slide lengthwise on one of said parts, and adapted for engagement with the tongues of the other part, and means whereby the longitudinal shifting of the rod will according to the direction of the shifting movement, either lock the rod against turning or free it for turning.

6. A device for connecting two parts, comprising tongues projected from each of said parts toward the other part at their joint, one of said parts being provided at a distance from said joint with a recess parallel thereto, and with alining sockets located at opposite ends of said recess, and a rod mounted to move in said sockets and recess, and adapted for locking engagement with the tongues of the other part.

7. A device for connecting two parts, comprising tongues projected from each of said parts toward the other part at their joint, one of said parts being provided in one of its faces with a recess parallel to said joint at a distance therefrom, and in the other face with alining sockets located at opposite ends of said recess, and a rod journaled in said sockets and recess, and adapted for locking engagement with the tongues of the other part.

8. A device for connecting two parts, comprising tongues projected from each of said parts toward the other part at their joint, one of said parts being provided with bearing portions, and a rod mounted to turn and slide in said bearing portions and adapted for locking engagement with the tongues of the other part, said rod being provided with a perforation adapted to receive a seal wire, and to be slid from an exposed position to a position in which it is covered by a bearing portion.

9. A device for connecting two parts, comprising tongues projected from each of said parts toward the other part at their joint, the tongues of one part being formed with hooks, and the other part being formed with a recess parallel to said joint at a distance therefrom, said hooks being adapted to engage a wall of said recess, and a device mounted movably on one of said parts and adapted for locking engagement with the tongues of the other part.

10. A device for connecting two parts, comprising tongues projected from each of said parts toward the other part at their joint, the tongues of one part being formed with hooks, and the other part being formed with a recess parallel to said joint at a distance therefrom, said hooks being adapted to engage one of the longitudinal walls of said recess, and a movable rod extending lengthwise within said recess, and adapted for locking engagement with the tongues of the other part.

11. A device for connecting two parts, comprising tongues projected from each of said parts toward the other part at their joint, the tongues of one part being formed with hooks, and the other part being formed with a recess parallel to said joint at a distance therefrom, said hooks being adapted to engage with that longitudinal wall of said recess which is nearest to the joint, and a locking rod adapted to engage the ends of the hooked tongues, and arranged lengthwise in that portion of said recess which is farthest away from the joint.

12. A device for connecting two parts, comprising tongues projected from each of said parts toward the other part at their joint, sockets arranged on one of said parts at a distance from the joint, with the axes of said sockets parallel to the joint, and a locking rod arranged to turn and slide in said sockets and provided with a longitudinal recess to receive the ends of the tongues of the other part, said rod being provided at one end with a handle, and at the other end with a flattened portion adapted to be slid into engagement with a surface on the part carrying said rod to lock the rod against turning.

13. A device for connecting two parts, comprising tongues projected from each of said parts toward the other part at their joint, one of said parts being formed with bearing portions, and a rod mounted to turn and slide in said bearing portions and adapted for locking engagement with the tongues of the other part, said rod being provided with a perforation adapted to receive a seal wire, and to be slid from an exposed position to a position in which it is covered by a bearing portion.
joint, and overlapping said other part on the inside thereof, and a locking device carried by one of said parts and movable relatively thereto, and adapted for engagement with the tongues of the other part, said device being provided with an operating handle located on the outside of the respective part.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses.

HENRY A. HOUSE.

Witnesses:
H. N. STUART,
MOR. M. WEINBERG.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D.C."