This invention relates to an improvement in multiple-barrel firearms and has for one of its objects the provision at a low cost for manufacture of a firearm of the type referred to in which the top rib will be so firmly secured in place as to effectively resist the loosening tendency of the repeated recoil of the arm and the distorting tendencies of differential expansion due to the heating of the arm after rapid firing.

With the above and other objects in view, as will appear from the following, my invention consists in a multiple-barrel firearm having certain details of construction and combinations of parts as will hereinafter described and particularly recited in the claims.

In the accompanying drawings:

Fig. 1 is a top or plan view of the barrel-unit of a double-barreled shotgun embodying my invention;

Fig. 2 is a view thereof in side elevation;

Fig. 3 is an underside view thereof;

Fig. 4 is a view thereof in rear end elevation;

Fig. 5 is a view of the front end thereof;

Fig. 6 is a transverse sectional view on a larger scale taken on the line 6—6 of Fig. 2;

Fig. 7 is a similar view on the line 7—7 of Fig. 2;

Fig. 8 is a similar view on the line 8—8 of Fig. 2;

Fig. 9 is a similar view on the line 9—9 of Fig. 2;

Fig. 10 is a similar view on the line 10—10 of Fig. 2;

Fig. 11 is a broken view in horizontal section taken on the line 11—11 of Fig. 2;

Fig. 12 is a broken vertical longitudinal sectional view taken on the line 12—12 of Fig. 1;

Fig. 13 is a broken top or plan view of the rear end of the left-hand barrel detached; and

Fig. 14 is a corresponding view of the rear end of the right-hand barrel detached.

The form of my invention herein chosen for illustration is shown as embodied in the barrel-unit of a double-barrel shotgun comprising a left-hand barrel 20 and a substantially-parallel right-hand barrel 21. The inner face of the left-hand barrel 20 is formed with an integral inwardly-offsetting projection or lump 22 formed about midway of its length with a vertical dovetail-groove 23 for the reception of a vertical dovetail-rib 24 extending inward toward the left-hand barrel 20 from a complementary lump or projection 25 formed upon the inner face of the right-hand barrel 21.

The dovetail-groove 23 of the barrel 21 and the similarly-shaped dovetail-rib 24 of the barrel 21 are adapted to be inter-engaged to firmly lock the rear ends of the respective barrels together, as clearly shown in Fig. 11 of the drawings.

The integral extension or lump 22 of the left-hand barrel 20 is extended upward above the immediately-adjacent surface of the said barrel (Figs. 6 and 7) to form an upstanding mounting-extension 26 which substantially corresponds to an extension 27 similarly upstanding from the lump 25 of the right-hand barrel 21 and uniting therewith to provide a support for the rear end of a top-rib 28 located between the barrels 20 and 21 and extending the full length thereof.

Throughout the major portion of its length the top-rib 28 is made U-shaped in cross-section by providing it on its respective opposite sides with depending longitudinal flanges 29 and 30 respectively embracing the opposite sides of the support formed by the upstanding extensions 26 and 27 of the barrel-lumps 22 and 25 respectively.

The lump 22 of the left-hand barrel 20 is projected downward beyond the said barrel to form a depending extension 31 complementing a similar extension 32 upon the lump 25 of the right-hand barrel 21 to form a barrel-lug 33 forming a usual feature of double-barreled breakdown shotguns and similar arms. It will be noted that the dovetail-groove 23 extends vertically through the upstanding extension 26 and the depending extension 31 of the lump 22 of the left-hand barrel 20 and that similarly the dovetail-rib 24 extends vertically across the upstanding extension 27 and the depending extension 32 of the lump 25 of the right-hand barrel 21.
The substantially-parallel barrels 20 and 21 have secured between them just forward of the lug 33 by brazing or other suitable fastening means a downwardly-projecting fore end lug 34. Near their forward ends the said barrels have positioned between them a spacer-block 35 (Fig. 9) having its opposite faces concaved to conform to the curvature of the adjacent sides of the said barrels. Extending between the forward ends of the lumps 22 and 23 on one hand and the rear face of the fore end lug 34 I provide a short bottom-rib 36 of plano-convex form in cross-section, as clearly shown in Fig. 7 of the drawings. Extending between the forward end of the fore end lug 34 and the front end of the barrels 20 and 21 between which latter it is partially interposed, is a long bottom rib 37 of concavo-convex form in cross-section (Figs. 8, 9 and 10).

It will be noted from the drawings that both the top ribs 28 and the complementary bottom-ribs 36 and 37 have their respective opposite sides contoured so as to snugly fit the adjacent curved surfaces of the barrels 20 and 21, as clearly shown in Figs. 6 to 10 inclusive. Brazing, soldering, welding, or any other form of attachment may be resorted to for securing the respective barrels 20 and 21 together and to secure the top-rib 28 and the bottom-ribs 36 and 37 in place between the said barrels.

By forming the top-rib U-shaped in cross-section at its rear end the same may be made to snugly embrace the extensions 26 and 27 so as to not only assist in holding the same together but to be itself so firmly anchored in place as to effectively resist the loosening tendency of the repeated recoil of the arm and the curling tendencies of differential expansion due to the heating of the arm after repeated firing. Furthermore, the side flanges 29 and 30 of the top-rib serve to accurately position the latter laterally with respect to the longitudinal center-line of the barrel-unit, thus obviating the necessity for extreme care during the operation of securing the said top-rib in place.

I claim:

1. A multiple-barrel firearm having a pair of substantially-parallel barrels, each of which is formed upon its inner face with a lump secured to the complementary lump of the other barrel; and a top-rib lying between the said barrels and embracing the upwardly-extended portion of the said lumps thereof.

2. A multiple-barrel firearm having a pair of substantially-parallel barrels, each of which is formed upon its inner face with a lump secured to the complementary lump of the other barrel; and a top-rib lying between the said barrels and embracing the upwardly-extended portion of the said lumps thereof.

3. A multiple-barrel firearm having a pair of substantially-parallel barrels, each of which is formed upon its inner face with a lump secured to the complementary lump of the other barrel; and a top-rib overlying the upper ends of the lumps of the said barrels and provided on its respective opposite sides with depending longitudinal flanges engaging the outer faces of the said lumps.

4. A multiple-barrel firearm having a pair of substantially-parallel barrels, each of which is formed upon its inner face with a lump extended upward beyond the immediately-adjacent portions of the said barrels and secured to the complementary lump of the other barrel; and a top-rib overlying the upwardly-extended portions of the lumps of the said barrels and provided on its respective opposite sides with depending longitudinal flanges engaging the outer faces of the said lumps.

5. A multiple-barrel firearm having a pair of substantially-parallel barrels, one of which is provided with a lump formed with a dovetail-groove and the other of which is formed with a lump provided with a dovetail-groove to couple the said barrels together; and a top-rib lying between the said barrels and embracing the upper ends of the said lumps thereof.

6. A multiple-barrel firearm having a pair of substantially-parallel barrels, one of which is provided with a lump extended upward beyond the immediately-adjacent portion of its barrel and formed with a dovetail-groove, and the other barrel being formed with a co-acting lump also extended upward beyond the immediately-adjacent portion of its barrel and provided with a dovetail-groove to couple the said barrels together; and a top-rib lying between the said barrels and embracing the upwardly-extended portions of the said lumps thereof.

7. A multiple-barrel firearm having a pair of substantially-parallel barrels, one of which is provided with a lump formed with a dovetail-groove and the other of which is formed with a lump provided with a dovetail-groove to couple the said barrels together; and a top-rib overlying the upper ends of the lumps of the said barrels and provided on its respective opposite sides with depending longitudinal flanges engaging the outer faces of the said lumps.

8. A multiple-barrel firearm having a pair of substantially-parallel barrels, one of which is provided with a lump extended upward beyond the immediately-adjacent portion of its barrel and formed with a dovetail-groove, and the other barrel being formed
with a co-acting lump also extended upward beyond the immediately-adjacent portion of its barrel and provided with a dovetail-rib inter-engaging with the said dovetail-groove to couple the said barrels together; and a top-rib overlying the upwardly-extended portions of the lumps of the said barrels and provided on its respective opposite sides with depending longitudinal flanges engaging the outer faces of the said lumps.

In testimony whereof, I have signed this specification.

FRANK F. BURTON.