This invention relates to a hand guard for a rifle and more particularly for an automatic rifle, said hand guard comprising a heat insulating sleeve of a synthetic material which is secured around the barrel and leaves an air chamber with respect to the barrel.

The bipheror known hand guards of this kind mainly consist of a foam-like synthetic material, which at its inner side is provided with a reflecting metallic layer. The sleeve thus obtained is centered on the barrel of the rifle at both ends by means of an inwardly directed rim and has openings in its circumferential wall for connecting the air chamber around the barrel to the outer air in order to obtain in this way a circulation of air through said chamber, whereby both the barrel and the hand guard are cooled.

Said known hand guard is slid on the barrel and is secured against rotation by projections at the end of the barrel, where the bolt is located and the guard is prevented from axial displacement by e.g. the holder of the front sight. As dust and other dirt can easily penetrate through the openings provided in the circumferential wall of the guard it is required to repeatedly clean the air chamber and the barrel. To this end the hand guard is to be removed and said removal is only possible after having removed various elements secured on the barrel and which prevent the hand guard from being slid from the barrel. Said elements may be constituted for instance by the holder of the front sight, the front support of the rifle, a flash-bider or a grenade-launcher.

The invention has for its object to improve a hand guard of the kind referred to in such a manner that it may be removed from the barrel without disconnecting any part from the barrel. According to the invention the sleeve consisting of synthetic material is split in longitudinal direction and provided with a separate self supporting metallic inner tube, which is also split in longitudinal direction but along an other plane than said sleeve and said latter may be secured on the inner tube. With said arrangement the sleeve consisting of synthetic material may leave uncovered the foremost portion of the inner tube and said portion of the inner tube may have openings in its wall and the rear portion of the inner tube and that of the sleeve may also be provided with one or more circular rows of openings connecting the air chamber around the barrel with the outer air.

With said new construction of the hand guard the combined inner tube and the synthetic sleeve can be secured on the barrel of the rifle by a single fastening element, so that after loosening said fastening element the synthetic sleeve and also the inner tube may be removed without disconnecting any other part. As the air can freely enter the inner tube at its foremost uncovered portion in order to flow through the air chamber to the rear and to flow out at this end an efficient cooling of the foremost and thus h hottest portion of the barrel is ensured.

For securing the synthetic sleeve consisting of at least two parts on the inner tube a centering annulus for the foremost end of the synthetic sleeve is suitably provided on said tube, said annulus being adapted to enclose said end of the sleeve, and a nut urges against the rear end of the synthetic sleeve, said nut being threaded on the barrel.

In this connection it is to be noted that the barrel-nut is the nut which clamps the barrel against the receiver of the rifle.

The inner tube itself may be secured by this that it can be slid in or on a centering annulus provided at the foremost end of the barrel and by engaging at its rear end a collar on the barrel nut, the synthetic sleeve at its rear end fitting with an inwardly directed rim around the rear end of the inner tube. By loosening the above mentioned pressure nut the synthetic sleeve and the inner tube may be slid backwards to a small extent, whereby they are released and may be removed.

The invention will be further explained with reference to the accompanying drawing illustrating an embodiment of the hand guard according to the invention.

In the drawing FIG. 1 shows a side view of the hand guard with a portion of the barrel, several parts being shown in section.

FIG. 2 is a plan view of the sleeve consisting of synthetic material and FIG. 3 is a cross-sectional view taken on line III—III of FIG. 1.

Rigidly secured on the foremost part of the barrel is the holder 2 of the front sight and said holder has a centering rim or annulus 3. Threaded on the foremost end of the receiver 4 is the barrel nut 5 which urges against a collar 6 on the barrel and clamps the barrel against the receiver.

The metallic inner tube of the hand guard is split in longitudinal direction and thus consists of two halves 7 and 7'. The foremost end of the inner tube 7, 7' is slid under the centering rim 3 on the holder 2 of the front sight and the rear end of the tube is provided with an inwardly directed rim 8, with which the tube is centered on the barrel nut 5 and which fits around a collar 9 of the barrel nut, said collar being continuous or provided with recesses. Moreover the inner tube 7, 7' is secured against rotation by a projection 10 provided at the inner side of the centering rim 3.

The inner tube 7, 7' surrounds the barrel 1 with space, so that an air chamber 11 is formed around the barrel and the tube also protects the gas tube 12. The centering rim 13 also consisting of two halves is a barrel nut on the inner tube and between said centering rim or annulus 13 and the barrel nut 5 the sleeve 14 consisting of synthetic material is located, said sleeve also being split in longitudinal direction and therefore consists of two halves. The dividing plane of the sleeve 14 is, however, angularly displaced with respect to the dividing plane of the inner tube through an angle of 90°. The foremost end of the sleeve 14 fits under the centering rim 13 on the inner tube 7, 7' and the rear end of the sleeve 14 fits behind the inwardly directed rim 8 of the inner tube by means of an inwardly directed rim 15.

The barrel nut 5 is also provided with an outer screw thread and on said thread a pressing nut 16 is threaded which urges against the end face of the sleeve 14 and therefore both urges the sleeve 14 under the centering rim 13 and locks the inner tube 7, 7'. For removing the sleeve 14 and the inner tube 7, 7' it is only required to screw the nut 16 backwards, and to this end there is a clearance around the barrel nut 5.

An air chamber 17 is formed between the sleeve 14 and the inner tube 7, 7'. The part of the inner tube 7, 7' projecting out of the sleeve 14 has relatively large slots 18, so that the part of the barrel on this place comes in direct contact with the outer air and an efficient cooling of the hottest part of the barrel is therefore, ensured.

At the rear end of the inner tube 7, 7' of the sleeve 14 coinciding openings 19 and 20 respectively are provided, so that at said place the air chamber 11 is in communication with the outer air. By the provision of the
openings 18, 19 and 20 a circulation of air along the barrel is obtained, whereby not only the barrel, but also the whole hand guard is cooled.

What I claim is:

1. A rifle having a rear part, a barrel clamped thereto by a barrel nut, and a centering annulus provided near the front end of the barrel, in combination with a hand guard for mounting on the rifle barrel comprising a metallic inner tube having mounting means for supporting itself on the barrel, a heat insulating sleeve of synthetic material surrounding said inner tube and being split in a longitudinal direction throughout its whole length, said tube being also split in longitudinal direction but along another plane than said sleeve and when positioned on said rifle barrel enclosing an air chamber around the barrel, said sleeve covering only the rearmost portion of the tube and enclosing an air chamber extending completely around said rear portion of the tube, the uncovered portion of the inner tube having openings in its walls to admit air to the air chamber around the barrel, retaining means on said inner tube for seating the forward end of said sleeve, said tube at its rear end engaging a collar on the barrel nut, the sleeve at its rear end being provided with inwardly directed means fitting against the rear end of the inner tube, and a single annular nut for pressing said sleeve forwardly against said retaining means and said tube against said centering annulus to secure the sleeve on the inner tube and the tube on the barrel.

2. A rifle having a rear part, a barrel clamped thereto by a barrel nut, and a centering annulus provided near the front end of the barrel in combination with a hand guard mounted on said barrel, said guard comprising a metallic inner tube having mount rims which support the tube on the barrel and being slid into engagement with said first annulus, said tube being split in a longitudinal direction for its entire length, said inner tube being positioned on and enclosing an air chamber around the barrel, a second centering annulus fixed on the inner tube, said tube at its rear end engaging a collar on the barrel nut, a heat insulating sleeve of synthetic material positioned about said tube with the foremost part of the sleeve engaged by said annulus, said sleeve being also split in a longitudinal direction throughout its whole length but along another plane than said tube, said sleeve covering only the rearmost portion of the tube and enclosing an air chamber extending completely around said rear portion of the tube, the uncovered portion of said tube having openings in its wall to admit air to said air chamber around the barrel, the synthetic sleeve at its rear end being provided with an inwardly directed rim fitting around the rear end of the inner tube, and a nut threaded on the barrel nut and urging against the rear end of the sleeve to clamp the sleeve against said second centering annulus and the tube against said first centering annulus.

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