April 10, 1928. 1,665,955

A. Z. GATEWOOD

KNIFE STRUCTURE

Filed April 28, 1927

Fig. 1.

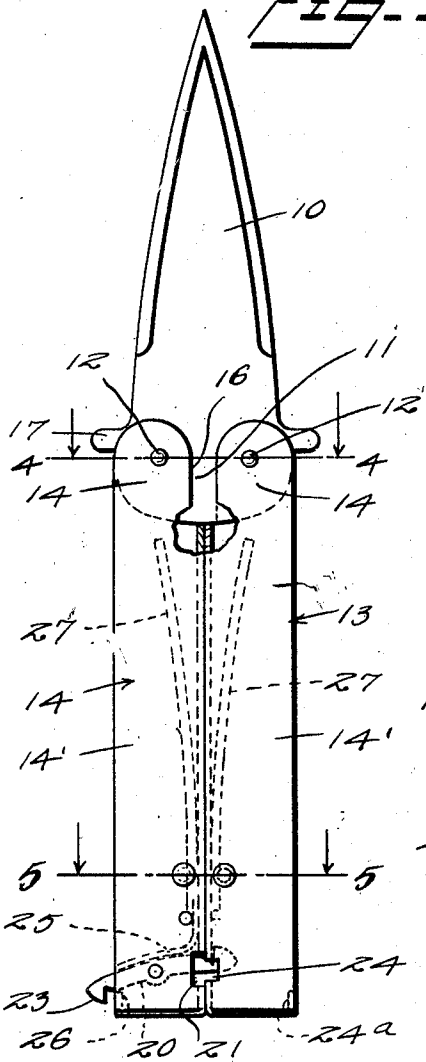


Fig. 2.

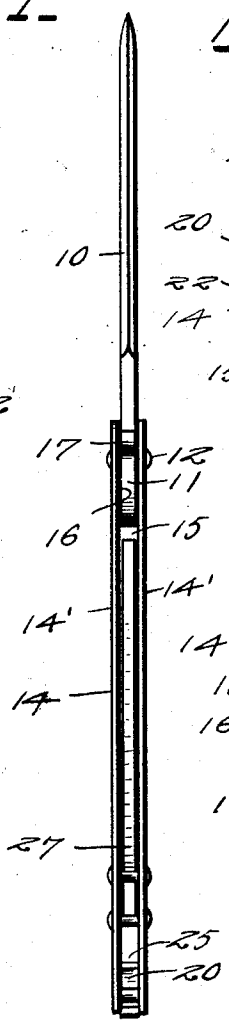


Fig. 3.

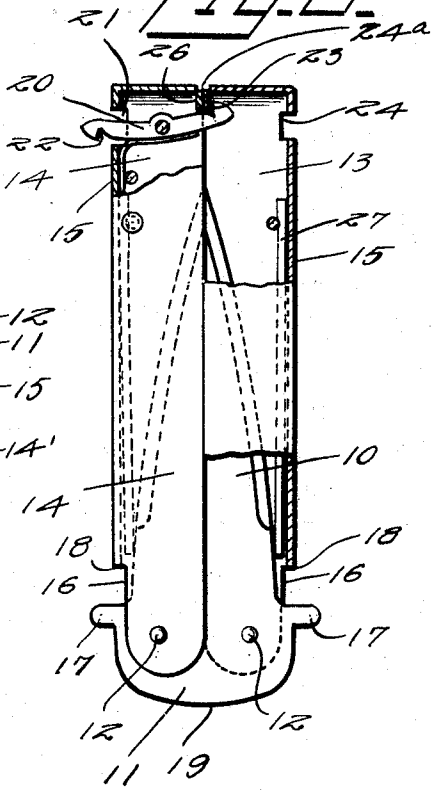


Fig. 4.

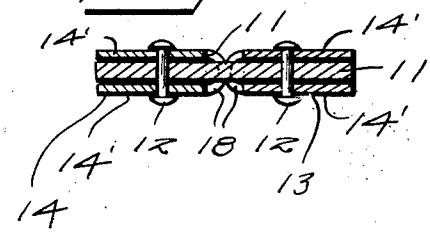
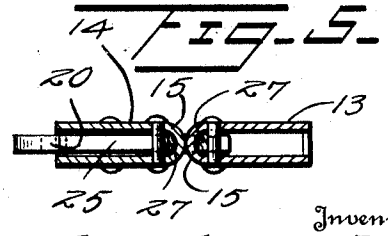


Fig. 5.



Inventor

A. Z. Gatewood.

By Watson E. Coleman

Attorney

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UNITED STATES PATENT OFFICE.

ANDO Z. GATEWOOD, OF TEMPLE, OKLAHOMA.

KNIFE STRUCTURE.

Application filed April 28, 1927. Serial No. 187,347.

This invention relates to knife structures and more particularly to the provision of a knife structure of the pocket knife type, the blade of which is completely concealed when in the closed position and is so housed that dust and dirt cannot have access thereto as freely as in the ordinary pen-knife structure.

An important object of the invention is to provide a knife of that type wherein the handle is formed in two sections swingable upon the blade from positions where they align with the blade and provide an extension of the tang thereof to positions where they house the blade, wherein a single catch may be employed for holding the handle sections in either of said positions.

A further object of the invention is to provide means whereby, when the knife is in the closed position and the catch is relieved, the handle sections will automatically move toward the open position.

These and other objects I attain by the construction shown in the accompanying drawings, wherein for the purpose of illustration is shown a preferred embodiment of my invention and wherein:—

Figure 1 is a side elevation showing a knife constructed in accordance with my invention in the open or operative position;

Figure 2 is an edge elevation thereof in said position;

Figure 3 is a side elevation partially broken away showing a knife in the closed position;

Figure 4 is a section on the line 4—4 of Figure 1;

Figure 5 is a section on the line 5—5 of Figure 1.

Referring now more particularly to the drawings, the numeral 10 generally designates a knife blade, which may be of any usual or preferred construction and 11 the tang of the blade. This tang has directed therethrough transversely spaced pivots 12 upon which are mounted handle sections 13 and 14. Each handle section is in the form of a U-shaped channel, the arms 14′ of which at one end are extended beyond the connection 15 therebetween for engagement with the pivots 12. The extension of these arms provides a slot 16, permitting rotation of the handle sections 13 and 14 about these pivots from the position shown in Figure 1 to the position shown in Figure 3 without interference by projecting guards 17, which may be formed at the forward end of the tang. The ends 18 of the wall 15 are so spaced from the pivots 12 that when the handle sections are in the open position in Figure 1, they engage solidly against the end face 19 of the tang, as the connections 15 come into engagement with one another and render the handle sections rigid to the blade, as long as the outer ends thereof are maintained in engagement with one another.

Means for maintaining these handle sections in engagement with one another comprises a lever 20 inserted in the channel of the member 14 and pivoted to the walls thereof adjacent the outer or free end of this handle member. One end of this lever is projected through a slot 21 formed in the connection 15 of the member 14 and the opposite end thereof projects beyond the outer edges of the arms. Opposite edge faces of this lever are formed at their extremities as latch jaws 22 and 23 and the latch jaw 22, when the handle sections are in their handle forming positions, extends through a slot 24 formed in the connection 15 of the handle section 13 adjacent the free end thereof and is held in engagement with one wall thereof by virtue of a spring 25, which constantly urges the lever about its pivot in one direction. Movement of the lever in this direction is limited by a stop 26 carried by the handle section 14. When the handle sections 13 and 14 are in their housing forming positions, the latch jaw 23 engages a latch bar 24ª extending transversely of the channel of the section 13 adjacent the free end thereof and holds these sections in this position. The channels of each of the members 13 and 14 has secured therein springs 27 which, when the handle sections are in the housing forming position, engage against the inner or tang end of the blade 10 and are compressed thereby, so that when the lever 20 is oscillated to release the latch jaw 23 from the bar 24ª, these springs will automatically shift the handle sections toward their open position, greatly expediting the operation of opening the knife.

It will be obvious that since the handle portions when in their handle forming position engage the shank of the knife and bind thereagainst, a very solid construction is provided, which will prevent the blade from having any movement with relation to the handle without the necessity of providing additional clamping means therefor.

The single latch structure employed simplifies the construction of the knife and enables the same to be cheaply produced.

Since the construction hereinbefore set forth is capable of a certain range of change and modification without materially departing from the spirit of the invention, I do not limit myself to such specific structure except as hereinafter claimed.

I claim:—

In a knife, a blade having a tang, a pair of transversely spaced pivots carried by the tang, a channeled handle section mounted on each pivot and swingable thereabout from a position where the channel thereof houses a portion of the blade to a position where it aligns with the tang, the connection between the arms of the channel in the last named position of the sections engaging the wall of the tang, means for locking the free ends of said handle sections to one another in either of said positions, comprising a lever pivoted in the channel of one of the sections adjacent the free end thereof and having its ends extended to opposite sides of the section, said ends being formed at opposite faces of the lever as latch jaws, the other of the sections having a bar extended transversely of its channel with which one of the latch jaws engages when the sections are in the first named position and having an opening formed in the connection between the arms of the channel against one wall of which the other of the latch jaws engages when the handle sections are in the last named position.

In testimony whereof I hereunto affix my signature.

ANDO Z. GATEWOOD.