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1,287,775 2/1962 France 273/84
 3,989 12/1931 Australia 273/84
 2,533 1884 Great Britain 231/5
 189,331 5/1937 Switzerland 231/5

OTHER REFERENCES

"Black Belt"; Vol. VII, No. 3, March 1969, Published—
 Los Angeles, Calif., copy in Grp. 334; 273/84 pgs. 14, 18, &
 19.

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[54] **HAND WEAPON**
 3 Claims, 2 Drawing Figs.

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[56]

References Cited

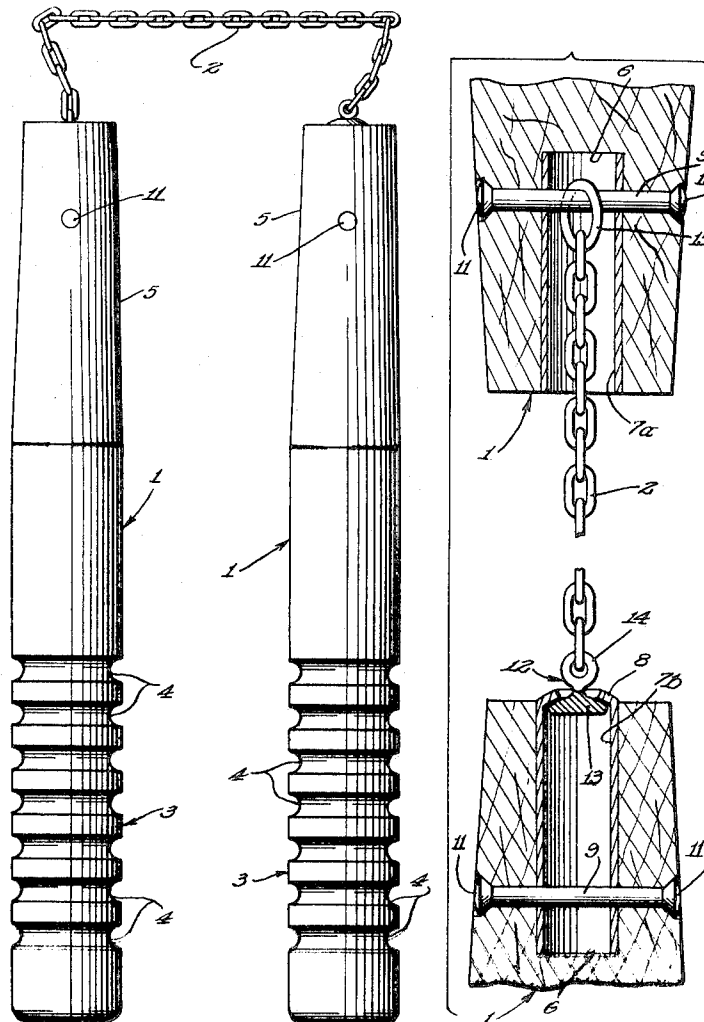
UNITED STATES PATENTS

498,753	5/1893	Tucker	272/75
3,454,274	7/1969	Kaneshiro	272/75 X
744,401	11/1903	Polak	231/5
765,605	7/1904	Wade	273/84
1,909,932	5/1933	Digel	273/84
3,323,796	6/1967	Carlson	273/1

FOREIGN PATENTS

1,109,242	1/1956	France	272/75
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ABSTRACT: A hand weapon, generally similar in usage to a nightstick or baton, comprising two rigid elongated members, each connected to one end to the other by a nonrigid element such as a length of chain, whereby each member may swing relatively independent of the other, within the limitation imposed by the chain with respect to separation of the connected ends of said members, each member being provided with a hand-gripping portion adjacent the free end thereof whereby one member may be grasped in each hand and utilized in cooperation with each other, or either member may be grasped and the other member permitted to swing loosely.



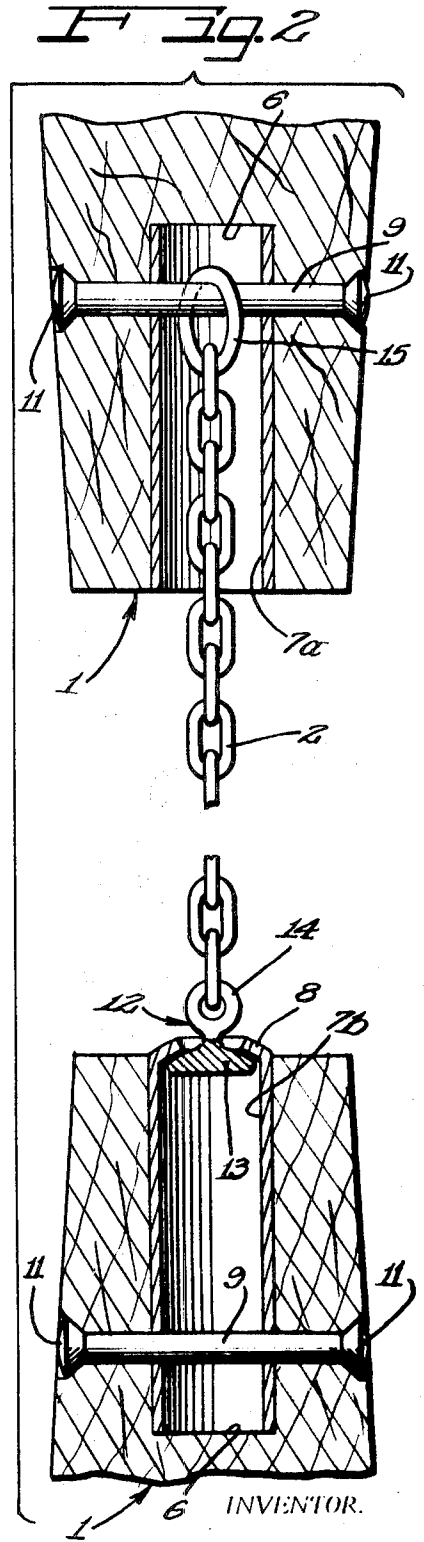
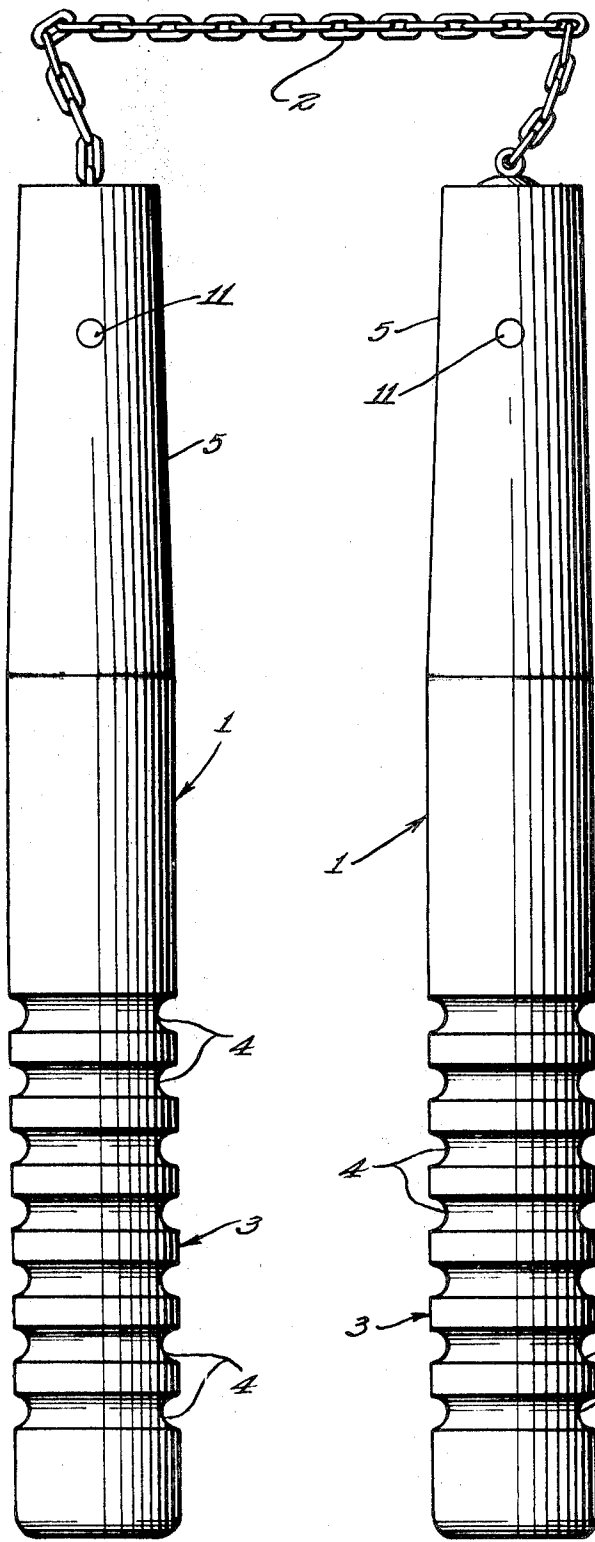


Fig. 1

William Hall

BY *Dill, Sherman & Davis, Char. & Assoc.*

ATTORNEYS

HAND WEAPON

BACKGROUND OF THE INVENTION

The invention is directed to a hand-operated weapon which may, for example, be used as a replacement and/or a supplement for a nightstick or similar member and thus is intended primarily for usage by police and other law enforcement agencies and the like.

In the use of the usual nightstick or its equivalent the user, when under attack, normally endeavors to strike the bony parts of the body, as for example, joints and similar exposed areas, with the objective being to temporarily take the opponent out of combat without inflicting serious injury thereupon. Thus blows of the type referred to, while momentarily quite painful, under normal usage will inflict only minor injury. However, the use of a relatively small nightstick psychologically does not have an exceptionally strong deterring effect on a would-be attacker and its construction and usage is such that the available force and leverage associated with its use is not extremely great.

Furthermore, while such a nightstick may, under certain conditions, be employed as a "come along," as well as a weapon, its single piece, relatively unwieldy construction restricts such type of usage.

The present invention therefore has among its objects the production of a hand weapon which is at least comparable in size and overall bulk to the usual nightstick, preferably being even more compact, which at the same time will have a considerably greater psychological effect on a would-be assailant than the usual nightstick or similar weapon.

Another object of the invention is the production of such a weapon which will enable the user to generate considerably greater impact force and leverage on an opponent.

A further object of the invention is the production of such a weapon which, when not in use, will take up relatively little space, for example having a length less than that of the usual nightstick, but which at the same time, when in use, will have an effective length greater than the usual nightstick.

The combination of these various features in a single structure thus provides a weapon of a relatively great versatility, making it a considerably more valuable weapon than the usual nightstick or a 36 inch baton.

BRIEF SUMMARY OF INVENTION

The present invention contemplates the production of a hand weapon which comprises two elongated pieces of hard wood or the like which, for example, may be approximately 12 inches in length, one end of each being connected to the other by a suitable flexible member as for example a length of chain, with the respective free ends of the members being provided with hand gripping portions whereby either or both of the members may be manually grasped. It will be apparent that by grasping one of the members adjacent its free end and utilizing the same as a handle to swing the other member through the air a very formidable weapon results which psychologically has a considerably greater subduing effect than a nightstick or the like, thereby possibly preventing an attack which might otherwise take place.

As subsequently discussed in detail the weapon readily adapts itself to a manual of usage with respect to the manner in which it may be swung, held on guard, or utilized as a "come along" device.

BRIEF DESCRIPTION OF DRAWINGS

In the drawings wherein like reference characters indicate like or corresponding parts;

FIG. 1 is a side elevational view of a weapon embodying the invention; and

FIG. 2 is an enlarged axial section of the ends of the respective hand-engageable members, illustrating details of the connection therebetween.

DETAILED DESCRIPTION

While the concept of the present invention may be utilized in weapons having proportions which may differ from those of the embodiment of the invention illustrated, the proportions illustrated and hereinafter described have been found to be particularly suitable for average usage to which the weapon may be put by law enforcement officers and the like.

Referring to the drawings, and particularly to FIG. 1, the reference numeral 1 designates respective hand-engageable members of elongated configuration, each of which is connected at one end to the other by a nonrigid member or element 2, illustrated in the drawings as a length of flexible chain. The opposite free end of each member 1 is provided with a hand-gripping portion 3, illustrated as being formed by a series of spaced grooves 4 to produce a hand grip which is both comfortable on the hand and at the same time permitting a firm grasping of the member from which the hand will not readily slip. Each member preferably tapers from the handle end thereof toward its connected end as indicated at 5.

The members 1 preferably are constructed from respective pieces of hard wood, as for example oak or ash, and I have found that a very effective weapon results when the respective members are so dimensioned and proportioned that their individual overall length is approximately 12 inches, with each member being approximately $1\frac{1}{4}$ inches in diameter at the handle end thereof and approximately $1\frac{1}{2}$ inches in diameter at the smaller ends thereof, the tapering preferably taking place intermediate the connected end and adjacent end of the handle portion as may be deemed desirable.

The connection between the two members preferably should be such that, other than the fixed length of the connection therebetween, each member should be capable of relatively free movement with respect to the other member. Consequently, if the connecting member is not of a construction which will enable complete freedom between the two opposite ends thereof, with respect to twisting and the like, it is desirable to provide a swivel-type connection between such connecting member and at least one of the members 1. FIG. 2 illustrates the use of a connecting member in the form of a chain, one end of which is provided with a swiveling connection to its associated member and the opposite end is connected to its associated member in fixed relation. In actual practice it is believed preferable to employ members of identical construction, in which case each end of the chain would be provided with a swiveling connection to its associated member. However, FIG. 2, for the purposes of illustration, presents both forms of construction.

In this figure the chain 2 is illustrated as comprising a series of oval links and each of the members 1 is provided with a respective axially extending bore 6 which opens on the adjacent end of the associated member and is adapted to receive a respective tubular bushing or sleeve 7a, as illustrated with respect to the upper member 1, or 7b, as illustrated with respect to the lower member 1. The sleeve 7a consists of a short section of tubular stock, open at both ends and illustrated as being of substantially the same length as the bore 6, while the sleeve 7b is of similar configuration but is provided at its outer end with an inwardly directed annular flange 8, the inner surface of which is of generally arcuate configuration. The sleeve 7b is secured to the member 1 by a pin 9 which extends transversely through the sleeve 7b and the adjacent portion of the member 1, terminating, in the embodiment illustrated, in rivet heads 11, or the like, by means of which the pin is retained in operative position. The adjacent end of the chain 2 terminates in a terminal member 12 which is provided with a more or less arcuate-shaped head 13 disposed within the sleeve 7b while the outer end of the member 12 is provided with an eye 14 through which the last link of the chain 2 passes. Thus the connecting member 12 and the adjacent end of the chain 2 may freely swivel with respect to the sleeve 7b and adjacent member 1, eliminating any possibility of the

chain becoming twisted and tending to wrap-up into a relatively inflexible mass.

The sleeve 7a is similarly anchored to the associated member 1 by a pin 9, provided with heads 11 at its respective ends but in this case the adjacent end of the chain 2 is provided with an enlarged ring 15 of a size to encircle the intermediate portion of the pin 9 whereby the ends of the pin serve to anchor the sleeve 7a to the member 1 while the intermediate portion bridging the sleeve 7a as the securing means for the adjacent end of the chain.

It will be apparent that while I have illustrated a swivel connection between the chain 2 and one of the members 1, and a nonswiveling connection between the other end of the chain and the other member 1, which thus enables relative free axial rotation of one member relative to the other, as previously mentioned, in production it may be desirable to provide a uniform construction for both members as for example constructing both members with a swivel connection. Likewise, while I prefer to employ at least one such swivel connection, a weapon constructed in accordance with the present invention utilizing two nonswiveling connections presents considerable advantages over previous weapons such as nightsticks and the like. It is believed apparent that a weapon, constructed in accordance with the invention, possesses considerably greater versatility in usage, which with the increased speed with which it may be used and any psychological advantage derived from its use, supplies the law enforcement officer with an extremely valuable weapon, particularly for crowd control, riots, disarmament etc.

In its active use against an opponent, one stick is held and the other swung through its connection with the held stick to strike the opponent in the desired area, usually the bony parts of the body, especially joints and exposed areas. While a straight or single swing either upwardly, downwardly or horizontally to either side may be employed, considerable speed and force may be obtained by changing the direction of movement of the held stick whereby the action corresponds to an L-shaped figure, for example downwardly and horizontally or horizontally and downwardly, or for example a figure 4 or figure 8 swing. Obviously with such changes in direction a more or less "whip action" results to produce a maximum speed and force in the free stick. The movement may be produced by a snap action of the wrist and with a little practice considerable dexterity can be achieved in its use. It will also be appreciated that the combined or overall length of the sticks, when extended, is greater than the usual nightstick, thus increasing the effective range, and at the same time a considerably greater psychological advantage is acquired in the use of the present invention as distinguished from a simple nightstick or baton, whereby the use of the present weapon has a considerably greater deterring effect on a would-be attacker than previous weapons of this general type. It is believed that this may be accounted for, at least in part, by the fact that a person, probably by instinct, is usually more hesitant to seek contact with a rapidly moving element than with a stationary element, even though the latter may be poised to deliver a blow.

The present invention thus is a very effective defensive weapon for crowd or riot control, as well as disarmament of an opponent and in this connection may be held in any one of several "on guard" positions from which it may be effectively swung to strike an opponent in the desired area, which as previously mentioned primarily involve the bony parts of the body and in particular joints and exposed areas.

To facilitate its use, examples of "on guard" positions and various types of blows which can be imparted with the weapon will be briefly described.

In one on guard position the weapon may be grasped with both hands, each holding one stick, the hands being positioned at the sides of the body with the sticks disposed in front of the user in a horizontal plane at about hip level. From this position action may be taken with either hand, merely releasing the other hand and permitting the released stick to swing in the

desired direction in correspondence to the movement of the held stick. In this action, as well as action from other positions, additional force may be derived by applying force to the stick to be held while simultaneously resisting such movement by retaining hold of the stick which is to be released whereby upon such release a spring action is developed in addition to the force which might be built up merely by movement of the held stick.

Another on guard position would be holding one stick in one hand, for example, the right hand with the stick pointing generally rearwardly and the free stick, likewise pointing rearwardly, clamped between the right upper arm and the body.

A third on guard position, which may be taken from the position just described in which the one stick, which may be termed the "held" is gripped in the hand, for example the right hand, with the elbow raised to bring the forearm more or less vertically and the held stick extending rearwardly and slightly downwardly. At the same time the left arm is brought across the front of the body and the other stick grasped at its handle portion with the left hand. When in this position a force buildup may be produced, prior to the striking of a blow, by drawing downwardly with the left hand and simultaneously attempting to resist such movement with the right hand, whereby upon release of the left hand the buildup force in the right hand is substantially instantaneously released which, coupled with a downward movement of the right hand results in a blow from the free stick which is materially greater than could be derived from merely the free swing of a loose stick or the swing of a one-piece nightstick or the like.

This type of blow is considerably more effective in the disarmament of an opponent, for example by striking an opponent's weapon, due to the vastly greater impact force produced.

A weapon constructed in accordance with the present invention also offers considerable advantages in its use as a "come along," wherein the weapon is utilized to exert force on an opponent or prisoner to force him to move as desired by the restraining officer.

Thus an opponent may be held from the rear by bringing one of the sticks underneath the opponent's jaw, gripping the stick at each end thereof or the opponent could be restrained by bringing each stick over the opponent's shoulder with the chain underneath his chin and applying pressure from the rear. Other holds could be employed, such as those capable of utilization with a single nightstick including crotch holds, arm locks and the like.

It will be appreciated from the above that the present invention enables the production of a very versatile and effective weapon, having decided psychological advantages as well as combative advantages.

Having thus described my invention it will be obvious that variations and modifications may be effected without departing from the spirit and scope of the novel concepts of my invention.

I claim:

1. A hand weapon for both defensive and offensive use by one individual, particularly law enforcement officers and the like, comprising a pair of elongated rigid hand-engageable members of generally circular cross section constructed from a relatively hard dense material, each of such members being approximately 12 inches in length and having a hand-receiving portion adjacent one end thereof of substantially a uniform maximum diameter which will permit it to be readily grasped in the hand, as a club, said hand-receiving portion having a plurality of circumferentially extending grooves therein to enable a nonslip grasping thereof, the opposite end of each member having an axially extending bore therein, a tubular sleeve in each respective bore, a bore extending transversely to the axis of said bore and intersecting the same and said sleeve, and a length of link chains operatively connecting the sleeve ends of said members, said chain being of such length that the two members and chain have a fixed combined length of between approximately 27 to 30 inches, which will permit

one-handed use thereof as a unitary weapon, each of said sleeves being secured to the associated member by a pin extending in the said transverse bore therein and passing through such sleeve, each end of said link chain being operatively connected to the associated sleeve, at least one of the ends of said link chain being secured to the associated sleeve by the associated transverse pin.

2. A hand weapon for both defensive and offensive use by one individual, particularly law enforcement officers and the like, comprising a pair of elongated rigid hand-engageable members of generally circular cross section constructed from a relatively hard dense material, each of such members being approximately 12 inches in length and having a hand-receiving portion adjacent one end thereof of substantially a uniform maximum diameter which will permit it to be readily grasped in the hand, as a club, said hand-receiving portion having a plurality of circumferentially extending grooves therein to enable a nonslip grasping thereof, the opposite end of each member having an axially extending bore therein, a tubular sleeve in each respective bore, a bore extending transversely to the axis of said bore and intersecting the same and said

sleeve, and a length of link chains operatively connecting the sleeve ends of said members, said chain being of such length that the two members and the chain have a fixed combined length of between approximately 27 to 30 inches, which will permit one-handed use thereof as a unitary weapon, each of said sleeves being secured to the associated member by a pin extending in the said transverse bore therein and passing through such sleeve, each end of said link chain being operatively connected to the associated sleeve, at least one of the ends of said link chain being secured to the associated sleeve by the associated transverse pin, said connection between the two hand-engageable members including pivotal means operative to enable the two hand-engageable members to freely pivotally move relative to each other about their respective longitudinal axes.

3. A hand weapon according to claim 2, wherein said pivotal means comprising a flange on one of said sleeves and a headed terminal member provided on the corresponding end of said chain, which head is disposed in the cooperable sleeve and retained therein by said flange.

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