

SAFETY IN FENCING

by ERIC LAHMY

Although fencing is one of the safest activities, accidents such as that which occurred last July during the World Championships at Barcelona (ESP) still remain possible,

By studying equipment - masks, clothing and weapons - the International Federation is endeavouring to eliminate the risks.

One of the most constant yet least known preoccupations of the International Fencing Federation has to do with the safety of its players, especially at international level. This interest is expressed in the long, exacting and unceasing efforts of the "S.E.M.I." Commission, in collaboration with equivalent bodies formed within the different national fencing federations.

While the champions train for battle, sword in hand, their leaders, in close collaboration with official institutions and private bodies, try to fix certain standards, such as:

- the degree of force necessary to pierce the fabrics used in the manufacture of clothing;
- the breaking point of a steel blade.

The results of these experiments are recorded in extraordinarily minute detail. Thus, the federal standard which determine the square centimetre resistance of a jacket or plastron fill three pages of tables, and the Masks sub-committee, to take one example amongst many, supervises the application of details which would never occur to the uninitiated: the thickness of the wire mesh (at least one millimetre) or the width of the links (not more than 2.1 mm). In the same way, the profile of the mask, in preformed wire mesh must be designed and stitched by a puncher; and the bib, carved out of a material of proven solidity or Kevlar, to protect the neck region from any intrusion. To these precautions is added an inner protection which must be padded to prevent the mask touching the face.

So much energy expended in such an intense, anxious and punctilious manner might lead one to

believe that fencing is a high risk sport! However, nothing could be further from the truth, particularly if one compares fencing to most mechanical combat sports such as motorcycling, car racing, even downhill skiing and of course boxing.

Since the Second World War, more than three hundred boxers have died following bouts in the ring, while it is difficult to find more than four or five fatal accidents, anywhere in the world, which have occurred on a fencing piste.

At least one of these tragedies aroused much comment and caused much ink to be spilt; it occurred at the World Championships in Rome in 1982 and cost Soviet foil champion Vladimir Smirnov his life.

Smirnov was playing the German (FRG), Matthias Behr, for the team title. The two men attacked at the same time, each flinging himself against the other. Then, in an extremely rare occurrence, Behr's blade buckled and broke clean on Smirnov's jacket. The momentum of the two men did the rest.

Two years earlier, another Soviet fencer, Vladimir Lapitsky, suffered a serious accident at the Moscow Games. He came out of it with a pierced pectoral muscle and a bad fright. Serious damage is extremely rare. However, in June 1983, a British fencer was fatally injured during a foil assault. Eight months later, yet another foil fencer, a seventeen-year-old German, fell victim to a fatal blow dealt by his thirteen-year-old opponent, whose weapon broke at an awkward moment, and this despite protective clothing, and the fact that his opponent did not have the strength of a grown man.

The problem is, alas, that while the steels used for the manufacture of different arms (sabre, épée, foil), are of excellent quality, the breaks which occur unexpectedly in mid-assault turn them by a single stroke into murder weapons.

Despite the many checks before each tournament, it is impossible to provide perfect protection.

Now death is not part of the game and is not, and ought never to be, a professional risk.

Here lies the paradox; the warmongering origins of fencing are undeniable. Those duels on the field of battle or honour were no joke, and often ended in disaster. But one must be wary of being fooled by appearances into thinking that any of this warlike violence remains today. Not only do the rules of combat provide that "any assault or match must retain a character of courtesy and honour" (Heading I, chapter VI), but they add that "any violent act (flèche ending in a fall or by an impact jostling an opponent) or disorderly play, abnormal movements, any action which the President considers dangerous (for example, a running attack with loss of balance, brutally dealt blows), are absolutely forbidden".

SIMULATED VIOLENCE

There can be no doubt about it that while over the centuries fencing has developed into an art of defence and attack, causing injury and even death, in 1914 when the Marquess of Chasseloup-Laubat and Paul Anspach drew up the rules of the sport, it became a sort of "ballet" in which the "hits" retained a traditional character. Fencing continued to mime murder, certainly, but no more than that. Brutality was simulated, unlike combat sports most of which, whatever one may say, do give themselves licence to "destroy" the opponent, admittedly within the framework of strict regulations.

Death, then, does not prowl about the fencing piste. However, the International Federation works hard to avoid the rare but still possible accidents. Joint Commissions, made up of industrialists and technicians, have the task of making inquiries and putting forward solutions. The Chairman of the Safety Committee of the Governing Board of the FIE up until May 1985, the Italian Sydney Romeo, is an engineer. The work of this body is potentially rich in economic spin-offs of varying degree. The work of the Safety Committee, which is based on a precise knowledge of the risks of accident, also has to take account of the need to retain the character of a

sport which is very attached to its traditions and little inclined to allow itself to be shaken from the habits of centuries.

What are these risks? There have been criticisms of the so-called "orthopedic" hilts following the fatal accidents which have been recorded in recent years. This hilt, while it enables a better grasp on the pommel, makes the "phrase d'armes" more dangerous, while the French hilt with a straight or gently curved handle, which has been more or less abandoned, and is less steady in the hand, gives less penetrating power.

The warmly recommended investigation into garments which the blades cannot penetrate appeared all the more urgent since young fencers, for reasons which it seems have more to do with elegance and comfort, are turning towards finer, lighter, better fitting costumes, in preference to the more rigid, resistant clothing favoured by previous generations. But the most earnestly desired reforms have to do with the refereeing of fights.

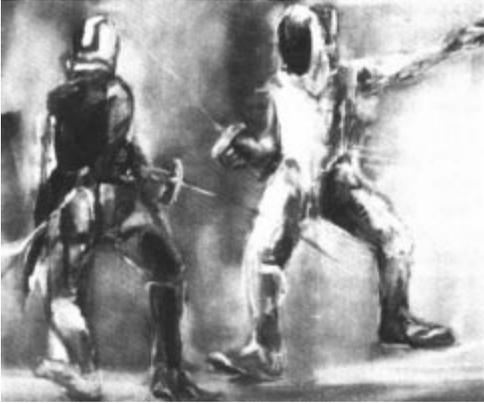
Laying down the rules for assaults comes back to what appears to be a sort of relaxation, even abandonment of the rules, a resignation in the face of more aggressive methods and behaviour. This is what appears most urgent in the eyes of observers.

In 1984, the Executive Committee of the FIE asked presidents of juries to be more strict in the case of close combats and to penalize any physical contact or unorthodox fencing behaviour which might endanger an opponent.

STRICTER RULES

Many fencers have declared themselves dissatisfied with the presidents whose role it is to order the beginning and end of an assault and to remind players of the conventions which govern the combat, the basic rules which define the manner of play. It is the presidents who in the end have allowed imperfect attacking movements and not stepped in to end an action, even a dangerous one, before the electric light which penalizes a hit has appeared on the panel. This is particularly true of foil fencing.

Nevertheless the rules for fencing matches are quite clear. They specify that the attack must be preceded by the full extension of the arm. "The attack, it is written, is the initial offensive action executed by stretching out the arm. Now today a great many hits can be seen to be accorded to blows dealt at close range", note two fencing masters from



Peter Hoppe: Fencers (extracts from the catalogue of the "Sport in der Bildenden Kunst der DDR" exhibition (see page 481).

Los Angeles, Theodore Katzoff and Nikolai' Karjagin.

Why is close range incriminated ? Because, they add, "it is in these situations of close combat where the blows are dealt with arm bent that control of the combat may be lost and the blade broken because of the force used in the attack".

"For the safety of fencers", continue the two technicians, "we suggest that fights be interrupted each time the players come too close, irregardless of whether or not a light has appeared on the panel. A parry ought not to be authorized when the fencer uses an arm or elbow instead of effecting it with the blade or the guard, when he is not content with pushing or jostling his opponent". Although forbidden by the rules, body contact is in fact too often permitted in foil fencing. This practice is severely criticised by Josef Byrnes, International Secretary of the United States Fencing Association. Byrnes, who is also armourer to the American team, states, "it often happens that the two opponents pass their time on the piste jostling and rushing at each other". This "physical" sword play - "the young ones don't know any other way" - is due in part, in his view, to the superb fencing photographs which are obtained through the exploitation of the least orthodox movements and situations.

DANGER: BROKEN BLADE

In fact, magazines, in preference to technical gestures, choose to publish photographs in which the

fencers find themselves in rather unclassical and often quite eccentric positions. "This makes for good photographs and bad examples for training", concludes Mr. Byrnes.

For Mr. Chaba Pallaghy (USA member of the FIE Executive Committee) "The épée is probably the weapon which has remained truest to the original purity and spirit of fencing. "I hate to admit it", he goes on, "for I am a sabre fencer myself. But at least in the épée you do not see the exploitation of that style of combat which is akin both to boxing and running. Besides, in the old school, it was said that you were nimble-fingered if you were able to combine the right number of contractions and relaxations of the fingers on the hilt, and you let go your weapon when you had hit. Today, fencers keep their rapiers stretched out in front of them".

Raoul Cléry, the influential editor of the French magazine "Escrime" in a remarkable article on the matter, stressed the importance of the rules. As neither the warnings nor the penalties given to fencers have any effect, he hopes that the rules and also the conventions of combat will be reinforced.

The conventions are, he says, particularly important in foil and sabre where the fencer has to carry out the correct attacking movement beginning by stretching his arm out completely, while the opponent may attack after having parried the first attack. In sabre fencing, most of the blows counted are taken by the side of the blade, which is not possible with the foil or épée where only a blow dealt with the point of the blade sets off the electronic signal and marks a "hit".

The danger is thought to be less for the épée than for the foil since the blade is heavier and épée fencers place greater distance between each other. The épée fencer may touch any part of the body, arms and legs included, while the foil fencers must touch the torso.

The object which kills or maims is of course the blade! To be precise, a broken blade. Attempts are being made to manufacture blades which do not break, where no breaking point would cause the blade to split in two, exposing an extremely sharp tip. Stronger, more resistant blades, which therefore break less frequently, have been studied.

Sydney Romeo, Italian President of the FIE's "S.E.M.I." Safety Committee for the last Olympiad, suggested some "alternatives" to current weapons. A Hungarian rapier was experimented with which used a very original exploding safety device. When force was applied beyond a certain point, a detona-

tor actually made the blade shoot out of the hilt and it had to be re-armed. In theory, the snap was immediate. This solution was thought to be very inconvenient and was abandoned.

There have also been experiments with a foil with a fibreglass "heart". A blade, approved for experimental use, was unanimously accepted.

MASK OR MOTORCYCLE HELMET ?

Researches have been made into testing the solidity and viability of weapons and specific trials have been carried out on blades. But it finally proved impossible to determine the average life of a blade according to its period in use. No one can know when a sword will break or threaten to break. Its solidity may be put to a severe test in a single assault; from one moment to the next, a weapon thought to be viable becomes nothing of the kind.

The mask, which was pierced during the assault by the German Matthias Behr on the unhappy Vladimir Smirnov, has been subjected to very close examination and research. Questions have been raised as to how its solidity, its impenetrability to the most furious blows could be considerably improved.

Despite minutely detailed examinations carried out at each tournament, a single fatal accident sufficed to cast doubt over everything. The mail is subject to corrosion due to heavy facial perspiration during the assault and the blows dealt during assaults.

Transparent plastic masks have been tried out, a sort of motorcycle helmet. But in the view of Mr. Pinelli, French security officer, air does not circulate inside them, condensation forms, and the match ends in a blinding steam bath. In addition, the plastic scratches easily and to top it all it does not register the hits very well.

Another innovation thrown in the wastebin. None of these arguments have convinced Pranimir

Zivkovic. "The real problem", he says, "is that it is practically impossible to touch any of the fencers' habits. These are very conservative people".

A chest-protector in fibreglass (a stable, non-modifiable substance) has been perfected for women. It should, it is believed, prove a useful substitute for metal or leather. This protective item may be worn under the jacket.

As far as fabrics are concerned, the French, in collaboration with a French manufacturer, and at the request of the French Textile Institute, researched into, and believe they have found, the answer to top level international demands for a material combining comfort and good appearance on the one hand, and safety on the other. A fabric has been found which will not pierce below 50 or 60 kgs of pressure, which has eight layers of different weavings, and which, according to its inventors, will do away with the need for a breastplate.

Thanks to this work, fencing, despite increasing physical contact in the assaults, will remain what it is: a formative sport, which eliminates high risks. Injuries are rare and pardonable. Sometimes an accident does occur. It is not part of the game. And it does not necessarily discourage the person who suffers it from continuing to enjoy and practise fencing. Like Dan de Chainé de Clermont, the Technical Director at the Olympic Games in Los Angeles, who remembered in his youth having had his shoulder pierced through during a tournament. "I was concentrating so hard on my assault that I felt nothing", he recalled.

Before adding that in his opinion fencing is not dangerous, "this sport has always considered safety as something of primary importance".

E. L.

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