# **GHSFL FENCING RULES**

July 2017

The safety measures specified in the Rules are only designed to increase the fencers' safety and cannot guarantee it. They cannot, therefore, whatever the manner in which they are applied, impart responsibility to the GHSFL, or to the organizers of competitions, to the officials or personnel who carry out such organization, or to those who may cause an accident.

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## **COMPETITIONS**

Competitions are fenced on a strip. The area of the strip must be delineated with tape The strip is from 1.5 meters to 2 meters wide.

The strip is 14 meters long, so that each competitor, being placed at 2 meters from the center line has at his disposal for retreating a total distance of 5 meters without it being necessary for him to cross the rear limit of the strip with both feet.

Five lines should be drawn very clearly on the strip at right angles to its length, as follows: one center line which must be drawn across the whole width of the strip

two on-guard lines at 2 meters on each side of the center line. These must be drawn across the whole width of the strip two lines at the rear limits of the strip, which must be drawn across the whole width of the strip, at a distance of 7 meters from the center line.

The last 2 meters of the strip before these rear limit lines must be clearly distinguished—if possible by a different color of strip—to make it easy for the fencers to be aware of their position on the strip

The field of play should have an even surface. It should give neither advantage nor disadvantage to either of the two fencers concerned, especially as regards light.

### RESPONSIBILITY OF FENCERS

Fencers arm, equip and clothe themselves and fence at their own responsibility and at their own risk.

Any fencer who warms up or trains with another fencer on site at a GHSFL competition must wear full fencing clothing and equipment which conforms with the USA Fencing regulations.

Any person giving a lesson must wear a fencing jacket or coaches fencing jacket, fencing glove and a mask conforming to the regulations.

Any fencer taking a lesson must wear full fencing clothing.

The Bout Committee must penalize any person not following this rule with a yellow card, followed by a black card in case of a repeated infringement.

# HOLDING THE WEAPON

Defense must be effected exclusively with the guard and the blade used either separately or together. If the handle has no special device or attachment or special shape (e.g., orthopedic), a fencer may hold it in any way he wishes and he may also alter the position of his hand on the handle during a bout. However, the weapon must not be—either permanently or temporarily, in an open or disguised manner—transformed into a throwing weapon; it must be used without the hand leaving the grip and without the hand slipping along the grip from front to back during an offensive action.

When the handle has a special device or attachment or has a special shape (e.g.,

orthopedic) it must be held in such a way that the upper surface of the thumb is in the same plane as the groove in the blade

The weapon must be used with one hand only; a fencer may not change hands until the end of the bout, unless the Referee gives special permission in the case of injury to the hand or arm

## **COMING ON GUARD**

The fencer whose number is called first should place himself on the right of the Referee, except in the case of a bout between a right- and a left-hander, if the left-hander is called first.

The Referee places each of the two competitors in such a way that the front foot of each is 2 meters from the center line of the strip (that is, behind the "on-guard" lines).

Competitors are always put on guard, whether at the beginning of the bout or subsequently, in the center of the width of the strip.

When placed on guard during the bout, the distance between the two competitors must be such that, in the point in line position, the points of the two blades cannot make contact. After the scoring of a valid touch the competitors are put on guard in the middle of the strip.

If no touch is awarded they are replaced in the position that they occupied when the bout was interrupted.

At the beginning of each period (in a direct elimination bout) and of any additional minute of fencing time, the fencers are placed on guard in the middle of the strip. The competitors may not be replaced on guard, at their correct distance, in such a way as to place behind the rear line of the strip a fencer who was in front of that line when the bout was halted. If he already had one foot behind the rear line, he remains in that position.

If a fencer has crossed the lateral boundaries of the strip, he may be put back on guard at the correct distance even if this places him behind the rear line and thereby causes a touch to be awarded against him.

Competitors come on guard when the Referee gives the order "On guard," after which the Referee asks, "Are you ready?" On receiving an affirmative reply, or in the absence of a negative reply, he gives the command for fencing to commence with the word "Fence." The fencers must come on guard correctly and remain completely still until the command "Fence" is given by the Referee.

## **BEGINNING THE BOUT**

The start of the bout is signaled by the word "Fence." No movement made or initiated before the word "Fence" is counted

## STOPPING THE BOUT

The bout stops on the word "Halt," except in the case of special events occurring which modify the regular and normal conditions of the bout

As soon as the order "Halt" has been given, a competitor may not start a new action; only the movement which has begun before the order was given remains valid. Everything which takes place afterwards is entirely non-valid

If a competitor stops before the word "Halt," and is touched, the touch is valid.

The order "Halt" is also given if the fencing of the competitors is dangerous, confused, or contrary to the Rules, if one of the competitors is disarmed or leaves the strip, or if, while retreating, he approaches too near the spectators or the Referee

### LEAVING THE STRIP

The Referee may not allow a fencer to leave the strip, save in exceptional circumstances. If a competitor does so without permission he may incur penalties

# FENCING AT CLOSE QUARTERS

Fencing at close quarters is allowed so long as the competitors can wield their weapons correctly

## CORPS A CORPS AND FLECHE ATTACKS

It is clear that in épée a corps à corps (without brutality of violence) that results from a flèche attack or by advancing vigorously even several times in succession is not a violation of rules, and does not merit a penalty.

In épée, a fencer who either by a flèche attack or by advancing vigorously brings about a corps à corps even several times in succession (without brutality or violence) does not transgress the basic conventions of fencing and commits no fault thereby.

However, if a fencer jostles his opponent, whether intentional or not, the fencer commits a violation of the rules and is penalized.

A fencer (who intentionally causes corps à corps to avoid being touched) or (who jostles his opponent) is penalized according to Articles t.114, t.116, t.120 of the USA Fencing Rules of Fencing.

Article t.63 goes on to state that such a jostle is considered as an act of intentional brutality and is punished as such.

t.63 3 The "flèche ending systematically in a corps à corps" referred to in this article must not be confused with the "flèche resulting in a shock which jostles the opponent" which is considered as an act of intentional brutality in all three weapons and is punished as such (cf. t.87.2, t.120).

Article t.63 3 references t.87.2. which describes a flèche attack which finishes with a collision jostling the opponent, as an irregular action which is strictly forbidden.

Fencing etiquette t.87

2. All bouts must preserve the character of a courteous and frank encounter. All irregular actions (flèche attack which finishes with a collision jostling the opponent, disorderly fencing, irregular movements on the strip, touches achieved with violence, touches made during or after a fall) are strictly forbidden (cf. t.114–t.120).

Article t.87 2 references t.120 which is the Schedule of Offenses and Penalties. This Schedule specifically classifies jostling as a Group 1 Offense and as a footnote, includes the annulment of any touch scored by the fencer at fault. 2

Article t.116 provides the penalties for Group 1 Offenses.

The First Group of offenses

t.116 The first infringement, in this First Group, is penalized by a Yellow Card (warning). If during the same bout the fencer commits the same or a different offense in this group, the Referee penalizes him, on each occasion, with a Red Card (penalty touch). If the fencer at fault has already been penalized by a Red Card because of an offense listed in the Second or Third Group, he receives a further Red Card for his first infringement relating to the First Group.

Unfortunately, all this having been documented, USA Fencing Rules does not define "jostling" in the Glossary or elsewhere.

## **JOSTLING**

- 1. The GHSFL Definition of Jostling is as follows: any contact with the opponent that causes s/he to be moved.
- 2. The only change to USA Fencing rules will be to change the order of the two descriptive, independent clauses in t.63 2
- t.63 2 A fencer (who intentionally causes corps à corps to avoid being touched) or (who jostles his opponent) is penalized according to Articles t.114, t.116, t.120.

In order to reduce confusion, and ensure the proper interpretation of the rule which increases safety for the fencers, the **GHSFL rule is as follows**:

A fencer who jostles his opponent or intentionally causes corps à corps to avoid being touched is penalized according to Articles t.114, t.116, t.120.

Article t.120, of the USA Fencing Rules, is the Schedule of Offenses and Penalties. This Schedule specifically classifies jostling as a Group 1 Offense and as a footnote, includes the annulment of any touch scored by the fencer at fault.

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### DISPLACING THE TARGET AND PASSING THE OPPONENT

Displacing the target and ducking are allowed even if during the action the unarmed hand and/or the knee of the back leg comes into contact with the strip.

It is forbidden to turn one's back on one's opponent during the bout. Should such an

offense occur, the Referee will penalize the fencer at fault and any touch scored by the fencer at fault is annulled.

When a fencer goes completely past his opponent during a bout, the Referee must immediately call "Halt" and replace the competitors in the positions which they occupied before the passing took place.

When touches are made as a fencer passes his opponent, the touch made immediately is valid; a touch made after passing his opponent by the competitor who has made the passing movement is annulled, but the touch made immediately, even when turning around, by the competitor who has been subjected to the offensive action, is valid. If during a bout a fencer who has made a flèche attack has a touch registered against him and he continues to run beyond the extreme limit of the strip sufficiently far to cause his reel or the connecting line to his reel to be torn out, the touch which he has received will not be annulled

### USE OF THE NON-WEAPON HAND OR ARM

The use of the non-sword hand and arm to carry out an offensive or defensive action is forbidden. Should such an offense occur, the touch scored by the fencer at fault is annulled and the latter will be penalized as specified for offenses of the 2nd group (red card).

During the bout, the fencer must not, under any circumstances, take hold of any part of the electrical equipment with the non-sword hand; any touch scored by the fencer at fault is annulled.

If during a bout the Referee notices that one of the fencers is making use of the non-sword arm and/or hand, the Referee can call for the help of two neutral judges who will be designated by the Head Referee. These judges, one on each side of the strip, will watch all aspects of the bout and will indicate, by raising their hand or when asked by the Referee, if the non-sword arm or hand has been used.

The Referee may also make the fencers change places so that the fencer committing this fault does not have his back to the Referee.

### **GROUND GAINED**

When the order "Halt" is given, ground gained is held until a touch has been given. When competitors are replaced on guard, each fencer should retreat an equal distance in order to keep fencing distance

However, if the bout has been stopped on account of corps à corps, the fencers are replaced on guard in such a position that the competitor who has sustained the corps à corps is at the place which he previously occupied; this also applies if his opponent has subjected him to a flèche attack, even without corps à corps.

## CROSSING THE LIMITS OF THE STRIP

# Stopping the bout

When a competitor crosses one of the lateral boundaries of the strip with one or both feet completely off the strip, the Referee must immediately call "Halt."

If the fencer goes off the strip with both feet, the Referee must annul everything that has occurred after the boundary has been crossed, except a touch received by the competitor who has crossed the boundary even after he has crossed it, provided that this touch results from a simple and immediate action. However, a touch scored by the fencer who leaves the strip with one foot only is valid

provided that the action was started before the "Halt."

If one of the competitors leaves the strip with both feet, only a touch made by the fencer who remains on the strip with at least one foot can be counted valid, even in the case of a double touch.

Should a competitor cross the rear limit of the strip completely—i.e., with both feet—a touch will be scored against him.

If a competitor crosses one of the lateral boundaries of the strip with one or two feet, he must retreat one meter from the point where he left the strip, and if he goes off the strip during an attack, he must return to the position he occupied when he started his attack and then retreat a further meter.

If the exercise of this penalty places a competitor with both feet beyond the rear limit of the strip, that competitor is considered as having been touched.

A competitor who crosses one of the lateral boundaries of the strip with one or both feet—e.g., when making a flèche—to avoid being touched will be penalized

Prior to or during a bout, the Referee can call for the help of two neutral judges who will be designated by the Bout Committee. These judges, one on each end of the strip, will watch for use of the unarmed hand or arm, touches scored on the floor, leaving the strip to the side or the rear. The judges will indicate, only when asked by the Referee, if an infraction has occurred

# Leaving the strip accidentally

A competitor who involuntarily crosses one of the boundaries of the strip as the result of any accidental cause incurs no penalty whatever.

Duration of the bout is the time between the orders "Fence" and "Halt." The duration of the bout is controlled by the Referee or by a timekeeper.

The effective duration of a bout is:

For pools, 5 touches, maximum 3 minutes.

For direct elimination bouts, 15 touches, maximum 9 minutes divided into 3 periods of 3 minutes, with one minute's pause between any two periods.

For team matches, 3 minutes for each bout.

The fencers may ask how much time they have left to fence each time that the fencing is interrupted.

Any fencer who attempts improperly to cause or to prolong interruptions to the bout will be penalized

At the expiration of the regulation fencing time, the timekeeper must shout "Halt" (or

operate a sound signal) which stops the bout

Should there be a failure of the clock or an error by the timekeeper, the Referee must estimate how much fencing time is left.

## INJURIES, CRAMPS, MEDICAL WITHDRAWAL

For an injury or cramp which occurs in the course of a bout and which is properly documented, the Referee will allow a break in the bout lasting no longer than 10 minutes. This break should be timed from the point when the referee gave his opinion and be strictly reserved for the treatment of the injury or cramp which brought it about. If the referee considers, before or at the end of the 10-minute break, that the fencer is incapable of continuing the bout, the fencer must withdraw (individual events) and/or be replaced, if possible (team events)

During the remainder of the same day, a fencer cannot be allowed a further break

Should a fencer demand a break which is deemed by the referee to be unjustified, the referee will penalize that fencer

In team events a fencer judged unable to continue the bout by the doctor may, nevertheless, on the advice of the same doctor, fence in subsequent matches on the same day.

The Referee, with the permission of the Bout Committee, may modify the order of bouts in a pool in order to ensure the efficient running of the competition

## MULTIPLE MEDICAL WITHDRAWAL

A fencer who takes a medical withdrawal for the same reason in two GHSFL tournaments in the same season must provide a letter from his/her physician specifically stating: "The fencer is cleared to participate in long periods of high intensity aerobic activity and possible high impact at GHSFL fencing tournaments. GHSFL fencing tournaments may last as long as 8 hours"

The physician's letter must be sent to the fencer's faculty-sponsor prior to rosters being turned in. If the physician's letter is not received by the fencer's faculty-sponsor, the fencer will not be allowed to fence in a GHSFL tournament

## REFEREEING

By accepting a position as Referee or judge, the person agrees to respect the Rules and to cause them to be respected, and to carry out his duties with the strictest impartiality and absolute concentration.

Referees may not combine their function with any other activity during the tournament, such as member of the Bout Committee, team captain, coach, etc.

## THE REFEREE

All bouts in GHSFL tournaments are directed by a Referee who must be hold current certification by the GHSFL or by USA Fencing.

The Referee

calls the roll of the competitors

directs the bout

must check the weapons, clothes and equipment of the fencers, according to the regulations described below before each bout.

superintends the proper functioning of the electrical apparatus. Either on his own initiative or when asked to do so by a team captain or competitor, he implements tests necessary to verify the apparatus and locate any faults which may be found. He will prevent the competitors from hindering the tests by unplugging or changing their equipment prematurely.

directs the floor judges, timekeepers, scorers, etc.

positions himself and moves in such a way as to be able to follow the bout while always being able to see the lights on the scoring box.

penalizes faults

awards the touches

maintains order

should consult the experts concerning the electrical apparatus whenever he considers it necessary

At the end of each round, the Bout Committee can remove one or more Referees whose performance was not satisfactory. This decision must be taken by the majority vote of the Bout Committee. However, a Referee may not be changed during a bout except in exceptional circumstances. In such a case the decision, which must be well founded, must be made by the majority of the Bout Committee

Under no circumstances can the Referee declare a competitor to be touched unless the touch has been properly registered by the scoring box, (except in cases when a penalty touch has been awarded). The Referee may annul a touch registered by the apparatus and by applying the rules decide which fencer was touched, whether both were touched or if there was no valid touch

### **JUDGES**

The Referee may be assisted by two neutral judges, when available, who will watch for the use of the unarmed hand or arm, touches scored on the floor, leaving the strip to the side or the rear. The judges will indicate, only when asked by the referee, if an infraction has occurred

As long as neutral judges are available, judges must be assigned to all individual bouts in the final 4 and team matches in the final 2.

The judges are placed on each side of the Referee, on either side of the strip.

The judges must change ends halfway through each bout or after each period in direct elimination bouts and after each bout in team matches, so as not to watch the same fencer the whole time.

# REGULATION EQUIPMENT AND CHECKING OF EQUIPMENT BY THE REFEREE

Before the start of each pool, team match or bout by direct elimination, the Referee must assemble all the competitors and verify the following:

The competitor is wearing a jacket conforming to the USA Fencing regulations

The competitor is wearing, under his jacket, a regulation protective under-plastron, made of at least 2 layers of cloth which can resist 800 Newtons including a sleeve down to the elbow without opening or seam in the region of the armpit

The competitor, if female, is also wearing a solid chest protector

The competitor is wearing an epee mask. A foil mask or saber mask may not be worn in epee competition

The competitor is not equipped with any electronic communication equipment which would allow a person off the strip to communicate with the fencer during the bout.

The competitor has received inspection marks on both the mask and the glove

In pools, this checking must be done at the roll call of the fencers. For bouts in the direct elimination and the finals this checking will be done on the strip or in an assembly area.

The host schools for GHSFL competitions must make provision in their set-up for an assembly area.

In addition to the checks mentioned above, the Referee of a bout may at any time, on his own initiative or at the request of a fencer or of a team captain, carry out such checks, or

verify the checks already carried out or even carry out, or have carried out, new checks.

He will, in any case, before each bout, ensure that the clothing, the blade and the mask of each fencer, and that the insulation of the wires inside the guard and the pressure of the spring in the point of the épées conform with the

Rules.

Checking the insulation of the wires and the pressure of the spring will be repeated each time a weapon is changed

The referee will check the total travel and the residual travel of the pointe d'arrêt:

He will check the total travel by inserting a gauge measuring 1.5 mm between the barrel of the pointe d'arrêt and the tip. This gauge may have a tolerance of  $\pm$  0.05 mm, i.e., from 1.45 mm to 1.55 mm. He will check the residual travel by inserting a gauge measuring 0.5 mm between the barrel of the pointe d'arrêt and the tip. The apparatus should not register when the point is depressed. This gauge may have a tolerance of  $\pm$  0.05 mm, i.e., from 0.45 mm to 0.55 mm. He will use a 750 gm weight during the check

At the beginning of the bout, the Referee will place the reserve equipment that has been checked near the appropriate end of the strip for the fencer concerned.

# **NON-REGULATION EQUIPMENT**

If a fencer on the strip is found to be in possession of equipment which is non-regulation or defective, this equipment will be immediately confiscated.

The equipment must be rechecked before it is used again.

If a fencer appears on the strip:

— with a weapon or a bodycord which does not work or which does not conform with

the Rules; or

- without his protective plastron; or
- with clothing which does not conform with the Rules;

the Referee will apply the penalties (1st group).

2.

When during a bout an irregularity is found in the equipment which could be caused by conditions during the bout, for example

- weapon or bodycord no longer functioning;
- pressure of the spring in the point too weak;
- the travel in the point no longer regulation;

the Referee will apply neither warning nor penalty and any touch scored with the equipment that has become defective will be awarded.

However, even during the course of a bout, any fencer whose weapon, at the moment he presents himself on guard and ready to fence, has a curve of the blade which exceeds that permitted commits an offense in the 1st group and may be penalized. The fencer will not be allowed to fence with the blade until the blade has been straightened to the referee's satisfaction

- 3. a) If, when a fencer appears on the strip or during a bout, it is established that the equipment used by the fencer:
- i) does not bear the marks applied at the preliminary check, the Referee will:
  - annul the last touch, if any, scored by the fencer at fault; penalize him as specified
  - does not conform to the Rules in a way not covered by the preliminary check, the Referee will: penalize him as specified
- iii) has been passed by the preliminary check but is fraudulent; or
- iv) bears the marks of the preliminary check which have been imitated or transferred; or
- v) has been willfully altered (i.e. in a manner other than by accidental cause or by conditions during the bout) so that it would not pass a preliminary check;
- vi) has been altered in any way to allow the recording of touches or the nonfunctioning of the apparatus at will; or
- vii) is equipped with electronic communication equipment permitting a person off the strip to communicate with the fencer during the bout; then, in cases iii), iv), v), vi) and vii) above, the Referee must immediately confiscate the equipment (weapon, bodycord and if necessary the conductive jacket, mask, protective plastron, jacket, knickers, etc.), and have it examined by the expert on duty.
- b)

After having obtained the opinion of the expert member who has established the facts, the Referee will apply the following penalties:

- in cases iii), iv), v), vi) and vii), the Referee will penalize him as specified for offenses of the 4th group
- c) While awaiting the decision of the Referee that bout will be suspended but the other bouts in the pool may continue.

## METHOD OF MAKING A TOUCH

The épée is a thrusting weapon only. Attacks with this weapon are therefore made with the point, and with the point only.

Pushing or letting the point of the electric weapon drag on the electric strip is forbidden during the actual bout (between "Fence" and "Halt"). Placing the point of the weapon on the strip at any time to straighten it is also forbidden.

Any breaking of this rule will be penalized

### THE TARGET

In épée the target includes the whole of the fencer's body including his clothing and equipment. Thus any point which arrives counts as a touch whatever part of the body (trunk, limbs or head), the clothing or the equipment it touches

### JUDGING OF TOUCHES IN EPEE

Epée competitions are judged with an electrical scoring apparatus.

When both competitors are touched, and the apparatus registers both these touches as valid, there is a double touch, that is to say a touch is scored for each competitor. Only the indications of the electrical scoring apparatus can be taken into consideration for judging the materiality of touches. The Referee cannot declare a competitor to be touched unless the touch has been properly registered by the apparatus (except when a penalty touch has been awarded).

### ANNULMENT OF TOUCHES

In arriving at his judgment, the Referee will disregard touches which are registered as a result of actions:

started before the word "Fence" or after the word "Halt"

caused by the meeting of the points of the épées or by a touch made on the ground where it is not insulated

made on any object other than the opponent, including his equipment

Any competitor who, intentionally, causes the apparatus to register a touch by placing his point on any surface other than that of his opponent, will be penalized

The Referee must take note of possible failures of the electrical equipment and must annul the last touch registered in the following circumstances:

If a touch made on the guard of the competitor against whom the touch was registered or on the conductive strip causes the apparatus to register a touch

If a touch properly made by the competitor against whom the touch was registered does not cause the apparatus to register a touch

If the apparatus fortuitously registers a touch on the side of the competitor against whom the touch was registered, for example, after a beat on the blade, by any movements of his opponent, or as a result of any cause other than a properly made touch If the registering of a touch made by the competitor against whom the touch was registered is annulled by a subsequent touch made by his opponent.

## Special cases:

If a double touch is registered and one touch is valid and the other is not valid (such as a touch made on some surface other than on the opponent (cf. t.66.1) or a touch made after leaving the strip (cf. t.26ss), only the valid touch is scored. If a double touch is registered by an established touch and a doubtful touch (failure of the electrical apparatus) the fencer who has made the established touch may choose to accept the double touch or ask to have it annulled

The Referee must also apply the following rules regarding the annulment of touches:

Only the last touch which precedes the establishment of the failure of the apparatus may be annulled and then only if it is the competitor against whom the touch was registered who is placed at a disadvantage by the failure.

The failure must be determined by tests made immediately after the bout was stopped, under the supervision of the Referee and without changing anything whatever of the equipment in use.

With these tests, one is trying only to establish whether there is material possibility of a mistake in the judgment as a result of a fault. The location of this fault in the electrical equipment, including that of either of the fencers, is unimportant in reaching a decision.

A competitor who makes any modification in, or changes his equipment without being asked by the Referee to do so, before a judgment is pronounced, loses his right to the annulment of the touch. Similarly, after again coming on guard and after the bout has effectively recommenced a competitor cannot claim the annulment of a touch registered against him before the said recommencement of the bout.

It is not necessary, in order to justify the annulment of a touch, that the failure found should repeat itself each time a test is made, but it is essential that the fault should be established by the Referee without the possibility of doubt at least once.

If the incidents occur as a result of the competitor's bodycord being unplugged (either near the hand or at the back of the fencer), they cannot justify the annulment of the touch registered. However, if the safety device is missing or not functioning, the touch should be annulled if the plug at the fencers' back has become unplugged.

The fact that the épée of a competitor has large or small areas of insulation formed by oxidation, by glue, paint or any other material on the guard, on the blade or elsewhere, on which his opponent's touches can cause a touch to be signaled, or that the electric tip is badly fixed to the end of the blade so that it can be unscrewed or

tightened by hand, cannot justify the annulment of touches registered against that competitor.

When a competitor against whom a touch has been registered has broken his blade, the touch must be annulled unless the breaking of the blade has occurred clearly after the touch has been registered.

If a competitor tears the conductive strip by a touch made on the ground and, at the same time, the apparatus registers a touch against his opponent, the touch must be annulled.

Whenever, owing to some accidental cause, tests cannot be made, the touch must be considered as doubtful and must be annulled

The Referee must pay particular attention to touches which are not registered or which are registered abnormally. Should such defects be repeated, the Referee must ask the members of the Bout Committee or an expert technician on duty to verify that the equipment conforms to the Rules.

The Referee must ensure that nothing is altered either in the competitor's equipment or in the whole of the electrical apparatus before the expert makes the check.

The Referee must supervise the condition of the conductive strip; he must not allow the bout to commence or to continue if the conductive strip has holes in it which might affect the proper registering of touches or cause accidents. (The organizers must make the necessary arrangements to ensure the rapid repair or replacement of the conductive strips.)

## PERSONS SUBJECT TO THESE RULES

The regulations apply to all persons who take part in or attend a fencing competition, including the spectators.

Hereinafter, all these persons are described as "ALL"

# Maintenance of order and discipline

ALL must observe strictly the Rules for the competition in which they are engaged, as well as, the traditional customs of courtesy and integrity and the instructions of the officials.

ALL will follow, in an orderly, disciplined and sporting manner, these provisions; all breaches of these rules may entail punishments after, or even without, prior warning, according to the facts and circumstances

ALL taking part in or present at a fencing competition must remain orderly and must not disturb the smooth running of the competition. During bouts no one is allowed to go near the strips. At no time is anyone allowed to criticize the Officials or their decisions, to insult them or to attempt to influence them in any way.

The Referee must stop immediately any activity which disturbs the smooth running of the bout which he is refereeing

Any person who, for any reason, threatens or insults an official commits an offense of the 4th group and will be penalized

Coaches, fencers and spectators must not disturb the order of the bout. Only the two fencers directly involved in a bout may speak to the referee

Smoking in competition halls is forbidden. Smoking will be considered as a disturbance of the smooth running of the competition

The Referee and/or the Bout Committee, on their own authority or at the request of an official, can decide to expel from the competition venue, with or without a warning, any person who by his gestures, attitude or language disturbs the good order or smooth running of the event.

#### THE COMPETITORS

By entering a fencing competition, the fencers agree to observe the Rules and the decisions of the officials, to be respectful towards the referees and judges and to scrupulously obey the instructions of the Referee

No fencer (individual or team) may take part in an official competition if he refuses to fence against any other fencer whatsoever (individual or team) correctly entered in the event. Should this rule be broken, the penalties specified for offenses of the 4th group will be applied

The fencers, completely equipped, with all equipment conforming with the regulations and ready to fence, must be present at the assigned strip at the beginning of the pool or bout of direct elimination, or at the time appointed for the checking of their equipment before their bout, as well as during the competition, whenever the Referee requires it.

When presenting themselves to fence a bout, the fencers must arrive on the strip completely ready to fence—regulation clothing, jacket fastened, sword-hand gloved and holding the weapon, bodycord connected to the plug inside the guard. The mask should be carried in the unarmed hand.

Before the start of the bout, the fencers' hair must be fastened and placed inside the clothing and/or mask in such a way as to ensure that:

- It does not conceal the name
- It does not need to be put back in place during the bout, thus interrupting it.

Under no circumstances should the fencers dress or undress in public except in the case of an accident duly recognized by the Referee

In GHSFL competitions, the fencers must arrive on the strip, to fence their bouts, with one weapon and

one body cord which satisfy the regulations and are in perfect working order. Additionally the fencer must have one or more spare working weapons and body cords on the strip OR a) inform the referee of the location of a shared weapon and shared body cord. Any shared equipment be easily accessible in a timely fashion and must be located within the tournament venue

Before the start of the pool, the team match or the bouts of direct elimination (individual or team) or in the course of the competition (individual or team), when a fencer does not present himself on the strip, ready to fence, when ordered to do so by the Referee:

- the fencer or team member not present will be penalized with a Yellow Card;
- a second call will be made, one minute after the first call, followed by a Red Card for the fencer or team member not present;
- a third and last call will be made, one minute after the second call, followed by the elimination from the competition for the fencer not present in an individual competition or for the whole team in a team competition.

If a fencer abandons a bout by leaving the strip, he will be penalized

## FENCERS BEHAVIOR

All bouts must preserve the character of a courteous and frank encounter. All irregular actions (flèche attack which finishes with a collision jostling the opponent, disorderly fencing, irregular movements on the strip, touches achieved with violence, blows struck with the guard, touches made during or after a fall) or anti-sporting behavior are strictly forbidden. Should such an offense occur, any touch scored by the fencer at fault is annulled.

Before the beginning of each bout, the two fencers must perform a fencer's salute to their opponent, to the Referee and to the spectators. Equally, when the final touch has been scored, the bout has not ended until the two fencers have saluted each other, the Referee and the spectators: to this end, they must remain still while the Referee is making his decision; when he has given his decision, they must return to their on guard line, perform a fencer's salute and shake hands with their opponent. If either or both of the two fencers refuse to comply with these rules, the Referee will penalize him/them as specific for offenses of the 4th group

During or after a bout, even if the fencer has already left the strip, any act against the spirit of sportsmanship such as violently or dangerously throwing one's mask (or any other piece of equipment) will be penalized

## **Non-combativity (Unwillingness to fence)**

When both fencers make clear their unwillingness to fence, the Referee will immediately call "Halt!" If one of the two criteria below is present, there is unwillingness to fight.

Criterion of time: approximately one minute of fencing without a touch. Excessive distance (greater than the distance of an advance-lunge) for at least 15 seconds.

## **Individual events**

Non-combativity will not be called during pool bouts.

If during the first two periods of a direct elimination bout both fencers make clear their unwillingness to fence, the Referee will proceed to the next period, without the minute rest.

When both fencers make clear their unwillingness to fence during the third period of a direct elimination bout, the Referee will proceed to a last minute of fencing. This last minute, which will be fenced in its entirety, will be decisive and will be preceded by a drawing of lots to decide the winner should the scores be equal at the end of the minute.

### **Team events**

If both teams make clear their unwillingness to fence during a team match, the Referee will proceed to the next bout.

If both teams make clear their unwillingness to fence during the last bout, the Referee will proceed to a last minute of fencing. This last minute, which will be fenced in its entirety, will be decisive and will be preceded by a drawing of lots to decide the winner should the scores be equal at the end of the minute.

The fencer, whether on or off the strip, must keep his mask on until the Referee calls halt. He may under no circumstances address the Referee until the Referee has made his decision

Under no circumstances may fencers remove their clothes on the strip, even to change their bodycord

Immediately after the end of a bout the Referee must bring together the two fencers, to announce clearly the score. He must say clearly: "Mister X won against Mister Y with the following score...."

After the final bout of a pool and after a direct elimination bout, fencers must then sign the pool or bout score sheet, under the responsibility of the Referee who must check the accuracy of the results on this score sheet. Before the score sheet is returned to the Bout Committee, the Referee must indicate in writing if a fencer refuses to sign it. No subsequent appeal relating to the results will be allowed.

Competitors must fence to their utmost ability in a sportsmanlike manner until the end of the competition, without giving away touches or seeking to be favored by being given touches by anyone

# THE FACULTY-SPONSOR

In GHSFL competitions, all competitors from the same school must be under the direction of their faculty-sponsor, who is responsible to for the discipline, conduct, and sportsmanship of the members of his/her team.

# INSTRUCTORS, COACHES ANDS TECHNICIANS

No one may address the referee except the two fencers involved in the bout that the referee is directing. The fencers involved in the bout may ask the referee questions following the command "halt" and prior to the command "fence." Coaches, parents, faculty-sponsors, teammates and spectators may not address the referee. First infraction: Yellow; Second infraction: Black

Exception to this rule would be made if an individual observes a safety issue of which the referee is unaware. Examples of such safety issues are a fencer's jacket not completely zipped, untied shoe, fire, power outage, etc

### THE SPECTATORS

Spectators may not to interfere with the good order of a competition, and must do nothing which may tend to influence the fencers or the Referee, and must respect the decisions of the latter even when they do not agree with them. They must obey any instructions which the Referee may deem it necessary to give them. They must remain in the area designated for spectators and may not enter the competition floor

## **JURISDICTION**

The disciplinary authorities are the following:

- the Referee
- the Bout Committee
- the GHSFL Board

Whatever juridical authority has taken a decision, this decision may be subject to an appeal to a higher juridical authority, but only to one such appeal.

No decision on a question of fact can be the subject of an appeal

An appeal against a decision only suspends that decision when it can be judged immediately.

### The Referee

The Referee is responsible not only for the direction of the bout, the judging of touches and the checking of equipment, but also for the maintenance of order in the bouts which he is refereeing

In his capacity as director of the bout and arbiter of touches, he can, in accordance with the Rules, penalize the competitors, either by refusing to award a touch which they have in fact made on the opponent, or by awarding against them a touch which they have not in fact received, or by excluding them from the competition in which he is refereeing, according to the circumstances, with or without prior warning. In these circumstances, and if he has judged on a matter of fact, his decisions are irrevocable

By reason of the right of jurisdiction which he has over all the fencers who participate in, or are present at a competition which he is refereeing, he can also propose to the Bout Committee the expulsion from the venue of the competition of the spectators, coaches, instructors and other persons who accompany the competitors

He may recommend to the Bout Committee all other penalties which he considers appropriate (exclusion from the whole competition, suspension or disqualification)

The Head Referee is the authority competent to deal with appeals against the decisions of the Referee

### **The Bout Committee**

The Bout Committee has jurisdiction over all the fencers who take part in or are present at a competition which they are running.

When necessary they can intervene on their own initiative in all disputes.

They are also responsible for maintaining order and discipline during competitions and may use the sanctions specified in the Rules.

The Bout Committee is responsible for sending to the GHSFL Board announcements of disciplinary penalties pronounced during the competitions, as well as any requests for penalty or suspension, and medical withdrawals.

The Bout Committee activates any penalty imposed against which no appeal is possible or which is not subject to suspension

The disciplinary decisions of the Bout Committee that they take spontaneously or in their own right (as the first level of authority) are subject to appeal to the GHSFL Board

All the decisions of the Bout Committee are immediately enforceable. No appeal against a decision can suspend that decision during a competition.

# **CLASSIFICATION OF PENALTIES**

There are distinct categories of penalty applicable to the two sorts of offense.

- 1. Penalties related to fencing, applicable to offenses committed while fencing. These are:
- the loss of ground on the strip;
- refusal to award a touch actually made;
- awarding a touch which has not in fact been received;
  - exclusion from the competition.
- 2. Disciplinary penalties applicable to offenses concerned with maintenance of order, discipline or sportsmanship. These are:
- awarding a touch which has not in fact been received;
- exclusion from the competition;
- exclusion from participation in the whole tournament;
- expulsion from the venue of the competition;
- disqualification;
- censure;
- fine:
- temporary suspension;
- permanent suspension.
- 1. All these penalties except permanent suspension can be applied by the competent authorities at a competition—the Referee and the Bout Committee.
- 2. Temporary suspension can be applied by these authorities only in the case of a fencer refusing to salute

## PENALTIES RELATED TO FENCING

If a competitor crosses one of the lateral boundaries of the strip with one or two feet, he must retreat one meter from the point where he left the strip, and if he goes off the strip during an attack, he must return to the position he occupied when he started his attack and then retreat a further meter.

## Refusal to award a touch actually made

Although a competitor may in fact have touched his opponent on the target, this touch may be disallowed, either because it did not arrive during the period of time during which fencing is allowed, or because the competitor had crossed the boundaries of the strip, or because of defects in the electrical equipment, or because violence was involved in the making of the touch, or because of other reasons as stated in the Rules

### Award of a touch which has not in fact been received

A competitor may have a touch awarded against him which he has not in fact received, either because he has crossed the rear limit of the strip, or because he has committed an offense which has prevented his opponent fencing (a flèche attack which jostles the opponent, the use of the unarmed hand while fencing, etc.)

## Exclusion

A competitor who, while fencing, commits certain violent or vindictive actions against his opponent, or who does not fence to his utmost ability, or who profits from a fraudulent agreement with his opponent, may be excluded from the competition. A competitor who is excluded from a competition may not continue to take part in that competition, even if he is already qualified for promotion to the next round. He loses the right to his individual classification and the place that he occupied remains unfilled; but the points obtained by the fencer up to the moment of his expulsion remain valid for the classification of the team in the team event, providing that he actually takes part in that team event.

# Disciplinary penalties

# Exclusion from the competition

- 1. Exclusion from a competition may also be imposed for a disciplinary offense (failure to appear on the strip as required, weapons not in accordance with the Rules, reprehensible attitude towards an official, etc.).
- 2. The consequences of such exclusion for the competitor are the same as those described above.

# Exclusion from participation in the whole tournament

- 1. Tournament is the name given to a number of competitions, individual and team, held at the same place, at the same period and under the same aegis.
- 2. A competitor who is excluded from a tournament will no longer be allowed to participate in any competition during that tournament, either in the same weapon or another.
- 3. When this penalty is imposed on a team, the position of each member of that team must be examined individually, and the members of that team may, according to the circumstances, have different penalties imposed on them

# Expulsion from the venue of the competition or the tournament

All participants or non-competitors who participate in or are present at a competition (instructors, coaches, technicians, supporters, officials, spectators) may be expelled. Such expulsion has the effect of forbidding them access to the venue for the duration of the competition or tournament. In no circumstances can the imposition of this penalty give cause for redress to anyone.

# Disqualification

Disqualification of a competitor (for example, because he does not conform to the rules regarding age, qualification, etc. required for the competition) does not necessarily incur his suspension or permanent suspension, if he has acted in good faith; a request for supplementary penalties for fraudulent intention may, however, be made against the competitor.

2. A team which has included a competitor who is disqualified necessarily incurs the penalty of that member and is also disqualified.

3. The consequences of disqualification are the same as those for exclusion from the competition.

## Censure

In cases where a more severe disciplinary sanction is not justified, the fencer or the official may be sanctioned by censure.

# Temporary suspension

1. A competitor who is suspended cannot take part in any official competition during the time he is suspended.

2.

All other persons who are suspended are debarred from exercising their functions within the limits of time and place fixed when the suspension is imposed.

## Permanent suspension

Permanent suspension involves the same consequences as suspension, but is permanent.

### ANNOUNCEMENT OF PENALTIES

The Bout Committee is required to inform the GHSFL Board, without delay, of penalties applied during the competition and their reason

### **OFFENSES AND PENALTIES**

The types (groups) of penalty

- 1. There are three types of penalty to be applied. If a Referee must penalize a fencer who has committed several faults at the same time, he should penalize the less serious fault first.
- 2. Penalties are cumulative and they are valid for the bout with the exception of exclusion, which is indicated by a Black Card.

Certain offenses can result in the annulment of the touch scored by the fencer at fault. During the bout, only touches scored in circumstances connected with the offenses may be annulled

- 3. The penalties are as follows:
- a) a warning, indicated by a Yellow Card with which the Referee identifies the fencer at fault. The fencer then knows that any further offense on his part will result in a penalty touch.
- b) a penalty touch, indicated by a Red Card with which the Referee identifies the fencer at fault. A touch is added to the score of his opponent and may, if the last touch is at

stake, lead to the loss of the bout. Furthermore, a Red Card can only be followed by another Red Card or by a Black Card, depending on the nature of the second offense

- c) exclusion, from the competition or the whole tournament as applicable (for a fencer), indicated by a Black Card by which the Referee identifies the person at fault.
- d) expulsion, from the competition venue (any person disturbing order of the competition).
- 4. All warnings (Yellow Cards), penalty touches (Red Cards) and exclusions (Black Cards) must be noted on the score sheet of the bout, the pool or the match, together with the group to which they belong.

# Competence

The offenses and their penalties which appear in different articles of the Rules are summarized in the penalties table; they are divided into four groups. All these penalties are within the competence of the Referee, although the Bout Committee still retains the right to intervene on its own initiative.

# The First Group of offenses

The first infringement, in this First Group, is penalized by a Yellow Card (warning). If during the same bout the fencer commits the same or a different offense in this group, the Referee penalizes him, on each occasion, with a Red Card (penalty touch). If the fencer at fault has already been penalized by a Red Card because of an offense listed in the Second or Third Group, he receives a further Red Card for his first infringement relating to the First Group.

# The Second Group of offenses

Every offense in the Second Group, including the first infringement, is penalized by a Red Card (penalty touch).

# The Third Group of offenses

The first infringement in the Third Group is penalized by a Red Card (penalty touch), even if the fencer at fault has already received a Red Card as a result of offenses in the 1st or 2nd groups.

- 2. If during the same bout the fencer commits the same or a different offense in this group, he is penalized with a Black Card (exclusion from the competition).
- 3. Any person not on the strip who disturbs the order of the competition receives:
- a) On the first infringement, a warning, indicated by a Yellow Card, valid for the whole
- of the competition, which must be noted on the bout scoresheet and recorded by the Bout Committee;
- b) At the second infringement during the same competition a Black Card.
- 4. In the most serious cases concerning disturbance either on or off the strip, the Referee may

exclude or expel the person at fault immediately.

The Fourth Group of offenses

The first infringement in the fourth group is penalized by a Black Card (exclusion from the competition or the whole tournament, as applicable).

# Offenses and penalties

This table is intended to be a convenient summary: it is not a substitute for the full texts of the articles concerned, which should be consulted in any case of doubt.

## **Offense Article Penalties**

Fencer or team member not present upon 1st and then second call. If still not present at 3rd call Elimination from the competition. 1st call -Yellow

2nd call -Red 3rd call -Black

# 1st Group Article

1st Offense Yellow

2nd Offense Red

3rd Offense Red

Leaving the strip without permission

Corps a corps to avoid a touch

Turning the back to the opponent

Covering/substitution of valid target

Touching/taking hold of electrical equipment

Crossing the side of the strip to avoid being

touched

Delaying the bout

Clothing/equipment not working or not conforming; absence of second regulation

weapon or bodycord

Placing the weapon on the strip to straighten it

Bending/dragging weapon point on the strip

Refusal to obey the Referee

Hair not conforming

Jostling, disorderly fencing

Taking off mask before the Referee calls "Halt"

Undressing on the strip

Abnormal fencing action; touches with brutality or made during or after a fall

Unjustified appeal

Entering the Strip Area without the

Referee's permission

# 2nd Group Article

1st Offense Red

2nd Offense Red

3rd Offense Red
Using the non-weapon arm or hand
Interruption of bout for claimed injury/cramp
not confirmed by doctor
Absence of equipment control mark
Deliberate touch not on opponent

# **3rd Group Article**

1st Offense Warning

2nd Offense Black

Dangerous, violent or vindictive action, blow with guard or pommel

Fencer disturbing order on the strip

Dishonest fencing

Offense against publicity code

Any person not on strip disturbing order

Warming up or training without wearing conforming fencing clothing and equipment

Anti-sporting behavior

# 4th Group Article

1st Offense Black

Fencer equipped with electronic communication equipment permitting him to receive communications during the bout

Falsified weapon inspection marks, intentional modification of equipment

Manifest cheating with equipment

Refusal of a fencer to fence another competitor (individual or team) properly entered

Offense against sportsmanship

Refusal of fencer to salute opponent, the referee and the audience at the beginning or at the end of the bout

Profiting from collusion, favoring an opponent

Deliberate brutality

Doping

Yellow Card Warning (valid for bout, whether one or several encounters). If a fencer commits an offense in the First Group after having been penalized with a Red Card, for whatever reason, he or she receives a further Red Card.

Black Card Exclusion from competition. A fencer only receives a Black Card in the Third Group if he or she previously committed an offense in this Third Group (demonstrated by a Red Card).

- 1) Exclusion from competition
- 2) Exclusion from tournament
- 3) Expulsion from venue
- 4) 4) In serious cases, the referee may exclude/expel immediately

The various penalties are imposed by the competent authorities who will reach their decisions in an equitable manner, and will take into account the gravity of the offense and the circumstances in which it was committed

# Protests and appeals

Against a decision of the Referee

- 1. No appeal can be made against the decision of the Referee regarding a point of fact
- 2. If a fencer infringes this principle, casting doubt on the decision of the Referee on a point of fact during the bout, he will be penalized according to the Rules But if the Referee is ignorant of or misunderstands a definite rule, or applies it in a manner contrary to the Rules, an appeal on this matter may be entertained.
- 3. This appeal must be made:
- a) in individual events, by the fencer;
- b) in team events, by the fencer or the team captain.

This appeal should be made courteously but without formality, and should be made verbally to the Referee immediately and before any decision is made regarding a subsequent touch.

4. If the Referee maintains his opinion, the Head Referee has authority to settle an appeal (cf. t.97). If such an appeal is deemed to be unjustified, the fencer will be penalized

Other protests and appeals

- 1. Complaints and protests which are not concerned with a referee's decision must be made in writing without delay; they must be addressed to the Bout Committee.
- 2. If a complaint or protest contests a decision taken by the Bout Committee, it should be addressed to the Board

Investigation—Right of defense

No penalty can be imposed until after an inquiry has been held in the course of which the parties concerned have been called on to give their explanation of the occurrence either verbally or in writing, within a reasonable interval of time, suited to the time and place. After this time limit has expired, the penalty may be imposed.

The decisions of the juridical authorities of competitions are by majority vote, the chairman (president) having the casting vote in case of a tie.

Repetition of offense

1. For offenses regarding sportsmanship, good order or discipline, a fencer is said to repeat an offense if he commits a new offense, other than violation of the rules governing bouts, within two years of being censured, or subjected to exclusion, disqualification or suspension.

- 2. For the repetition of an offense, the penalty which must be imposed is:
- a) Exclusion from the competition, if the previous penalty was a censure.
- b) Disqualification from participation in the whole tournament, if the previous penalty was exclusion or disqualification from a competition.

## ANTI-DOPING CONTROLS

Doping is forbidden by the GHSFL. Any breaking of this rule will incur disciplinary action.

Doping is defined as the occurrence of one or more of the anti-doping rules set by the GHSA

The athletes who participate in GHSFL competitions must respect the Rules, regarding prohibited substances

### **COMPETITIONS**

The official competitions of the GHSFL are organized according to the following rules.

Every fencer must be a full-time student in good standing at the GHSFL member high school which he/she attends

The host school is the group of persons responsible for organizing the competition.

The checking of the tournament equipment, as well as the equipment of the fencers, must be carried out in accordance with the Rules, by personnel who are qualified.

The procedures and guidelines for conducting GHSFL competitions are contained in the GHSFL Competition Manual.

### GENERAL RULES FOR THE ROUND OF POOLS

In all competitions which include a round of pools, these pools will consist of 5, 6 or 7 fencers. In no case shall pools of 4 be fenced.

The pools must be fenced up to the last bout.

Pool of 6 fencers: 1-2 2-3 4-3 1-4 6-5 5-2 3-1 3-6 2-6 5-4 1-6 3-5 4-2 5-1 6-4

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Pool of 7 fencers: 1-4
3-1
2-5
4-6
3-6
7-2
7-1
3-5
5-4
1-6
2-3
2-4
6-7
7-3
5-1
6-5
4-3
1-2
6-2
4-7
5-7
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Since GHSFL tournaments may have pools with sizes other than 6 or 7, the order of bouts for various sizes is provided for reference below. The order of bouts is listed horizontally.

# Pool of 5 fencers:

1-2 3-4 5-1 2-3 5-4 1-3 2-5 4-1 3-5 4-2

## Pool of 8 fencers:

2-3 1-5 7-4 6-8 1-2 3-4 5-6 8-7 4-1 5-2 8-3 6-7 4-2 8-1 7-5 3-6 2-8 5-4 6-1 3-7 4-8 2-6 3-5 1-7 4-6 8-5 7-2 1-3

## Pool of 9 fencers:

1-9 2-8 3-7 4-6 1-5 2-9 8-3 7-4 6-5 1-2 9-3 8-4 7-5 6-1 3-2 9-4 5-8 7-6 3-1 2-4 5-9 8-6 7-1 4-3 5-2 6-9 8-7 4-1 5-3 6-2 9-7 1-8 4-5 3-6 2-7 9-8

# Pool of 10 fencers:

1-4 6-9 2-5 7-10 3-1 8-6 4-5 9-10 2-3 7-8 5-1 10-6 4-2 9-7 5-3 10-8 1-2 6-7 3-4 8-9 5-10 1-6 2-7 3-8 4-9 6-5 10-2 8-1 7-4 9-3 2-6 5-8 4-10 1-9 3-7 8-2 6-4 9-5 10-3 7-1 4-8 2-9 3-6 5-7 1-10

If a bout in a pool is interrupted by an accidental cause, and this interruption is likely to be prolonged, the Referee may, with the consent of the Bout Committee, alter the order of bouts in such a way as to allow the normal progress of the competition to proceed.

The time allowed for a fencer to rest between two consecutive bouts in a pool is three minutes.

In the pools a bout ends when:

- 1. a) One of the fencers has scored 5 touches. In this case the score registered on the score sheet is the final score of the bout (V5–Dn, where n = the number of touches scored by the losing fencer).
- b) If the two fencers reach a score of 4–4, they must fence for a deciding touch, up to the time limit. Any double touch will not be counted (and the fencers will therefore remain where they are on the strip).
- 2. Three minutes of effective fencing time have passed. (There is no warning for the last minute.)
- a) If when the time limit expires there is a difference of at least one touch between the scores of the two fencers, the fencer who has scored the greater number of touches is declared winner. The score registered on the score sheet is the actual score achieved in the bout (VN-Dn), where N= the number of touches scored by the winning fencer and n= the number of touches scored by the losing fencer).
- b) If at the end of regulation time the scores are equal, the fencers fence for a deciding touch, with a maximum time limit of one minute. Before the fencing recommences, the Referee draws lots to decide who will be the winner if scores are still equal at the end of the extra minute.

During this minute, when double touches occur, points will not be awarded, the score will not change, and the fencers will retain their respective positions on the strip.

c) In this case the score registered on the score sheet is always the actual score achieved in the bout:

VN-Dn if a deciding touch is scored within the time limit for the bout.

V-D or V-D or V-D or V-D or V-D if the winner is designated by drawing lots.

Before the competition starts, the host school will announce the number of fencers who will be eliminated based on the ranking established by pools. This number will be 20%

- 1. After the pools, a single general ranking will be established of all the fencers who have taken part in the pools, taking account, successively, of the indices V/M, HS -HR, HS. (V = victories; M = bouts; HS = touches scored; HR = touches received.)
- 2. A summary classification table shall then be made in the following way:
- a) The results written up on the summary table will be added up to ascertain the two indices required.
- b) The first index, for the initial classification, shall be obtained by dividing the number of victories by the number of bouts fought, using the formula V/M.
- c) The fencer with the highest index (maximum 1) will be seeded first.
- d) In cases of equality in this first index, and to separate fencers with equal first indices, a second index will be established, using the formula HS -HR, the difference between the total number of touches scored and touches received.
- e) In cases of equality of the two indices V/M and HS -HR, the fencer who has scored most touches will be seeded highest.
- f)
  In cases of absolute equality between two or more fencers, their seeding order will be decided by drawing lots.
- 3. Should there be absolute equality among the last to qualify there will not be a barrage, and the fencers with equal indicators will all qualify, even if they are in excess of the number decided on.

### Withdrawal

A fencer who withdraws, or who is excluded, is scratched from the pool, and his results are annulled as if he had not taken part.

### GENERAL RULES FOR DIRECT ELIMINATION

The direct elimination bouts are for 15 touches, or when the three periods of three minutes, with a one minute rest between each period, have passed.

During the one minute rests a person, named before the bout, may have access to the fencer

- 1. The bout ends when:
- One of the fencers has scored 15 touches; or
- 9 minutes of effective fencing time have passed.
- 2. The fencer who has scored the greater number of touches is declared the winner.
- 3. If at the end of regulation time the scores are equal, the fencers fence for a deciding touch, with a maximum time limit of one minute. Before the fencing recommences the

Referee draws lots to decide who will be the winner if scores are still equal at the end of the extra minute. During this minute, when double touches occur, points will not be awarded, the score will not change, and the fencers will retain their respective positions on the strip.

In this case the score recorded on the score sheet is the real score achieved in the bout.

## Withdrawal

When, for whatever reason, a fencer cannot fence, or cannot complete his bout, his opponent is declared winner of that bout. A fencer who withdraws does not lose his place in the overall classification of the competition.

### ORDER OF BOUTS

- 1.In each round of the direct elimination table (256, 128, 64, 32, 16, 8 or 4), the bouts are always called in the order of the bout plan, starting at the top and ending at the bottom.
- 2. This rule must also be applied for each quarter of the table, when the direct elimination is taking place simultaneously on 4 or 8 strips.
- 3. A fencer must always be allowed a rest period of ten minutes between two consecutive bouts

### RANKING

1. The general ranking is obtained as follows:

1st: the winner of the bout for the 1st place

2nd: the loser of the bout for the 1st place.

The two fencers who lose the semi-final matches are placed equal 3rd, when it is not necessary to separate them.

When it is necessary to separate them, a bout for 3rd and 4th places will be held between the two losers of the semi-final matches.

The remainder are placed, within each round of the direct elimination, in accordance with their ranking for the composition of the direct elimination table.

The fencers eliminated in the round of pools are ranked according to their ranking in this round and they are placed after those who qualified for the direct elimination.

#### **TEAM FORMAT**

The relay formula is used

The three fencers of one team fence the three fencers of the opposing team (9 relay bouts).

The bouts of each match have to be fought in the following order:

If this order is altered, intentionally or unintentionally, all the touches scored since the modification are annulled and the match is resumed in the correct order.

The position of each team on the match score sheet is decided by drawing lots. The order of the individual fencers is decided by the team captains.

Each bout of the relay match consists of five touches (5, 10, 15, 20, etc.); the maximum time for each bout is 3 minutes.

The first two opponents fence until one of them has scored five touches, within the time limit of 3 minutes.

The next two opponents fence until one of their scores has reached ten touches, within the time limit of 3 minutes, and so on with successive bouts, cumulatively, of five touches. If by the expiration of 3 minutes of fencing time the intended score for the bout has not been achieved, the next two fencers take up the score where it was left off and fence up to the maximum score intended for their bout as normal, within the time limit of 3 minutes. The winning team is that which first reaches the maximum score of 45 touches, or that which has scored the greatest number of touches after the expiration of regulation time. If at the end of regulation time for the last bout the scores are equal, the match continues for a deciding touch, with a maximum time limit of one minute, fought for by the fencers of the last bout in the match. Before the fencing recommences the Referee draws lots to decide who will be the winner if scores are still equal at the end of the extra minute. During this minute, when double touches occur, points will not be awarded, the score will not change, and the fencers will retain their respective positions on the strip.

In the course of a match the captain of a team may ask to substitute for a fencer the reserve nominated before the start of the match. This substitution may only be made at the end of a bout. However, the fencer who has been replaced may fence one more time during that match, but only to replace the fencer who originally substituted for him. No further substitution is allowed, even in the case of an accident or unavoidable circumstances. The announcement that a

fencer is to be substituted, must be made at the latest before the beginning of the bout preceding the next bout of the fencer to be replaced and must be reported by the Referee to the opposing team captain.

If an accident occurs in the bout which follows the request for a substitution, the team captain may annul that request.

If the captain of the opposing team has also requested a substitution, this substitution may be implemented or canceled.

If a member of a team is obliged to retire during a match as the result of an accident which has been duly recognized by the Referee, the captain of his team may ask to put in a reserve to continue the match at the point where the competitor who was obliged to retire withdrew, even during a bout in progress. However, a competitor who is thus replaced cannot again take his place in the team during the same match.

If both a fencer and the reserve, if any, are forced to retire, or if a fencer is excluded, their team has lost the match.

When for any reason whatever a team does not complete an event in which it is taking

part, the Bout Committee will apply the rules laid down for a competitor who does not complete an event in an individual competition, each team being considered in its entirety as being a single competitor.

When a team fails to appear against another team it is considered:

- a) as not completing the event in which it is taking part, if it has already fenced against another team;
- b) as not competing at all in the event, if it is its first match.

## **COMMON CONDITIONS**

The Bout Committee must always attend events from beginning to end, so as to solve any problem which could arise and thus ensure that the event continues to run smoothly.

### **Functions of the Bout Committee**

The functions of the Bout Committee include the obligation to see that the Rules are adhered to and cannot itself decide on any departure

from the Rules except when circumstances arise in which it is absolutely impossible to apply them. The Bout Committee has disciplinary responsibility at competitions, but only as a collective entity.

## **Functions of the Referees**

The functions of the Referees include the strict and complete organization of the refereeing of events. They have the obligation to see that the Rules are adhered to and cannot themselves decide on any departure from the Rules except when circumstances arise in which it is absolutely impossible to apply them.

Referees must attend the referees meeting that takes place prior to the start of each GHSFL tournament

### MATERIAL RULES

## WEAPONS

All epees are authorized providing only that they conform to these regulations and to the safety standards which are attached.

The weapon should be so constructed that it cannot normally injure either the user or his opponent. All methods of treating a blade between the guard and the tip (point), by grinding, filing or other methods, are forbidden.

Sharpening the edges or angles of the point is forbidden.

## General description

Epees are composed of the following parts.

- 1. A flexible steel blade completed at its forward extremity by a point and at the rear by the tang (the latter included in the grip when the weapon is mounted).
- 2. A grip within which the tang of the blade is fixed by a locking nut or in any other way, and which enables the fencer's hand to hold the weapon. It may be composed of one or several parts: in the latter case it is divided into a handle (which is normally held in the hand) and a pommel (rear portion of the grip which locks the handle onto the tang).
- 3. A metal guard fixed (with the convex face towards the front) between the blade and the grip, serving to protect the sword hand. The guard must contain a padding or cushion (cf. m.5.2) to reduce the effect of blows. It will also contain a socket to which the bodycord can be connected.

### **Dimensions**

- 1. The length of the blade includes the point and everything which is added in front of the convex surface of the guard whether or not it is fixed to the latter.
- 2. The total length of the weapon and its various parts corresponds to the distances between lines (planes) drawn parallel to each other and perpendicular to the axis of the blade.

These lines are situated:

A at the forward extremity of the weapon;

B at the point where the blade leaves the front, convex, surface of the guard;

C at the back of the aforesaid guard;

D between the grip and the pommel;

E at the rear extremity of the grip:

- 3. The total length of the weapon is the distance between lines A and E; the length of the blade that between A and B; the length of the grip that between B and E; and the depth of the guard that between B and C.
- 4. The maximum total length of the weapon must be less than the greatest permissible length for the blade and the grip added together. These two latter lengths must, therefore, complement each other to arrive at the total length of the weapon.
- 5. In order to measure either the total length of the weapon or the length of the blade, it is essential that the latter should be without any curve. When measurements are being made, the blade should therefore be held straight on a flat surface.
- 6. Only the pommel or the locking nut may be placed between lines D and E.

The maximum length of the grip in épée is 20 cm, measured between lines B and E, and 18 cm, measured between lines B and D.

The grip must be able to pass through the same gauge as the guard. It must be so made that normally it cannot injure either the user or his opponent.

All types of grips are allowed providing that they conform to the regulations which have been framed with a view to placing the various types of weapons on the same footing. However, orthopedic grips, whether metal or not, may not be covered with leather or any material which could hide wires or switches.

The grip must not include any device which assists the fencer to use it as a throwing weapon.

The grip must not include any device which can increase in any way the protection afforded to the hand or wrist of the fencer by the guard: a cross bar or electric socket which extends beyond the edge of the guard is expressly forbidden.

If the grip (or glove) includes any device or attachment or has a special shape (orthopedic) which fixes the position of the hand on the grip, the grip must conform to the following

conditions: It must determine and fix one position only for the hand on the grip. When the hand occupies this one position on the grip, the extremity of the thumb when completely extended must not be more than 2 cm from the inner surface of the guard.

## The Guard

The convex face of the guard must have a shape and surface which is both smooth and not too bright. It must be so made that it can neither hold nor catch the opponent's point.

It must not have a raised rim.

Inside the guard there must be a cushion (padding) sufficiently wide to protect the electric wires from the fencer's fingers. The padding on the inside of the guard must be less than 2 cm thick and must be arranged in such a way as not to increase the protection which the guard affords the hand.

The connections must be so arranged that it is impossible for the fencer to break or make contacts while fencing.

The two wires must be protected by two insulating sheaths, one on each wire.

Both the wire and the insulating sheath must go right up to the socket. In no case may uninsulated wires project beyond the point where they are attached to the socket

Any system of attachment inside the guard is allowed, provided that it conforms to the following requirements.

- a) It must be easy to detach or attach the bodycord.
- b) It must be possible to check it by a simple method such as using a penknife or a coin.
- c) It must be easy to apply the pointe d'arrêt of the opponent's weapon to the ground circuit connected to the blade.
- d) It must have a security device which makes it impossible for the contact to be broken

during the bout. In the absence of a security device being fitted to the weapon, a security device must be fitted to the plug of the bodycord.

- e) It must ensure the complete connection of the electric wires; it must be impossible for even a momentary break of contact to occur while the plugs are connected.
- f) It must not include any part which allows electrical contact to be made between the plug sockets.

The maximum electrical resistance allowed for épée is 2 O.

Those who wish to assemble electric weapons, but who are not equipped to undertake electrical tests, are advised that the limits for the electrical resistance for the circuits laid down for each weapon have been fixed so that they can be attained by anyone who is reasonably careful.

- c) They are advised:
- i) thoroughly to de-oxidize the external surface of the guard and the connecting surfaces inside it:
- ii) not to damage the insulation of the wires, especially where they pass along the groove in the blade at the point and at the guard;
  - iii) to avoid accumulations of glue in the groove of the blade.

# **EQUIPMENT AND CHECKING OF WEAPONS**

Only traditional or homologated pointes d'arrêt are accepted. No other kind of pointe d'arrêt, notably new ones that are not homologated, will be accepted at the weapon control.

In order to make the identification easier, please note that a traditional pointe d'arrêt has two screws to fix the tip of the pointe d'arrêt to the base, the whole is in metal and there is no plastic in the base.

In order that the registering of hits by the contact of the point on the opponent be correctly registered by the scoring device, the pointes d'arrêt must be clean. The electrical resistance measured in ohms must not exceed the limit of 2 ohms

The blades and the guards must be totally of metal. Their exteriors must not be covered by any material (plastic or other).

The guard may not feature any advertising.

Any fencer or other person who tries to register touches in a way that does not comply with the rules, either with the weapon or by manipulating the scoring device, will be excluded from the competition or from the competition zone and, after identification, will be liable to further penalty.

## **EPEE**

The total weight of the épée ready for use is less than 770 g. Length

The total maximum length of the épée is 110 cm (cf. m.3). The blade

1. The blade, which is triangular in section without cutting edges, is made of steel and must comply with the safety standards of USA Fencing.

There are two methods of manufacture:

By forging a steel cylinder

By folding a sheet of steel

2.

It should be as straight as possible and mounted with the groove uppermost. Any curve of the blade must be uniform and the maximum bend must in any case be less than 1 cm; it is only permitted in the vertical plane and must be near the center of the blade.

The curve of the blade must be measured as follows:

- i) the blade is placed on a flat surface so the curve is uppermost;
- ii) the maximum distance between the flat surface and the blade is measured: this distance is deemed to be the curve of the blade.
- 3. The maximum length of the blade is 90 cm.
- 4. The maximum width of any of the three sides of the blade is 24 mm.
- 5. The blade should have a flexibility equivalent to a bend of 4.5 cm minimum and 7 cm maximum measured in the following way.
- a) The blade is fixed horizontally at a point 70 cm from the extremity of the point.
- b) A 200 g weight (tolerance  $\pm 1$  g) is suspended 3 cm from the extremity of the point.

The guard, which must have a circular edge, must be able to pass through a cylindrical gauge having a diameter of 13.5 cm and a length of 15 cm, the blade being parallel to the axis of the cylinder. The depth of the guard (the distance between lines B and C) must be between 3 cm and 5.5 cm.

- 2. The total length between lines A and C must never be greater than 95.5 cm (cf. m.3).
- 3. Eccentric mounting is allowed provided the distance between the center of the guard and the point where the blade passes the guard does not exceed 3.5 cm.

### Electric wires

The épée has two electric wires, glued in a groove in the blade, which connect the point to two of the three sockets situated inside the guard and which form the active circuit of the épée. The body of the épée is connected to the third socket.

2. The handle must have, at the end which is in contact with the guard, a notch of 2 mm minimum depth, which allows the electric wires and their insulating sheaths to pass towards the sockets inside the guard without being squashed

### Point and barrel

- 1. The electric barrel is completed by a point (pointe d'arrêt) which must conform to the following specifications
- a) The point is cylindrical. Its front surface is flat and perpendicular to its axis. Its edge will either be rounded with a radius of 0.5 mm or have a chamfer of 0.5 mm at 45°
- b) The diameter of the crown of the pointe d'arrêt is 8 mm with a tolerance of  $\pm$  0.05 mm. The diameter of the base must not be less than 7.7 mm.
- c) The flange (collar) which guides the pointe d'arrêt as well as the insulating washer must be sufficiently recessed in relation to the crown (it is recommended that it be recessed in diameter by 0.3–0.5 mm) so that it shall not be possible to cause a touch to be registered merely by sliding the depressed pointe d'arrêt against the convex surface of the guard
- 2. The pressure required on the pointe d'arrêt in order to complete the circuit in the épée, and thus cause the apparatus to register a touch, must be more than 750 g, that is to say that this weight must be lifted by the spring of the point.
- 3. The weight used to check competitors' épées on the strip consists of a metal cylinder drilled part of the way along its axis with a hole parallel to its sides; this hole, into which is inserted the end of the blade, must have an insulating lining to prevent its metallic parts coming into contact with the grounded mass of the épée which might then give a false result to the test.

This weight of 750 g may have a tolerance of  $\pm$  3 g, i.e., 747–753 g.

- 4. a) The course or travel of the pointe d'arrêt required to complete the circuit in the épée and thus cause the apparatus to register a touch, called the lighting stroke, must be greater than 1 mm. The further course which the pointe d'arrêt may travel must be less than 0.5 mm. (This requirement is just as essential as that for the lighting stroke.) The gauge used should have a tolerance of a maximum of  $\pm 0.05$  mm.
- b) To enable a check to be made on the strip, the total course or travel of the point must be greater than 1.5 mm (cf. t.43). The gauge used should have a tolerance of a maximum of  $\pm 0.05$  mm.
- c) Adjusting the lighting stroke by means of screws or any other external fixing device, once the point has been assembled on the weapon, is forbidden.
- d) An external screw or similar fixing device is only allowed if it is actually part of the assembling of the point
- e) The head of the screw or fixing device must never project beyond the flat top surface of the point and its housing in the flat surface may not exceed 2 mm in diameter.
- 5. The pointe d'arrêt must be retained in the barrel in at least two points equally spaced

6. When there is a touch, the electrical contact must be established.

Method of affixing the barrel

If the base of the barrel is not made in one piece with the blade, or if it does not permit the flattened inset piece at the tip of the blade to be retained, the barrel must be screwed onto the end of the blade, which must be cut and threaded for this purpose under the following conditions.

- 1. Normally, only fixing by metal to metal is allowed.
- 2. Only solder of very easily melted tin, used with a soldering iron, to prevent the tip from coming loose, is authorized.
- 3. The end of the blade, before cutting the thread, must not have a diameter at any point which is less than 4 mm and this without anything being wrapped around it, a process which is strictly forbidden.
- 4. a) The diameter of the core of thread at the end of the blade must not be less than 3.05 mm (thread SI  $4.0 \times 0.70$ ).
- b) The part of the blade on which the barrel is fixed should be of a length of 7–8 mm entirely covered by the barrel. It is recommended that only the half of this length, at the extremity of the blade, be threaded. For the other half, the barrel will have a smooth surface of 4.0 mm diameter into which it should take some force for the corresponding part of the blade to be introduced.
- 5. The groove necessary to enable the wires to enter the barrel must be cut in such a way that it weakens as little as possible the section of the blade.

#### **GENERAL RULES**

- 1. The equipment and clothing must provide the competitor with the maximum protection compatible with the freedom of movement necessary for fencing.
- 2. It must not be possible for the opponent to be obstructed or injured by the equipment, nor for the opponent's weapon to be caught up in or deflected by the equipment which, in consequence, must have neither buckles nor openings in which the opponent's point may be caught up—except accidentally—and thus held or deflected. The jacket and its collar must be completely buttoned or done up.
- 3. a) Fencers' clothing must be made of sufficiently robust material and be clean and in good condition.
- b) The material from which the equipment is made must not have a surface which is smooth enough to cause the point or the opponent's touch to glance off
- c) Clothing must be made entirely in cloth able to resist a pressure of 800 Newtons. Very particular attention must be paid to the way the seams under the armpits, if

there are any, are made. An under-garment consisting of a protective under-plastron covering the vital upper areas of the body resistant to 800 Newtons is also mandatory.

4. The lower edge of the jacket must overlap the knickers by at least 10 cm when the fencer is in the on-guard position

The jacket must include a lining making a double thickness of material for the sleeve down to the elbow of the sword arm and covering the flank up to the region of the armpit. The fencer is required to wear a regulation jacket, which must cover the whole of the surface of the trunk.

- 5. The use of breast/chest protectors (made of metal or some rigid material) is compulsory for women and optional for men
- 6. The knickers must be fastened below the knees. With knickers, the fencer must wear socks which cover the legs right up to the knickers. These socks must be held up in such a way that they cannot fall down.
- 7. The gauntlet of the glove must, in all circumstances, fully cover approximately half the forearm of the competitor's sword arm to prevent the opponent's blade entering the sleeve of the jacket.
- 8.a) The mask must be made with meshes (space between the wires) of maximum 2.1 mm and from wires with a minimum gauge of 1 mm diameter. The mask must include a safety strap at the rear.
- b) Masks must be weapon specific and must be made in accordance with the safety standards and must carry the quality label specified in those standards.
- c) When the checks are carried out the person responsible for them may, if in doubt, ensure that the mesh of the mask, both at the front and at the sides, is able to withstand, without permanent deformation, the introduction into the mesh of a conical instrument, the angle of the surface of the cone being at 4° to the axis and at a pressure of 12 kg.
- d) A mask which does not comply with the safety requirements laid down in this article will be rendered visibly unusable by the weapon checking personnel or the Referee in the presence of the person who presented the mask to the weapon check or the team captain of the fencer concerned.
- e) The bib of the mask must be made with cloth resistant to 1600 Newtons.
- f) The mask must contain a horizontal safety strap at the rear of the mask, with the two ends of the strap firmly affixed to the two sides of the mask. This strap may be elastic or of any other material that may be approved by the S.E.M.I. Commission.

An FIE homologated mask is not required for USA Fencing competition.

## **RULES SPECIFIC TO EPEE**

### Mask

- 1. The mask must not be covered, in whole or in part, by material which can cause the point to glance off
- 2. The mask must be so shaped that the bib reaches below the prominences of the collar bones (clavicles).

Foil and saber masks with lamé material attached to the bib and/or non-insulated mesh on the masks are prohibited for use in electrical épée competitions.

# Bodycord

The conductive wires of the bodycord (the fencers' personal equipment) must be well insulated from each other, insensitive to humidity, and either joined or twisted together.

The maximum electrical resistance allowed for each of these conductive wires from plug to plug is 1 O.

The bodycord has a connecting plug at each end. In the absence of a security device being fixed to the weapon, a security device must be fitted to the plug of the bodycord.

- 3. At the reel end, a three-pin male plug is connected to the wire as follows:
- a) the pin 15 mm from the center pin to whichever wire is most directly connected to the pointe d'arrêt;
- b) the center pin to the other wire on the épée;
- c) the pin 20 mm from the center pin to the épée's ground circuit and to the conductive strip.
- 4. This plug must conform to the conditions of manufacture and mounting
- 5. Inside the guard the choice of system is free but the system chosen must comply with the conditions of manufacture
- 6. In addition, the pins of the plug must not on any account permit contact with the metal of the guard.

The two wires coming from the tip must be protected by two insulating sheaths, one for each wire, from the point where they enter the guard right up to the two insulated connections on the plug socket. In no case may uninsulated wires extend beyond the plug connections

#### Glove

1. The material of the fencing glove must have a level of protection of 800 N on the areas shown in the diagram below, the seams a minimum of 200 N, and cuff a level of protection of 350 N. The conductive material, which can be removable or fixed, must cover all of the gauntlet of the glove down to below the external cubital styloid (small prominent bone of the wrist), both when the fencer is in the on-guard position and when the sword arm is straight. Inside the glove there must be fixed the FIE quality label, granted after the

homologation procedure, with the year of manufacture and stating 800 N.

This diagram is for guidance purposes only. In case of any doubt, the wording of the appropriate text takes precedence

## **CHECKING OF FENCERS' EQUIPMENT**

- 1. In all official GHSFL competitions the fencers are responsible for their equipment (including weapons and clothes) at the moment they present themselves on the strip.
- 2. In particular, blades, masks and clothing must all carry the label of guarantee specified in the safety standards appended to these Rules.
- 3. The forms of checking laid down by these Rules are only intended to help organizers who must apply the Rules and fencers who must always respect these Rules. These checks can, therefore, in no way absolve any fencers who break the Rules from responsibility.

## PRESENTATION OF EQUIPMENT TO WEAPONS CHECK

Fencers are obliged to present themselves at the Weapon Checking Center, with the equipment they intend to use during the event in question. The number of articles handed to the Checking Center is limited to two gloves and two masks per fencer.

The items of equipment which have been checked at the Weapons Checking Center will be distinctively marked. A fencer must not, on pain of penalties, use any equipment which does not bear this check mark.

### **CHECKING PERSONNEL**

- 1. In order to allow those carrying out the checking to fulfill their task, the host schools are required to make available the equipment and the personnel necessary to carry out the work.
- 2. The host school must provide a special stamp to be affixed to each item to enable the referees to verify that it has been checked. Nevertheless, it is the task of the Referee to check, before each event, that the mask and glove, having been checked and marked, conform to the Rules, and accordingly to make the final decision whether each item may be used.

### MATERIAL PROVIDED BY THE COMPETING SCHOOLS

All electrical judging equipment includes, in addition to the equipment provided by the fencers themselves, the material provided by the competing schools, which is The central scoring box
The reels, with cables and connections

The recis, with capies and connection

The source of electrical current

### **SCORING APPARATUS**

Only electrical apparatus designed with wires connecting the fencers to the central apparatus and registering touches by light signals with auxiliary sound signals are authorized, except for apparatus without wires using encoded waves authorized by the SEMI Commission; this expressly excludes apparatus based on wireless waves and those which register sound signals only.

Approval of designs of apparatus

m 46

1. Judging apparatus for use in a World Championship or the Olympic Games must have been approved by the SEMI Commission of the FIE.

2

In order to obtain this approval, the apparatus which it is proposed to use must be submitted complete, with reels, connections, etc., for an examination by the said Commission, at a place and on a date to be agreed with the Commission, at least six months before the date of the competition.

3. The apparatus must be accompanied by a detailed drawing showing its construction. m.47

Approval is given for the use of the apparatus in one specific official competition only. The SEMI Commission is willing, as far as it is able, and without charge, to examine prototypes of apparatus submitted by constructors even if the use of such apparatus is not envisaged for an imminent official competition.

### m.48 1.

Approval is given for only one established design of apparatus which conforms to the drawing submitted, and is not given as a general approval for all the products made by any manufacturer. The latter may state in their publicity only the fact that the design of apparatus which they offer for sale has been used at a specific official competition (if this in fact is the case); but they themselves must guarantee that the apparatus conforms to the design for which approval was given.

2.

Every approved apparatus must carry, on its base, a metallic plate identifying its specific characteristics: manufacturer, year of manufacture, model, technical information, etc. m.49

The approval of an apparatus by the SEMI Commission as well as its acceptance implies no guarantee against possible faults of construction, or against its use with a source of electrical current other than batteries (cf. m.58).

m.50

All expenses incurred by the SEMI Commission for the examination of apparatus are the responsibility of the persons submitting the apparatus.

Specifications for all electrical equipment (cf. Specifications for all electrical equipment

#### m.51

- 1. A touch made on the conductive strip or on the metallic parts of the weapon must not be registered by the apparatus, nor may it prevent the registering of a touch made simultaneously by the opponent. In foil, a touch made on a part of the foil may register if an uninsulated part of the weapon of the fencer is in contact with his conductive jacket.
- 2. The apparatus must not have any device whereby anyone other than the person detailed to supervise it can interrupt its working during a bout.
- 3. Touches are registered by visual signals. The signal lamps must be placed on the top of the apparatus, in order that they may be visible to the Referee, the competitors and the superintendent of the apparatus. They must be so positioned that they show clearly from which side the touch was made. Arrangements must be made so that extension lamps can be added to the exterior of the apparatus, in order to increase the visibility of the signals.
- 4. Once the signal lamps are alight, they must so remain until the apparatus is reset, without their having any tendency to go out or flicker either when subsequent touches are made or if the apparatus is subjected to vibrations.
- 5. The visual signals must be accompanied by audible signals.
- 6. The resetting switches must be placed either on top of or on the front part of the apparatus.
- 7. a) For official competitions of the FIE, the source of power must always be batteries. The wiring of the box to be powered in this way must be designed so that it is impossible for the box to become connected by mistake to the mains supply.
- b) All fencing salles, clubs, etc., and the organizers of training sessions or competitions involving weapons using electrical equipment, may use the current supplied by the mains on condition that they adhere strictly to the technical standards laid down on the subject by their countries and international communities.
- 8. a) If the clock is not incorporated in the electrical judging apparatus, the apparatus must have a system for linking in an external clock. This clock must be powered by electricity from a 12 volt battery. A disconnection of the wiring which links the clock to the apparatus must cause, simultaneously, the blocking of the apparatus which registers touches, in a manner which preserves what it has registered up to that point, and the stopping of the clock.
- b) To allow the apparatus to be used when it is not connected to the clock, there must be a switch in the interior of the apparatus which can change its operating mode (cf. t.32, m.44).
- 9. For the finals of official competitions of the FIE, the clock must be equipped with a system which connects it to some external extension clocks displaying large luminous numbers,

and with another system for the connection of the audible signal. These two connection systems must be separated from the circuits situated inside the central judging apparatus by means of opto-couplers (cf. t.32, m.44).

10. When the cable connecting the audible-signal apparatus to the clock is disconnected, the audible-signal apparatus must emit a sound of between 80 and 100 decibels (measured at the center line of the strip) lasting between 2 and 3 seconds, but the central judging apparatus must not be blocked and the clock must not be stopped (cf. t.32, m.44, m.51.9).

### REELS AND CABLES

- 1. The maximum electrical resistance of each wire of the reel, measured from socket to socket, must be 3 O.
- 2. There must be no interruption of electrical contact even when the reel is being rotated at full speed. To ensure this, the contact rings must have double brushes. The wire connected to the blade of the weapon will be connected to the frame of the reel.
- 3. The reels must allow 20 m of cable to be unwound without straining the springs.
- 4. The socket which terminates the reel cable, and is designed to receive the plug of the bodycord at the fencer's back, must include a safety device which fulfills the following requirements:
- that it is impossible to use it unless the plug is correctly put in;
- that it is impossible for it to become separated during the bout;
- that it is possible for the competitor to verify that the two foregoing requirements are satisfied.
- 5. The resistance of each of the three wires in the connecting cables must not exceed 2.5 O.
- 6. The plugs used to connect the bodycord to the reel wire and the connecting cables to the reels and to the apparatus must have three pins of 4 mm diameter arranged in a straight line. The external pins must be spaced 15 and 20 mm respectively from the center pin. The

bodycord and the connecting cables have plugs, the reel wires and the central electrical apparatus have sockets to them.

7. The use of suspended cables instead of reels is permitted, provided that the conditions already mentioned are satisfied.

## m.56

- 1. The organizers must ensure that the reels have cables of at least 20 m in length so that they do not get ripped out in the event of a flèche made at the end of the strip.
- 2. It is desirable for the reels to be placed close to the strips, but outside them so that fencers do not trip over them.
- 3. The cables connecting the reels to the apparatus should be of the three core type and be covered with rubber or plastic to protect them from humidity and blows.
- 4. Conductive strips should be grounded through the center of the strip.
- 5. Those in charge of checking equipment during competitions must have a simple and practical device at their disposal to allow them to check quickly that there are no breaks

or short-circuits in the three wires of the reels.

### APPENDIX A TO THE MATERIAL RULES

#### Introduction:

Fencing material used in official FIE competitions and carrying the FIE logo must, without exception, have obtained a certificate of homologation, certifying that a specific item of fencing material complies with FIE Rules.

The homologation procedure is carried out by the FIE SEMI Commission under the supervision of an Executive Committee representative.

The homologation certificate is delivered following the successful passing of the homologation process described hereafter.

The manufacturer must wait for the result of the homologation process to be published and for the certificate to be issued prior to beginning production and/or commercialization.

The FIE SEMI Commission is composed of 10 elected members and the FIE COMEX representative and, in case of need, the SEMI Commission may consult experts from different fields to ensure the quality and expertise of the homologation process.

For software homologation, a delegate from the Rules Commission is mandatory.

## Field of application:

Homologation is compulsory for blades, points, protective clothing (jackets, breeches and under plastrons) including masks and gloves, fencing scoring apparatuses (both with wires and wireless), strips, video refereeing systems and competition management software.

This list is not exhaustive and can be extended at any time by the Executive Committee.

# Homologation process:

- 1) The homologation request must be addressed in written form to the President of the SEMI Commission. The request must contain all the documents requested in the appropriate technical handbook.
- 2) The President of the SEMI checks the request for theoretical conformity (completeness of the file, complying descriptions...) and replies within 14 days to the person making the request. An application which fails is sent back to the person making the request with explanations for the rejection. A successful application is forwarded to the FIE SEMI Commission members with a copy to the person making the request.
- 3) The Manufacturer and the independent Institute of his choice should both send the

with the request for homologation. The only specialized institutes approved by the SEMI are CRITT, Denkendorf and IFTH for clothing (jackets, breeches and under plastron) and masks; and CRITT, Sofranel and Visti for blades.

Equipment failing to pass the tests may be modified following SEMI instructions and submitted again for the homologation process.

- 4) Equipment needing to be tested in a competition will be given a provisional homologation to be used at a specific competition, agreed with the representative of the Executive Committee and the organizer of the chosen competition at the proposal of the SEMI President.
- 5) After successfully passing all tests a sample of each piece of equipment should be sent to the President of the SEMI for analysis and reference; if the results of this analysis are satisfactory the specification of the equipment is given FIE homologation
- 6) Every step in the homologation process is documented in conformity with the technical handbooks. The person making the request has free access to the documentation. Every member of the SEMI Commission must receive the full documentation. However, to protect intellectual property these documents are not available to the public at large.
- 7) The final homologation is published on the FIE website.
- 8) CE certificates and tests are given by specialized institutes. The SEMI provides lists of equipment which has received homologation, published on the FIE website and with the appropriate certificates.

## Modification management:

- 1) The homologation is valid for the duration specified in the technical handbooks as long as no modification is made to the equipment or its manufacturing process.
- 2) Any change must be reported to the FIE SEMI Commission President.
- 3) The modified equipment must pass the whole homologation process again. In particular, if a manufacturer intends to change the material or the manufacturing of his FIE certified equipment, he must submit it to a new homologation process and wait for the result.

### Technical handbooks:

- 1) Technical handbooks are elaborated by the SEMI and submitted to the Executive Committee
  - 2) Technical handbooks are specific to each item of equipment

#### Marks:

It can only be used on equipment that has successfully undergone the FIE homologation process.

By affixing the FIE label of quality to their equipment manufacturers guarantee that such marked equipment fulfils FIE technical and security requirements.

## Expenses:

All the expenses and costs related to the homologation of the equipment (masks, blades, breeches, jackets, under-plastron), pistes and apparatus, software and video systems are chargeable to the requester.

Withdrawal or suspension of a homologation:

- -Homologation can be withdrawn or suspended when the SEMI Commission becomes aware that:
- a) the homologated material no longer conforms with the Rules; or
- b) after the homologation has been granted, the material has been modified significantly and the modifications have not been submitted for a new homologation.

## Random quality control of fencing equipment:

Having obtained the equipment, the SEMI will submit it to technical analysis for quality control purposes. Should there be any doubt as to the quality of the item, the SEMI may send it directly to an agreed independent institute for testing; tests will be carried out in accordance with the existing FIE material rules and with CE/EC standards. Should the tests reveal any non-conformity or any lowering of quality level, the SEMI will take appropriate action, which may involve the application of a penalty. In extreme cases, the manufacturer may lose a previously awarded FIE homologation. Occasional check:

The SEMI alone may:

- -carry out occasional checks on blades (three blades);
- -at World Championships, obtain a selection of blades bearing the official FIE guarantee stamp;
- -have the blades tested at the approved laboratories, distributing the work evenly between them. Should the blades fail the tests, the manufacturers will pay for the blades and for the costs of the tests, their homologation will be annulled and the manufacturer will have to submit ten further blades for a new homologation process. There will be no certificate issued for the occasional check

### **WEAPONS**

### 1. Purpose

This specification refers to the steel that may be used for the construction of blades for fencing, its quality, its manufacturing process, the controls and tests to be conducted.

#### 2. General conditions

The steel used for the manufacture of fencing blades must have the ability to withstand high levels of exertion, a high degree of resistance to breaking and a low susceptibility to corrosion.

### 3. Characteristics of the material

The structure of the steel, after treatment and manufacturing processing to obtain the finished product, must be smooth and homogeneous.

Faults in the interior or on the surface of the finished product itself are not permitted. Having definitively established the type of steel being used, the appropriate heat treatments are compulsory.

### 3.1. Mechanical characteristics

The mechanical characteristics of the steel, after heat treatment, must conform to the requirements in Table I.

# Table I. Mechanical characteristics of steel

```
Rp0.2

N/mm2

Rm

N/mm2

A

%

Z

%

KCU

Joule/cm2

KIC

MPavm

HV

= 1900 = 2000 = 7 = 35 = 30 = 120 = 500
```

## 3.2. Chemical analysis

The allowable limits of the composition of the different elements and impurities for the different types of steel are listed in Table II.

Table II. Chemical composition (in percentage terms)

Steel
GMG \* \*
C = 0.03
S = 0.0005
P = 0.005
Si = 0.10
Mn = 0.10
Cr = 0.50
Ni 18 - 20
Mo 4 - 5
Cu = 0.30
Sn = 0.005

Al 0.05 - 0

B = 0.003Co 8 - 13
Ti 0.5 - 2.0
Ca 0.005 Zr = 0.02

\* Types of steel still the subject of experiment must be included in this table, as they must conform to the characteristics

detailed in point 3.1 of the specification.

Application: Non-maraging steel épée blades will no longer be accepted for homologation after 01/01/2014 and non-maraging steel épée blades already homologated will not be accepted in FIE competitions from 12/31/2015.

## 3.3. Manufacturing process

The products must be subjected to a manufacturing process corresponding to those indicated for the different types of steel in Table III.

## Table III. Manufacturing process

**Process** 

**GMG** 

- 1. Forging at temperatures between 1150°C and 950°C
- 2. Air-cooling with the blades spaced apart
- 3. Mechanical machining (removal of extra thickness by reworking)
- 4. Homogenization at  $950^{\circ}\text{C} \pm 10^{\circ}\text{C}$  for 1 hour
- 5. Immersion heat treatment at  $820^{\circ}\text{C} \pm 10^{\circ}\text{C}$  for 1 hour
- 6. Air-cooling with the blades separated
- 7. Aging at 480°C for 9 hours
- 8. Air-cooling with the blades separated
- 9. Tempering

\*

\*

\* Types of steel still the subject of experiment must be included in this table, as they must conform to the characteristics

detailed in point 3.1 of the specification.

4. Tests and examinations (material)

The tests and examinations to which the steel must be subjected are as follows:

- Chemical analysis
- Traction test
- Ductility tests
- Fracture resistance tests
- 4.1. Chemical analysis

The sample must have a minimum mass of 50 g. The chemical composition in percentage terms must conform to that laid down in Table II for the corresponding type of steel.

## 4.2. Traction test

The test must be conducted on a test sample of circular section whose dimensions are indicated at the end of this Appendix (Figure A.8), taken from materials that have been subjected to the same heat treatment as specified for materials for the manufacture of the blades.

The tensile strength values must conform to those laid down in Table I.

#### 4.3.

The test must be conducted on a test sample with a groove in the form of a V, whose dimensions are indicated at the end of this Appendix (Figure A.8), taken in the longitudinal direction from materials that have been subjected to the same heat treatment as specified for materials for the manufacture of the blades.

The value must conform to that laid down in Table I.

## 4.4. Test of fracture toughness, KIC

The KIC value of the steel must be measured by traction on a CT sample which has the dimensions indicated at the end of this Appendix (Table VIII), made from materials subjected to the same thermal treatment as required for the blades, notched mechanically initiating a fatigue crack at the apex of the notch. The test must be conducted according to the methods indicated by the standard ASTM E 399. The value must conform to that laid down in Table I.

In cases where it is not possible to obtain a CT sample, the factor of increasing levels of dynamic loading (KId) may be determined instead of the KIC value. The test must be conducted on ductility samples with a groove in the form of a "Charpy

V," with dimensions as indicated at the end of this Appendix (Table VIII). The results must conform to the reference standards.

## 5. Characteristics of the finished product

## 5.1. Shape

The blades, classified according to the type of weapon, must have the shapes indicated in Appendix A and satisfy the conditions established by the FIE Rules.

#### 5.2. Surface defects

The blades must be free of surface faults which could compromise their use (folds in

lamination, cracks, splinters, decarbonization).

## 5.3. Surface roughness

At the conclusion of their manufacturing process the blades must be subjected to finishing, to ensure a surface roughness of = 0.1 mm. The grinding marks must only extend in the longitudinal direction of the blade.

The tests and examinations to which the steel must be subjected are as follows:

— Chemical analysis

- Traction test
- Ductility test
- Test of fracture toughness, KId
- Hardness test
- Microscopic examination of the structure
- Corrosion test
- Non-destructive control
- Fatigue resistance test
- 6.1. Chemical analysis

The sample must have a minimum mass of 50 g. The chemical composition in percentage terms must conform to that laid down in Table II for the corresponding type of steel.

#### 6.2. Traction test

The test must be conducted on a sample of circular section, taken from the blade, whose dimensions are indicated at the end of this Appendix (Figure A.8).

The values of the tension characteristics must conform to those laid down in Table I.

#### 6.3. Tensile test

The test must be conducted on a sample taken from the blade, without notches, whose dimensions are indicated at the end of this Appendix (Figure A.8). The value must conform to that laid down in Table I

# 6.4. Test of strength at the fracture point, KId

The KId value must be established by testing on the traction test samples with a groove in the form of a "Charpy V," with dimensions as indicated at the end of this Appendix (Table VIII).

The results must conform to the reference standards.

#### 6.5. Hardness test

The hardness of the material, determined on the exterior surface of the finished product, must conform to that laid down in Table I.

The examination must be carried out at 500 magnifications on a sample taken from the blade.

The structure submitted must be smooth and homogeneous, conforming to grain dimensions of 7–8 microns in accordance with the standard of reference and corresponding to that resulting from the heat treatment specified in Table III for the corresponding type of steel.

### 6.7. Non-destructive control

Before being put on the market, all blades must be subjected to a non-destructive control, using an electromagnetic apparatus employing Foucault currents, to explore for surface and below-surface faults. This control is compulsory, and must be carried out over the entire surface of the blade.

## 6.8. Alternate bending test (optional)

In order to examine the behavior of blades and the effects induced on the material when the blades are deformed in a plastic manner by the method of alternate bending, new blades selected at random and supplied from actual production lots must be subjected to test using the special equipment indicated in the Appendix.

The test consists of making a section of the blade bend plastically, in one direction with a radius of inflexion of 60 mm, in the opposite direction with a radius of inflexion of 100 mm, in order to obtain an approximate straightening.

The section of blade involved in the test must be approximately 155 mm long, of which 60 mm from the point must not sustain any deformation.

A cycle consists of one bending plus one straightening. The result of the test is represented by the number of cycles completed before the blade breaks.

To check safety conditions during the normal use of blades, the samples tested must be subjected to a series of alternate bendings at a frequency of not more than 1 Hz (1 Hz = 1 cycle per second), verifying that the blade does not break before:

- 400 cycles for foil;
- 150 cycles for épée,

when the cycles have been conducted in accordance with the method described above.

#### 66.9.

In order to examine the behavior of the blades during normal fencing activity, the blades to be tested must undergo a test of their resistance to metal fatigue, with a special apparatus, either mechanical or pneumatic, homologated by the FIE SEMI Commission.

The test consists of bending the blade without exceeding the limit of elasticity of the material, i.e., to the point where a bend of approximately 220 mm is reached, corresponding to a shortening of the blade by approximately 250 mm, and then allowing it to straighten.

The test machine must be able to allow the bending and straightening of the blade at a frequency of 1 Hz (1 Hertz = 1 cycle per second).

The test benches are designed to reproduce the stresses to which a blade is subjected in normal fencing activity. The stresses do not go beyond the limits of the elasticity of the blades; a permanent deforming of the blade should not take place. The number of bends to which a blade is subjected before breaking defines its resistance to metal fatigue.

The test benches can be used for bending either without impact (with the end of the blade attached to a revolving support) or with impact (with the end of the blade unattached).

The test should continue until the blade breaks. For the result to be acceptable, it must be ascertained that the blade does not break before:

- 18,000 cycles for foil blades;
- 7,000 cycles for épée blades.
- 6.10. Evaluation (in percentage terms) of the surface of the progressive fracture The surface of the fracture obtained at the moment of breaking in the test in points 6.8 and
- 6.9 above must be analyzed in order to measure the extent of the surface over which the rupture has developed progressively.

The measure must be expressed as a percentage of the surface of the entire section subject to the test.

The acceptability of the mechanical characteristics of the blade is confirmed when the measured percentage value is not lower than 15% for foil and 6% for épée.

### 7. 7.

For each of the tests and examinations detailed in point 6 the results must comply with the following table.

Table IV. Results of tests and examinations

Point of reference Examination or test Results

- 4.1, 6.1 Chemical analysis Must conform to Table II
- 4.2, 6.2 Traction test Must conform to Table I
- 4.3, 6.3 Tensile test Must conform to Table I
- 4.4, 6.4 Test of fracture resistance Must conform to Table I
- 6.5 Hardness test Must conform to Table I
- 6.6 Microscopic examination of structure Must conform to point 6.6
- 6.7 Non-destructive test Must conform to point 6.7

#### 8. Marking

The identification mark of the manufacturer and the date of manufacture (year and month) must be applied on each blade by cold-stamping near the entry into the guard, to a maximum depth of 0.5 mm.

Note: All the standards may be modified. It is therefore important that manufacturers of blades are absolutely sure that they are in possession of the latest edition or of the latest update page.

## MESH OF FENCING MASK

### 1. Purpose

These specifications concern the technical quality of the round cold-drawn wire of carbon stainless steel intended for the manufacture of the mesh of fencing masks, the processes of its production, and the controls and tests to carry out in its use.

## 2. General conditions of raw material

The steel intended for the manufacture of the mesh of fencing masks must possess excellent qualities of strength and a high level of elasticity and plastic deformation, as well as a very

good resistance against corrosion.

### 3. Materials

# 3.1. Chemical composition

The composition of the machined wire to be used to manufacture the wire complying with the present rules, depending on the type of steel chosen, must include the following, in percentage terms.

Table V. Chemical composition

Element
Type of steel
304 304 L 321
C 0.03-0.06 < 0.03 < 0.08
Mn < 2 < 2 < 2
Si < 1 < 1 < 1
P < 0.04 < 0.04 < 0.04
S < 0.03 < 0.03
Cr 18-20 18-20 17-19
Ni 8-10.5 9-12 9-12
Ti - 5 x Cmin (< 0.8)

For information, some of the most widely used types of steel are shown above; they satisfy more or less the following defined standards:

For information, some of the most widely used types of steel are shown above; they satisfy more or less the following defined standards:

EURONORM 88-71 (EEC)

- UNI 6901-71 (Italy)
- AFNOR NF A 35-572 (France)
- DIN 17440 (Germany)
- BSI PD 6290 (Great Britain)
- MNC 900 E (Sweden)
- JIS G 4306-1972 (Japan)
- GOST 5632-61 (Russia)

## 3.2. Processing the steel and manufacturing the wire

The method of processing of the steel is entrusted to the supplier. The hot processing to obtain the machined wire must be such that it can ensure a high level of consistency in the materials and an absence of discontinuity and of faults in the interior and on the surface of these same materials.

The process of cold wire drawing, to reduce the section in order to obtain the desired diameter, must provide for adequate intermediate tempering for the manufacture of the tempered materials. In any case the last step of the wire drawing must be preceded by a

chemical solution treatment at 1050–1100°C (stainless steel tempering) for types 304 and 304 L or a stabilization treatment at 850–900°C for type 321.

The last step of the cold wire drawing must involve a hardening process defined commercially as approximately 1/4 hard (H4), with a corresponding reduction in section of = 15% and carried out in such a way as to ensure the materials possess the minimum values of the mechanical characteristics indicated in point 3.4.2 of this specification.

## 3.3. Dimensions of the wire and tolerance

Table VI. Dimensions and tolerance

Diameter (d) (mm) Tolerance \* on d (mm) Section (mm2) Weight per 1000 m (kg)  $1.0 \pm 0.02 \ 0.725 \ 6.28$   $1.1 \pm 0.02 \ 0.950 \ 7.50$ 

\* The lack of roundness of the wire must not exceed half the tolerance. Intermediate values of the diameter of the wire are allowed on condition that they conform to the tolerances indicated.

# 3.4.1. State in which supplied

The wire must be supplied bare with a polished surface: The surface must not show any faults such as scratches, pock marks or other imperfections.

### 3.4.2. Mechanical characteristics

The values of the mechanical characteristics of the wire which are established at an ambient temperature by the traction test indicated in point 4.1 must be higher than the minimum values shown in Table VII.

#### Table VII. Mechanical characteristics

Combined loading of breakage Combined loading of gapping at a proportionality of < 0.2% Stretching at breakage R (N/mm2) min 700 Rp0.2 (N/mm2) min 700 A50 (%) min 18

### 4. Tests and examinations

#### 4.1. Traction test

This test must be conducted on samples obtained directly from the wire and in accordance with the conditions indicated by the standards of each country.

## 4.2. 180° bending test

The test consists of bending the wire to 180° on a 2 mm diameter mandrel. After the test

the wire must not show any small cracks at the point where the bend occurs.

## 4.3. Micrographic examination of the structure

The examination is conducted on a cross-section of the wire (encased in sufficient resin) at a magnification of x 200 - x 500 after polishing and etching with 10% oxalic acid in accordance with the ASTM 262-70 standard or equivalent.

In practice you should observe a stainless structure with martensite bands; in any case no chrome carbon precipitates may be present on the grain boundaries (see the acceptable structure, in accordance with the ASTM standard already mentioned: "steep structure").

#### 5. Documents

For the product corresponding to these rules the following documents must be delivered by the manufacturer:

- certificate of conformity of the chemical composition;
- certificate of control of the mechanical characteristics and the results of the bending test and the micrographic examination.

### TECHNICAL SPECIFICATION FOR FENCING MASKS

## 1. Purpose

These technical specifications concern the shape, the dimensions, the methods of production of the essential constituent elements of protective fencing masks, as well as the technical quality of the materials intended for their manufacture.

### 2. General conditions

All the materials of which fencing masks are made and the corresponding manufacturing processes must ensure an excellent mechanical resistance, a high degree of visibility and comfort for the fencer and a sufficient resistance to wear and tear and aging.

### 3. Shape and dimensions of masks

The dimensions of the frontal grille depend on the dimensions of the mask. Those of the side grille must be as follows: the height corresponding to 3/4 that of the front grille; the width being between 10 and 12 cm.

- 4. The essential elements of the mask are:
- a) frontal grille protecting the face;
- b) lateral grille protecting the neck and the nape of the neck;
- c) strip for reinforcement and to connect the grilles;
- d) bibs.

The other parts, such as the interior protecting facings, padding, elastic bands and the safety

retaining devices, whose production is entrusted to the manufacturer, must entirely conform to the conditions required for their use.

In particular, the rear fixing device must ensure that the mask is located in the correct position on the fencer's head and that it remains in a perfect position, even after blows or shocks.

#### 4.1. Front and side mesh

The mesh must be made of woven material with a square aperture, with an opening of 1.9 mm, made entirely of round stainless steel wire CrNi 18-10 (the technical quality of the wire for which is addressed in Table V).

In the curved zone of the grille the presence of mesh with an opening greater in size than that specified is permissible, on condition that it does not exceed 2.1 mm. The frontal grille must form an interior angle of  $= 130^{\circ}$ , corresponding to the fold of the center line.

4.2. Junction of the frontal and lateral mesh to the reinforcement band. The joining of the frontal mesh to the lateral one, by the reinforcement band, can be

accomplished by a mechanical joining (for example metal wire stitching, use of rivets), or by solder.

In the case of solder, which in any case must be done using the usual techniques for stainless steel, the operation must be completed by a careful mechanical polishing of the soldered area, to eliminate slag and residues. The mesh must be entirely covered in paint with a polymer base. Any heat treatments to harden and stabilize the painting must be carried out at a temperature of = 400°C.

#### 4.3. Bibs

The bib must be formed from several layers of cloth firmly fixed to each other, of which at least one on the inside must be made of Kevlar fiber or a similar substance; in any case

the cloth so formed must ensure a high degree of resistance to penetration equal or greater than 1600 Newton, to be tested by the methods described in 3.1, below; it must also hinder the forming of stiff creases or the rolling up of the bib itself.

The bib must be fixed to the exterior of the grille starting from the reinforcement band onwards and extending as protection for the neck for a total height of the order of 10–12 cm.

#### 5. 5.

For each model and production series of masks, the manufacturer will send three examples to the SEMI Commission for testing that the mask conforms with the present specifications, as well as photocopies of the certificates delivered by the manufacturer of the mesh.

In the case of a positive result of this test, the manufacturer can place next to the manufacturing mark the following information: "Conforms with standard ... of the FIE" ("conforme à la norme ... de la FIE").

#### STANDARDS FOR THE MANUFACTURE OF CLOTHING

For the manufacture of fencing clothing it is obligatory to use material which is able to resist perforation by a force of at least 800 Newtons. This resistance must be verified by the tests defined in the following paragraphs.

#### 1. Generalities

The method which is the subject of this standard is intended to determine the resistance against perforation of cloth used to make up fencing uniforms.

The perforation load is defined as the maximum value of impact registered before the sample of cloth is perforated by the test probe: the load is expressed in Newtons or else in kilograms of force to one decimal place.

## 2. Methods of conducting the test

The test takes place using a high speed dynamometer (as, for example, the INSTROM 1273 apparatus) fitted with a moving test probe 3 mm long, with a square section, a pyramidal head and an angle at the tip of 120° (see Figure A.4, section A); this probe must be made of high speed or super high speed steel, with a length of 70 mm, of which at least 50 mm juts out from the holding device.

#### 2.1.1.

The travel of the point must be perpendicular to the surface of the cloth during the course of the test.

#### 2.1.2.

The speed of the probe during the test component of its travel must be more than 6 m/s.

2.2. The test must be conducted in a place where the temperature is 20–25°C and with a relative humidity of 50–55%.

### 2.3.

The samples for the test must be taken from a piece of cloth around 50 cm high, free of faults and obtained at random at a distance of at least 2 m from the ends.

The samples must be square in shape with sides of 14–15 cm and they must be fixed on a device with a double vice while leaving a section of 50 mm diameter free for the test.

In the case of fabrics made of several separated layers of cloth, a continuous seam must be sewn along the sides of the square of material which constitutes the sample.

## 2.5.

During the test the force applied by the probe must be registered under the proper conditions of temperature and humidity. The end of the scale for measuring the forces must not be more than 5000 Newton (with a tolerance of  $\pm$  5 Newton).

## 2.6.

For each cloth, at least three samples must be tested, taken at random from the piece of cloth.

3.

### Results

The following data must be shown on the certificate confirming that the test has been carried out:

- a) The name of the company applying, type and brand of cloth;
- b) The maximum force at the point of penetration for each sample and their average, and the comparative graphic traces of the test;
- c) The type of dynamometer used, the type and speed of the probe in the test component of its travel, and the conditions of the test (temperature and relative humidity).

After discussion the Medical Committee considers that the following ought to be considered as "parts that it is vital to protect"

#### — Above

The plastron, which is included in the jacket, must protect the neck under the bib (overlapping with this latter), the two hollows above and below he collar bone, the region surrounding the armpit of the weapon arm, and that covering the heart.

#### — Below

Protection included in the trousers must cover the abdomen, the groin and the genital organs (by means of a protective cup).

As far as the quality label is concerned, the Committee has established that it must be indelible, must be circular in shape with a diameter of 25 mm for the mask and 50 mm for the uniform, and must include the following data (see Figure A.7):

- the emblem of the manufacturer;
- the date (year and month) of manufacture;
- the FIE emblem.

On blades, the label must be 7 mm wide

## APPENDIX TO THE MATERIAL RULES

The installation of a clock and a system for showing the score are both obligatory for the homologation of scoring apparatuses; they must be visible to the spectators.

The apparatus registers when contact is established between the wires forming the circuit in the épée, thus completing the circuit.

**Timing** 

The apparatus must register only the first touch which is made. If the interval of time between two touches is less than 40 milliseconds (1/25th of a second), the apparatus must register a double touch (both signal lamps must light up simultaneously). When the interval is greater than 50 milliseconds (1/20th of a second) the apparatus must register only one touch (only one signal lamp is lit). The tolerance allowed for timing the apparatus is that between these two limits (1/25th and 1/20th of a second).

# Sensitivity

When the external resistance is normal, that is 10 ohms, the apparatus must register touches when these are made with a duration of contact of 2–10 milliseconds. With an exceptional external resistance of 100 ohms the apparatus must still register a touch, but without any specific duration of contact.

The apparatus must not register signals of less than 2 milliseconds duration.

## Non-registration

The apparatus must not register touches which are made on the earthed material (on the guard or on the conductive strip), even when there is a resistance of 100 ohms in the earth circuit.

## Visual signals

1.

Visual signals include at least two signal lamps on each side of the apparatus, so designed that if one lamp does not function it does not prevent the other from lighting up nor cause an excessive current through the latter.

2.

The signal lamps should give a red signal on one side of the apparatus and a green signal on the other.

3.

The apparatus should have a pilot light to show that it is switched on. This light should be dim and not colored.

4.

The apparatus may include lights which indicate shorts. These should be orange in color.

5.

The light-bulbs which show when touches are registered are usually covered with translucent shades. It must, however, be possible to remove these shades and use naked lights, when the light conditions in the locality make it desirable to do so (strong sunlight or, exceptionally, in the open air

### a) Principles

- 1. The apparatus works by contact between any uninsulated part of the sabre and the conductive surface of the opposing fencer's jacket, glove and mask.
- 2.

For touches made on these valid conductive surfaces, the apparatus shows a red light on one side and a green light on the other.

If the guard or blade of a fencer's sabre is in contact with the conductive surface of his own equipment (signaled by a yellow light), a valid touch made by that fencer must still register.

3.

The audible signal will consist of either one short ring or a continuous note lasting 1–2 seconds, simultaneous with the light signals. The sound will be the same for both sides of the apparatus.

4.

Touches made on non-conductive surfaces must not be signaled.

5.

The apparatus must be equipped with two yellow lamps, one on each side, which will indicate a contact between the guard or blade of a fencer's sabre and the conductive surface of his own equipment.

6.

The apparatus must be equipped with two white lamps, identical to those on a foil apparatus, which if permanently illuminated, accompanied by a sound signal, indicate any abnormal electrical change in circuits B and C of the fencer at fault.

7.

The apparatus must not signal a touch made by the blade whipping over to touch the opponent while in contact with his blade or guard.

8.

After a touch has been registered, a subsequent touch made by the other fencer will only be registered if it occurs within a maximum delay of 120 milliseconds ( $\pm$  10 ms of tolerance).

9.

When the two blades touch, all the other rules should be strictly applied.

10.

The SEMI Commission of the FIE reserves the right to change the rules governing the apparatus, either to simplify or to improve its performance.

- b) Sensitivity and regularity
- 1. The duration of contact during which a signal should be ensured should be 0.1–1 milliseconds. These times may be varied in the light of experience and of laboratory tests

carried out by the SEMI Commission.

An apparatus will be rejected if a touch can be registered with a duration of contact of less than 0.1 milliseconds (time subject to modification).

2.

The apparatus should allow an increase in the exterior resistance of the connections up to 100 ohms without any drawbacks.

3. Should a fault in the insulation, down to 0 ohms, cause a leakage of current between a

fencer's valid conductive surface and his weapon, the apparatus should still be capable of registering all touches exchanged. The insulation fault will be signaled by the illumination of the yellow lamp on the side of the fencer whose equipment is at fault when the resistance is 0–450 ohms.

The registering of a valid touch on the guard or blade of the fencer at fault will be allowed provided that the electrical resistance between the guard or the blade and the valid surface is less than 250 ohms.

4.

The apparatus should still function when the blades are in contact, or if there is contact between the blades and the guards, or between the two guards.

5. If the contact between the blade and the opponent's target takes place "through the blade," the apparatus:

will register the touch between 0 and 4 ms (+ 1 ms);

will prevent the touch being registered between 4 and 15 ms (+ 5 ms), on condition that the contact between the two blades is not interrupted more than a maximum of 10 times in the interval

- 6. Should there be a touch made by the whipping over of the blade which has not been signaled, whatever method has been used to prevent the signaling, after 15 ms ( $\pm$  5 ms) from the contact of the blade with the valid target (the time for the registering of the whip) and unless there has been another touch, the apparatus should allow the normal registering of any subsequent touches.
- 7. A break in the control circuit (defined as more than 250 ohms) for 3 ms  $\pm$  2 ms will be signaled by the illumination of the white lamp on the side of the fencer at fault.

## FENCERS PUBLICITY CODE

Advertising on any part of the scoring apparatus is not permitted

No fencer may be omitted from selection or from a sporting activity solely because he does not wish to take part in any advertising activity.

A patch designating the GHSFL high school which the fencer attends may be worn on the fencer's nonweapon arm

A private fencing club's patch may be worn on the fencer's non-weapon arm.

Fencers, faculty-sponsors, team members and coaches are not permitted to wear additional articles of clothing advertising private fencing clubs

Fencing clubs and companies associated with private fencing clubs may not place advertisements on fencers gear, scoring apparatus or signage within the venue

The GHSFL does not endorse any specific vendors or companies and will have no liability concerning vendors or companies. If a school invites a vendor to a GHSFL activity, practice or tournament, that school accepts liability for services and products provided by the vendor

At all GHSFL competitions, uniform team socks designating the GHSFL high school which the fencer attends must be worn by all members of that high school team.

If, upon reporting to the strip at the beginning of each bout, a fencer is not wearing their school's team socks, the referee will issue a red card.

Team socks for each GHSFL school must have colors or a distinct design representing that school. All schools must submit sock colors/designs to the GHSFL Board prior to the start of the season in order to confirm that the proposed design/color is acceptable and not in use by an existing GHSFL school

#### MANUFACTURERS MARK

The mark is the name or badge which identifies the origin, the manufacturer or the seller of a particular piece of the fencer's equipment.

As soon as the mark exceeds the normal or authorized dimensions, it becomes an advertisement and comes under the jurisdiction of the regulation below

- 1. The articles of the fencers' equipment may carry the following visible marks:
- a) Mask One mark, maximum size 6.0 cm x 5.5 cm, on the rear of the spring;
- b) Jacket One mark at the bottom of the jacket on the hip on the side of the non-sword arm, maximum size 4.5 cm x 2 cm;
- c) Knickers One mark at the bottom of the leg of the knickers, on one side only, maximum size 4.5 cm x 2 cm;
- d) Socks One mark on each sock, maximum size 4.5 cm x 2 cm;
- e) Shoes The name of the brand on each shoe, maximum size 4.5 cm x 2 cm or the normal badge or insignia (e.g. bands);
- f) Gloves No mark;
- g) Weapon No mark visible from any distance.
- 2. The article of equipment may not have any distinctive mark (band, design, border, etc.) other than those authorized above.
- 3. Ancillary equipment may carry the following manufacturer's marks:
- a) Tracksuit The normal mark as it appears on all articles by the same manufacturer (e.g. bands for Adidas); one badge, maximum size 10 cm x 10 cm, on the left-hand side of the chest or the name, maximum size 10 cm x 4 cm, on

the left-hand side of the chest

- b) Fencing bag No limitation
- c) Sports bag No limitation

#### Definition

- a) Advertising worn or carried refers to any name or badge other than the mark of the manufacturer or seller of the equipment in question (cf. p.9) which appears on a fencer's main equipment or ancillary equipment.
- b) A mark which is larger than the sizes which are usual or laid down above constitutes advertising.
- c) All advertisements for alcoholic drinks, tobacco and any others against the sporting ethos are forbidden.
- d) As far as possible, the organizers must make clear, in the conditions of entry for the competition, the way in which advertising material worn or carried by the fencers will be permitted.

#### **GLOSSARY**

Tournament - the bouts (individual competitions) or matches (team competitions) required to determine the winner of the event. Tournaments are divided by gender.

Fencing time - the time required to perform one simple fencing action.

Offensive actions - the attack, the riposte and the counter-riposte.

Attack - is the initial offensive action made by extending the arm and continuously threatening the opponent's target, preceding the launching of the lunge or flèche

Riposte - the offensive action made by the fencer who has parried the attack.

Counter-riposte - the offensive action made by the fencer who has parried the riposte.

## **Explanation of the attack**

The action is simple when it is executed in one movement and is:

- either direct (in the same line),
- or indirect (in another line).

The action is compound when it is executed in several movements.

The riposte may be immediate or delayed, depending on what action takes place and the speed at which it is carried out.

Ripostes are:

Simple, direct

Direct riposte: a riposte which touches the opponent without leaving the line in

which the parry was made.

Riposte along the blade: a riposte which touches the opponent by grazing along the blade after the parry.

# Simple, indirect

Riposte by disengagement: a riposte which touches the opponent in the opposite line to that in which the parry was formed (by passing under the opponent's blade if the parry was formed in the high line, and over the blade if the parry was formed in the low line).

Riposte with a coupé: a riposte which touches the opponent in the opposite line to that in which the parry was formed (the blade always passing over the opponent's point).

## Compound

Riposte with a doublé: a riposte which touches the opponent in the opposite line to that in which the parry was formed, but after having described a complete circle around the opponent's blade.

Riposte with a one—two: a riposte which touches the opponent in the same line as that in which the parry was formed but after the blade has first been into the opposite line, by passing under the opponent's blade.

#### Counter-attacks

Counter-attacks are offensive or offensive—defensive actions made during the offensive action of the opponent.

The stop hit

A counter-attack made into an attack.

The stop hit made with opposition

A counter-attack made while closing the line in which the opponent's attack will be completed

The stop hit made within a period of fencing time, i.e., "in time"

### Remise

A simple and immediate offensive action which follows the original attack, without withdrawing the arm, after the opponent has parried or retreated, when the latter has either quitted contact with the blade without riposting or has made a riposte which is delayed, indirect or compound.

### Redoublement

A new action, either simple or compound, made against an opponent who has parried without riposting or who has merely avoided the first action by retreating or displacing the target.

The reprise of the attack

A new attack executed immediately after a return to the on-guard position.

Counter-time - Every action made by the attacker against a stop hit made by his opponent.

Parry - the defensive action made with the weapon to prevent an offensive action arriving.

### **Defensive actions**

Defensive actions - the parries.

Parries are simple, direct, when they are made in the same line as the attack.

They are circular (counter-parries) when they are made in the opposite line to that of the attack.

### The Point in Line Position

The point in line position is a specific position in which the fencer's sword arm is kept straight and the point of his weapon continually threatens his opponent's valid target

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