

STATUS OF BOXING IN THE
PHYSICAL EDUCATION PROGRAM
OF OREGON HIGH SCHOOLS

by

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CHAPTER I

THE STATUS OF BOXING IN THE PHYSICAL EDUCATION PROGRAM
OF OREGON HIGH SCHOOLS

CHAPTER I
INTRODUCTION

Up to the present time there has been a great deal of literature published emphasizing the hazards and drawbacks of boxing. Because of these claims, the majority of high schools have hesitated to include boxing among their athletic activities. It is the belief of many school administrators, the medical profession, and physical educators, however, that boxing can contribute a great deal to the athletic program and to the boys who participate in it. It is hoped, therefore, that the material presented in this study will aid those persons who are confronted with the duties of building a physical education program and have to consider the inclusion or exclusion of boxing and the reasons for their decisions.

During the period of World War II, the literature pertaining to boxing as an activity in the physical education programs of our schools demanded and received great emphasis due to the sport's contribution as a conditioner of young men for duty in the armed forces. The schools then felt that the American youth needed a more vigorous training program to prepare him for the duties he was to

perform with efficiency while in combat. Boxing contributed toward this need. The question as to whether this type of program is necessary during time of peace, however, is not settled despite the merits accrued by boxing during the national crisis, World War II. The issues creating this controversy can be settled only by factual research on the part of medical men and educators who will study boxing from an educational aspect in place of the vocational view.

STATEMENT OF THE PROBLEM: The purpose of the writer in making this study was to determine the status of boxing in the physical education programs of Oregon high schools and present suggestions relative to guidance of those persons who are responsible for physical education programs including or excluding boxing in their programs.

PURPOSE OF THE STUDY: The purpose of this study was to procure the following information:

1. To find the place which boxing is actually occupying in the physical education programs of Oregon high schools.
2. To show the degree of satisfaction which boxing is contributing as a physical activity in the high school program.
3. To present reasons why boxing is not included as a physical activity in some high school programs.
4. To present material that may be useful for those who are responsible for the organization and administration of the physical education programs.

TERMINOLOGY: This study will treat the words

"interscholastic" as meaning competition between pupils in different high schools, "intramural" as applying to competition within a high school; "smokers" will be used to designate boxing exhibitions for entertainment or raising funds in connection with the general public.

The word "club" is used to designate private organizations which present boxing as an activity in their amateur athletic programs.

The use of the wording, "to button the fingers," is a method of wrapping the hands in which the wraps are drawn between the fingers to make the knuckles more prominent. This will sharpen the impact of the blow.

"Body-contact" and "combative" sports will be used as those activities known as football, wrestling, soccer, speedball, tumbling, and boxing.

SOURCES OF DATA: The data for this study were secured from two courses: (1) from questionnaires circulated among the 225 senior high schools of Oregon; and (2) from theses, research publications, letters, pamphlets, and texts in this and related areas.

METHODS USED IN SECURING DATA: First a list of the men teaching physical education in the secondary schools of Oregon for the current year was secured from the Office of the State Superintendent of Public Instruction. A questionnaire (Appendix A) was sent to one of the physical education

instructors in each school on the list. A form letter (Appendix A) was enclosed, stating the problem of the study. This study was based on returned blanks from 129 teachers of physical education for boys in the high schools of Oregon. In response to the first set of letters, 96, or 42.5 per cent, were returned. Follow-up post cards (Appendix A) were sent to the remaining 129 instructors. As a result of these cards, 33 more replies were received, making a total of 129 returned questionnaires, or a return of 57.3 per cent.

LIMITATIONS OF THIS STUDY: The study is limited by the following factors:

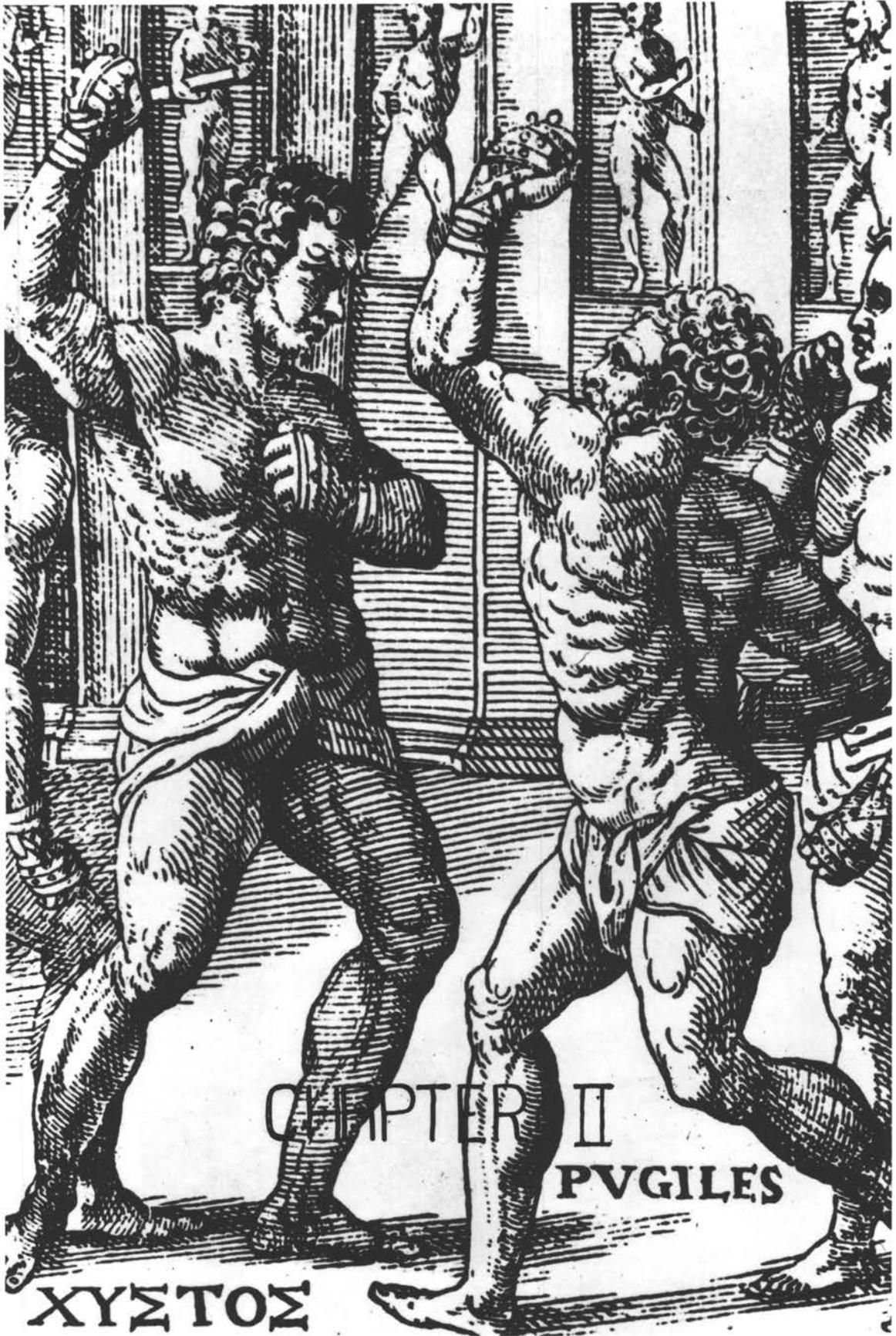
1. The procuring of specific data by the questionnaire method in comparison with personal observation in Oregon high schools.
2. This study has been confined to those high schools in Oregon which returned completed questionnaires.
3. Unavailability of extensive research on this specific activity in high schools.
4. Research was taken from publications by educators and medical men with profound interest in educational outcomes.
5. Some authorities encompassed all boxing into the professional, A.A.U., and Golden Gloves classification rather than educational programs in their research.
6. Inability to find the specific ways in which after-school boxing was presented, and whether or not it was conducted for smokers, carnivals,

student interest solely, or sponsored by community voluntary agencies in cooperation with the school.

NEED FOR THE STUDY: A study of this nature may contribute toward a sound program of physical education and as an aid to those persons who are primarily concerned in promoting the welfare of our Oregon youth. There has been no other study known to the writer, after checking all available sources, on the status of boxing in Oregon high schools.

The considerable amount of literature and research published on boxing during and after World War II has demonstrated the need for further research and more careful study because of the controversy as to whether the injuries incurred outweigh the educational benefits derived from boxing. The writer hopes this study will initiate further study in this area.

The study was undertaken after the author had had teaching and competitive experience in boxing upon both an amateur and collegiate level for a period of 16 years. This period of experience, combined with the personal benefits derived by the author, has created the interest to initiate this study to find the place that the sport has as an activity in the physical education programs of Oregon high schools.



CHAPTER II
PUGILES

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CHAPTER II

HISTORICAL BACKGROUND

Boxing is a form of pugilism, a word derived from the Latin "pugil" meaning "one who fights with his fists." The sport is the scientific phase of pugilism, and did not become part of boxing until it was introduced by an Italian priest in the thirteenth century A. D. The term "boxing" means "boxing up" the attack of a foeman.

It was assumed for a long period of time that the ancient Romans and Greeks were the first to feature boxing as a sport, but certain slabs and figurines found in a temple of Khafaje near Bagdad, in Mesopotamia, by Dr. E. A. Speiser and associates, indicate that man fought with his fists and wrestled centuries before the Greeks and Romans. Dr. Speiser headed an exploration group sent out nearly a decade ago which was sponsored by the University of Pennsylvania and the American Schools of Oriental Research.

One of the stone slabs showed that the hands of the pugilists were well wrapped in leather, the earliest cestus. In the Roman language, "cestus" really meant belt, but came to be used when leather was used to girdle anything, including the hands.

There appears to have been a lapse in the pugilistic arts from the Mesopotamian era until about 1750 B. C., when the practice was revived in a minor way. About

900 B. C. the most brutal features of pugilism were sponsored by Theseus, son of the Grecian monarch Aegus, to provide battles which satisfied his craving for blood and death. He invented leather thongs studded with metal spikes which after a few blows crushed the face of an opponent and usually ended the battle--and the warrior.

The Greeks were the first to exploit fighting with the fists as a sport. When the Romans conquered Greece, they took a great fancy to this form of entertainment. They developed their own fistic warriors, sent them against the best in Greece, and usually won. The Romans then staged bouts among their own countrymen, made radical rule changes, and required that the battling be done from a standing position rather than sitting, as it was previously conducted.

"Cestus warfare" was popular through the centuries in Greece and Rome, but finally a less "blood-and-death loving" king came to rule, who saw no reason why the youthful stalwarts should be killed off just to provide an extra thrill for the spectators. He banned the cestus and told the gentlemen they would have to use bare fists, or cease battling. Fist-fighting was eventually barred.

At the dawn of the Christian era, interest in pugilism lapsed for many centuries. If it existed at all during the Middle Ages, it was as an amateur and local sport, or just

brawling.

England started the sport again in the seventeenth century, but it was chiefly of the "rough and tumble" style, first on an amateur, then on a professional basis. Later, both existed side by side. The technique through those years called for throwing a man to the ground with such force as to bounce the energy from him. That usually continued for hours, and such bouts, due to their length and the long drawn-out climax, decreased in favor.

James Figg lives in history as one of England's great athletes. He was an originator of bare-knuckle fighting, largely because he realized the value of a hard blow with the fist in contrast with wrestling style. Figg was the dominating authority on boxing while he lived. His basic rule was that the men must continue battling until there was a definite winner or loser. No rest periods were allowed. Figg's idea prevailed until 1743, when Jack Broughton created radical changes in answer to demands to lessen the brutality of pugilism.

Broughton drew up what became known as the "London Prize Ring Rules" (Appendix B), and introduced them at a bout on August 10, 1743. The Broughton rules governed pugilism for a great many years, until it was decided to elaborate on them and to clarify some of the points which did not seem clear. This led to the creation of the "Revised

London Prize Ring Rules" which were the authority for bare-knuckle fighting from the middle of the eighteenth century until the last bare-knuckle championship fight on July 8, 1889, between John L. Sullivan and Jake Kilrain.

For about 100 years the London Prize Ring Rules were the only ones known to the sport. Then, because some tender-hearted person decided that "pugilism is barbarous," the Marquis of Queensberry drafted his famous rules (Appendix B). Working with Arthur Chambers, an English lightweight who later fought in the United States, the Marquis framed the rules which bear his name, and presented them to the royalty of London during a tournament in 1865. It was not, however, until 1872 at a tournament in London that the rules were followed in toto, all contestants wearing gloves, fighting three minute rounds, with wrestling, throwing, and gouging barred.

The men of 1872 fought for trophies, the first time such awards had been given. Previously, all battles had been for financial prizes or for side-bets, or to settle grudges. Furthermore, the 1872 tournament classified the fighters, i.e., a lightweight was 140 pounds or less, a middleweight 158 or less, and all over 158 pounds comprised the heavyweight class. Prior to that time, fighters had not been classified into weight groups. The contests usually were limited to the big men--those from 160 pounds

up. The smaller men as a rule did not go in for battling except when there was a grudge and the participants were of comparable sizes.

Pugilistic encounters, as sport, were not favored in the early days of America. The few which had been staged before John L. Sullivan popularized the sport by using boxing gloves were with bare fists under London Prize Ring Rules. Such a form of "sport" was barred, and the police were alert to make arrests whenever they heard of any such bouts being planned. As a consequence, such battles generally took place in isolated spots before small crowds. Even the adoption of the Queensberry rules did not arouse American interest in any form of fist-fighting as a sport for quite a few years.

In September, 1892, John L. Sullivan met James J. Corbett in New Orleans with gloves under the Queensberry rules. The bare-knuckle crown was not at stake. The fight, won by Corbett, was the first to determine the heavyweight championship under Marquis of Queensberry rules. Corbett knocked out Sullivan in the 21st round, and thus became the first heavyweight champion under rules requiring gloves and three-minute rounds.

At the time, boxing was not legal in New Orleans, but since bare fists had not been used, it was tolerated. It also was allowed in California and other centers where the

contest involved only bare fists and London Prize Ring Rules. The first state to permit boxing was New York, which sponsored the sport in 1896 and fully legalized it through the Walker boxing law in 1915. Later that year Wisconsin also legalized the sport. The Wisconsin law provided for ten round, no decision bouts. It became the model for many other states and was widely copied. Forty-two states and all our possessions gradually legalized boxing, with each state drawing up its own set of rules that must be adhered to if boxers were to perform in that state.

The greatest impetus to amateur boxing in the United States was given by World War I. The returning home of soldiers from war camps, all trained in boxing, caused a great demand for the sport. Boxing experienced its greatest era between 1915 and 1930.

Annual amateur championships have been held without interruption since 1888, when the Amateur Athletic Union was formed. This Union has exercised jurisdiction over amateur boxing since that time. There are approximately 16,500 registered boxers in 39 district associations of the Union. A forerunner of this Union was the Amateur Boxing Association of England, formed in 1880 in the belief that boxing was too good to be used solely as a means of financial gain.

The Chicago Tribune has been sponsoring amateur boxing since 1923, with the aid of other newspapers throughout the United States and Hawaii, to provide an opportunity for boys to express themselves, to build their bodies, and above all, to build character. In 1931 international competition was initiated. Each year the champions of some foreign country are brought over to fight members of the United States team. This continued until World War II, when it was interrupted by the national emergency. Since the end of the fighting, boxing has regained its former popularity.

Boxing first found its way into our educational systems through the medium of intramural athletics. Harvard University sponsored intramural boxing as early as 1880. In 1919 and after the first world war, many of the former service men went into our colleges to continue their educations. Their interest in boxing was soon transferred from camps to the college gymnasium, and intercollegiate boxing increased greatly in interest. Intercollegiate boxing on a large scale can be said to have started in 1919, when a boxing team from Pennsylvania State College met another from the University of Pennsylvania. The United States Naval Academy began to sponsor boxing as a sport in 1920. By 1923, intercollegiate boxing was a well-developed sport in the eastern states and in New England. The first intercollegiate boxing tournament was held at Pennsylvania State

College in 1924.

In 1932 the Western Intercollegiate Boxing Conference, consisting of Pittsburgh University, Carnegie Institute of Technology, Washington and Jefferson College, Bucknell, Temple, Duquesne, and West Virginia Universities, was formed. The University of Virginia introduced boxing to the South in 1922; Louisiana State and the University of Florida introduced boxing to the Far South, and in the mid-west, Kansas State College and the University of Wisconsin have done much in behalf of popularizing intercollegiate boxing and bringing it to a high degree of skill as a sport. On the West Coast, boxing has flourished in colleges and universities, and is rapidly expanding. At the present time about 100 colleges in the United States have intercollegiate boxing, and about the same number have boxing on an intramural basis.

At the present time, boxing in high schools is in an era of expansion and is rapidly finding a place in the sports curriculum. Although boxing has been legislated against by many high school athletic associations, its growth has been steady and the demand for the sport by school administrators has been increasing. In such states as Louisiana, Washington, and Idaho, statewide high school boxing tournaments are conducted each year. In Wisconsin and Oregon the sport is rapidly developing.

High school boxing is beginning to be as much a part of the physical education program as other major sports. This has come about through added safety factors and rules enforced by the National Intercollegiate Boxing Coaches Association. The trend is toward the use of certified officials only, boxing helmets in competition, specialized training for coaches, required physical examinations before and after competitions, proper matching by age, weight, experience, ability, and height, along with required uniforms and proper supervision. The equipment of the uniform consists of thumbless gloves, wrapped hands, protective-cup supporters, mouthpieces, headgears, and protective ointment on the face. With the enforcement of these measures, high school boxing is ensuring its place in the school program.



CHAPTER III

CHAPTER III

SURVEY OF RELATED STUDIES

The controversial issues up to the present time concerning the actual advantages and disadvantages of boxing as an activity in the physical education program have been so great that the writer felt the need to present these issues concerning this activity. The reader should attempt to keep in mind throughout this chapter that much of our wartime philosophy and objectives of boxing are not the same as those stressed during peacetime.

In 1945 Dr. Franz Schuck (22, p.1), Federal Security Agency research specialist for the Committee on Physical Fitness, defined the advantages and disadvantages of boxing as being dual in nature:

In recent years the question has been raised whether boxing is a suitable sports activity in American schools and colleges. Those who doubt it put forward that (a) the educational value of boxing is disputable, in view of the rough or even brutal features which are connected with this sport; (b) the brain injuries caused by boxing are too serious to be risked in the education of American youth.

This attack, however, met an equally stiff defense. The advocates of boxing claim that boxing has become a traditional sport in this country, too dear to men and boys to be dropped without compelling reasons. Such reasons, they state, do not exist, because (a) they think highly of the educational values as a sport and maintain that undesirable features can be prevented by competent supervision; (b) brain injuries with lasting harm are no more frequent in school boxing than are grave injuries in other American sports. Through proper organization

the risk can be reduced to a minimum which does not jeopardize American youth.

Thus all disputes about boxing in schools and colleges contain (a) an educational, and (b) a medical angle.

The educational side alone would not be decisive and, even less, imperative. It is not American usage to establish 'musts' or 'must nots' in matters which are disputed by sportsmen and educators. On this basis, the outcome would be individual. Some educational institutions would incorporate boxing into their programs, others would not. This would provide the opportunity for comparing results.

The medical side, however, is very different. If school boxing is dangerous, then nobody, educator or sportsman, will advocate it in education. The best educational consideration cannot make up for an unreasonable risk of physical and mental health.

The noted neuro-surgeon Schuck (22, p.2) in his extensive study on brain injuries in boxing asked the question, "Does the boxing class in school and college imply the threat of serious brain injuries and lasting harm to structure and function of the brain?" He dealt with the question on the basis of medical considerations in this manner by stating:

The head injuries caused by boxing belong to the so-called 'blunt' head injuries. An impact hits the skull and is transmitted to its contents, the brain. In doing so it may not cause visible anatomical harm to the brain, may or may not cause functional harm to the brain, or even death.

These three consequences are three very different things. They are kept apart in medical thinking, and should be kept apart by the physical educator, when he thinks of head injuries, in boxing and in sports in general.

Schuck (22, p.2) indicates that recent publications confuse the question further by showing pictures of brain injuries that are not related to boxing altogether.

In many publications on head injuries which are written for physical educators and sports leaders, pictures are shown with all kinds of destruction of the brain and bleeding inside the skull. Individually these pictures are correct; they refer, however, only to a small percentage of the blunt head injuries in general (and most of them have not been taken from head injuries in boxing).

Yet, this is the tenor of recent publications. From the medical point of view, they are somewhat puzzling. For they conscientiously report individual cases from practically all chapters of traumatic brain surgery; skull fractures, contusions and lacerations of the brain, coma and symptoms of intracranial pressure--without reference to the frequency of these events in different kinds of accidents. (Yet many of them are typical in automobile accidents, while they are very rare in boxing and practically non-existent in school boxing).

The neuro-surgeon (22, p.12) feels that the educational profession has been unduly aroused in regard to the hazards involved in boxing, as a vocation, rather than boxing as an activity in the physical education program of the schools. He expresses his feelings as follows:

....for it may well be that the educational profession has been alarmed by a newly discovered pathological picture which stems from a different field; from professional boxing and its long known vocational dangers. For the same reason it would be important that in the future the attending physician and, if possible, the consulting neurologist or brain surgeon publish every case seriously injured in school boxing, not for the sake of dispute but for rounding out the picture.

The doctor points out the fact that the school's

responsibility lies in strict enforcement of all rules de-emphasizing head blows, and adoption of safety factors to prevent head injuries in order to insure the place of boxing in the school program.

For protection, the school has, obviously, two tasks:

- (1) To avoid 'accidents' as far as possible.
- (2) To prevent punchdrunkenness altogether, even in its earliest stages.

For avoidance of accidents, a well-padded floor is more important than the boxing technique itself because, at least from school experience, the fall to a hard floor has caused more hospital admissions than the boxing.

There is no more reason for boxing with a reckless technique than for fencing with unguarded foils; and the fact that the 'public' prefers 'fight' and 'blood' need not influence the educator nor impair the discipline which he is able to keep among his charges.

Schuck (22, p.12) stated, "With these precautions adhered to, school boxing seems sufficiently safe from the medical point of view." He made this statement as his conclusion to a lengthy study made involving all types of boxing, such as professional, Golden Gloves, A.A.U., intercollegiate and high school. His findings and research were taken from some of the foremost authorities in the field of brain injuries in boxing.

Dr. A. H. Steinhaus (26, p.36) inferred in his recent expose about all types of boxing that no fighter escapes the inevitable brain injury. He said in his most recent article that, "The more a man boxes, the worse his condition

becomes. Sixty out of every hundred boxers suffer sufficient brain injury to slow them up noticeably. Five out of every hundred become out-and-out punchdrunks." Boxing is claimed by the author of this article to be the only sport in which punchdrunkenness occurs.

He requested in his writings that all educational institutions, churches, clubs, and private organizations abolish boxing from their activities. This trend is supported by results of a questionnaire survey of leading physical educators, administrators, national physical education associations, and every doctor who has studied the sport with serious intent.

He continues his biased convictions by stating that, "It does seem utterly contradictory, however, for our civilization to spend billions of dollars and untold effort on education to make a man use his brain to the best advantage and then teach him the one sport that wrecks his thinking ability."

Dr. Steinhaus (26, p.39) supports his present position by referring to the studies of Dr. Ernst Jokl, one of the world's foremost living authorities on brain injuries, when he related Jokl's findings as follows:

There is no evidence that boxing is a particularly valuable method of developing character, determination and personality. On the contrary, there can be no doubt that boxing affords an opportunity to many anti-social individuals to indulge in activities which are

condemned normally by society. Refusal to realize the dangers of boxing is responsible for spoiling many a boxer's life. Boxing often exerts a brutalizing influence even on the spectators and appeals to the lowest human instincts.

The recent recommendations by the National Inter-collegiate Boxing Coaches Association (18, p.41) pointed out that the value of boxing proved itself in the conditioning of the men in our armed forces. This group feels that the aim of boxing is the same today as that during the war years--the development of qualities such as courage, self-reliance, aggressiveness, coordination, and cool thinking under stress. The group of coaches and three medical men, members of the board, offer this statement (18, p.41):

In urging the widespread adoption of this splendid sport by the high schools, the NCAA Boxing Coaches Association is only too well aware of the many misconceptions and unfortunate practices which have clouded its purpose and hampered its aim in the past. Boxing, when conducted intelligently under proper leadership, is one of the finest all-round sports on any athletic program.

This group of top boxing coaches stressed their points further when they expressed their belief that this sport would fit into the program of any school whose theme was the preparation of youth for life adjustment. They believed that combative sports and physical fitness should be as much a part of the curriculum as required academic subjects. They emphasized their stand by saying that, "The lessons learned and the time lost in the early months of

the past war through lack of such a program in the past should bring this dream into reality."

Boxing in high schools, according to this association, has been a thriving success for the past five years in the states of Wisconsin, Louisiana, Idaho, and Washington. These schools have been under close observation by the National Intercollegiate Boxing Coaches Association during their pioneer stages. The association now feels that they are ready to sanction such programs for all high schools as a result of the successful experiments made in the above-named states.

A recent study by Meyers (16, p.1) evaluating boxing as a sports activity in institutions of higher learning disclosed that of the 620 institutions returning his questionnaire, 42 per cent sponsored boxing during the academic year 1948-49 in one or more phases of the physical education program. These phases consisted of activity classes, intramurals, and intercollegiate competition. In his study (16, p.1) he stated, "Fifty-nine institutions conducted intercollegiate boxing, and the majority of schools reporting offered boxing as an elective sport in the physical education class program." The physical education administrators and health service directors of the responding schools felt that boxing was both controllable and desirable in their programs. These administrators and

directors showed preference for having the sport as a part of the regular physical education program rather than on an intramural or intercollegiate status.

An analysis of his findings is shown in Tables I and II, the figures and the per cents being based on the 620 returned questionnaires.

TABLE I*
Boxing in Colleges and Universities

	Physical Education Class Program		Intramural Program		Inter-Collegiate Program		Total Reporting	
	Num-ber	Per Cent	Num-ber	Per Cent	Num-ber	Per Cent	Num-ber	Per Cent
Institutions sponsoring boxing, 1948-49.	228	36.8	123	19.8	59	9.5	263	42.4
Institutions dropped boxing in past decade..	48	7.7	54	8.7	41	6.6	**62	10.0
Institutions without any boxing in past decade.....	344	55.5	443	71.5	520	83.9	295	47.6
Total.....	620	100.0	620	100.0	620	100.0	620	100.0

* Taken from TABLE I in Meyers (16, p.3)

**This figure includes only those institutions that have discontinued all boxing.

Table I of this survey (16, p.3) showed 10 per cent of the replying schools discontinued boxing within the past decade while an additional 8 per cent dropped the activity in part. The plurality of reasons, as found in the study,

for dropping boxing were categorized as complicating factors attributable to the nature of the activity, such as lack of suitable facilities, student interest, improper supervision and other activities more worthwhile.

TABLE II*

Incidence of Injuries and Knockouts in Boxing During
Academic Year 1948-49

Program	Number of Partici- pants	Injuries		Knockouts		Number of Insti- tutions
		Num- ber	Per Cent	Num- ber	Per Cent	
Physical education class program only.	2477	7	.3	8	.3	34
Including competitive boxing.	7058	39	1.3	179	2.6	86
Total	9535	96	1.0	187	2.0	120

*From TABLE XVI in Meyers (16, p.3)

The above table shows the relatively small percentage of injuries incurred in comparison with the large number of participants. The knockouts are a small minority of the number of participants involved which may be attributed to the type of instruction stressing boxing technique, skill, and good sportsmanship, as compared to instruction demanding showmanship and undisputed victory. Proper supervision and handling of these contests may have contributed to this low incidence of injuries and knockouts.

In this study Meyers (16, p.2) gave his evaluation as

follows:

.....the educational value of boxing is made in light of the criteria concerning physical and organic development, social and moral development, psychological development, development of physical skills, contribution to educational objectives and administrative feasibility. Boxing ranks in the middle one-third of all physical education activities in an all-round contribution to the established criteria. Given educational value, any activity must meet the foremost consideration--promote health of students--to be included in an educational program. Competitive boxing, as commonly conducted, is a questionable activity in light of this health stipulation and rates poor in comparison with all activities. Instructional boxing without competition ranks in the middle one-third of physical education activities.

An extensive study was made in 1940 at the University of Illinois by Kenney, Thacker and Gebhart (13, p.81). The procedure they followed was sending a questionnaire to outstanding neurologists, psychiatrists, pathologists, and coroners throughout the United States. They also contacted the athletic directors and health service departments of the larger colleges and universities by the questionnaire method. Each group of these specialists was sent a separate type of questionnaire.

This research group said, "This study was made in an attempt to discover whether or not boxing in schools and colleges should be encouraged or discouraged. An attempt was made to consider fairly both sides of the question."

The questions sent to the specialists were worded in such a way as to bring to light the actual dangers of

boxing that had been observed by these men.

Analyses of their findings are shown in Tables III, IV, V, and VI.

TABLE III*

Opinions of the Athletic Directors in Regard to Boxing

	Yes	Per Cent	Yes, with Reservations	Per Cent	No	Per Cent	Total Reporting
Should boxing be an intercollegiate sport?	14	21.5	18	27.8	33	50.7	65
Should boxing be an intramural sport?	29	44.6	21	32.3	15	23.	65
Should boxing be a class activity in physical education?	41	63.	17	26.1	7	10.7	65

* Taken from TABLE II in Kenney, Thacker and Gebhart (13, p.83)

Table III points out that half of the athletic directors were opposed to boxing as an intercollegiate sport, while half were in favor of it either wholly or with reservations. The majority were definitely in accord to have boxing as a physical education class activity. The directors sanctioned boxing as a competitive sport in intramurals with or without reservations by 76.9 per cent to 23 per cent, or more than three to one.

TABLE IV*

Opinions of Health Service Directors in Regard to Boxing

	Do you feel boxing a hygienic activity for college students?	Do you think boxing an appropriate sport for high school boys?
Yes	16	9
Per Cent	21.7	14.5
Yes, with Reservations	20	11
Per Cent	27	17.7
No	31	36
Per Cent	41	58
Doubtful	7	6
Per Cent	9.4	9.6
Total Replying	74	62

* Adapted from TABLE II of Kenney, Thacker, and Gebhart (13, p.84).

In Table IV the health service directors were in accord as to the advisability of boxing in the high school with 58 per cent answering "no." There was no distinction shown among the attitudes toward intercollegiate, intramural, or physical education class boxing. Many of the directors, about 49 per cent, showed favoritism toward boxing as a hygienic activity, while 41 per cent were against the activity.

TABLE V*

Responses from Questionnaires Sent to Forty-six Outstanding
Neurologists and Psychiatrists

	Per Cent Yes	Per Cent No	Per Cent No Knowledge	Per Cent Doubtful
1. Have you had any cases of physical or mental impairment that were directly traceable to participation in boxing?	33.3	66.7		
2. Have you had any cases of amnesia?	16.6	83.4		
3. Have you had any deaths due to boxing?				
4. Do you feel that boxing is a hygienic activity for boys of college age?	57.1	21.4	11.9	9.5
5. Can repeated blows on the head over a period of two to four years cause a gradual change in mental pattern, etc., of the individual?	76.1	2.3	7.9	14.2

*Taken from TABLE VII of Kenney, Thacker and Gebhart, (13, p.86).

Table V gives a picture of what the medical specialists believe from their association with boxing. The results are not too enlightening when one considers that these doctors dealt with all types of boxers, such as professional, amateur, college, and high school contestants.

One-third of the specialists have treated patients whose injuries were attributed to boxing, yet other patients were treated whose mental impairment was not directly traceable to boxing despite their previous boxing experience.

The majority of the doctors fully agreed that exposure to repeated blows to the head will gradually cause mental disabilities, yet only 21.4 per cent disapproved of boxing from a hygienic standpoint. Their beliefs may be that college boxing can be controlled so as to prevent brain injuries, accounting for their apparent inconsistency.

TABLE VI*

Reasons Given why Boxing is Not or Should Not be Sponsored, as Reported
by Eighty Athletic and Health Service Directors

	(38) Athletic Direc- tors	(42) Health Service Direc- tors	Total	Per Cent
Injuries (dangers outweigh advantages)....	11	9	20	25
Hard to control crowds, undesirable spectators, etc.....	8	6	24	17.5
Insufficient interest of student body.....	6	7	13	16.2
Other schools quitting or not sponsoring boxing makes it hard to schedule meets..	8	5	13	16.2
Does not lend itself to intercollegiate competition; too difficult to control...	4	7	11	13.7
Surest way of winning is by knockout; only sport which approves of deliberate punching of opponent's head.....	4	6	10	12.5
Faculty opposes.....	8	1	9	11.2
Financial reasons.....	5	3	8	10
Hard to match students of equal ability; weight not safe factor.....	4	3	7	8.5
Other sports same benefits without such dangers.....	4	3	7	8.5
No value seen in competition with other schools.....	3	2	5	6.2
Lack of adequate instruction.....	3	2	5	6.2
Adaption of professional sport to college is undesirable.....	2	3	5	6.2
Outstanding boys soon have weight to them- selves and others lose interest.....	3		3	3.7
"Taker" suffers most.....	2	1	3	3.7
Lack of facilities.....		2	2	2.5
Managers hound good boys to turn "pro"....	2		2	2.5
Rules do not adequately cover all situa- tions; good officials hard to find; creates ill feeling.....	2		2	2.5
More humiliating to loser if knockout.....	2		2	2.5
Danger of engendering negative values as fear, hate, inferiority, bullying, etc..	2		2	2.5

*Adapted from TABLE VIII of Kenney, Thacker and Gebhart (13, p.87).

The picture presented in Table VI gives numerous reasons for the difficulty boxing presents from the organization and administration outlook. The foremost reason mentioned is the same as that presented in other related studies--that the danger of the sport outweighs its advantages. The directors intimate that the undesirable elements associated with boxing by far outweigh the advantages claimed by other authorities.

Kenney, Thacker and Gebhart (13, p.92) as a committee in this extensive study cited their conclusions as follows:

1. The objective of all offensive maneuvers in boxing is to injure an opponent. The more efficiently an offensive is executed, the greater the injury incurred.
2. The type of injuries most common are insidious in nature and in many cases not recognized by either participants or coaches. The effects of head blows are cumulative and are not recognized in early states. Knockouts are not recorded as injuries in this sport.
3. Contests of intramural or intercollegiate nature are impossible to control, hence the dangers of ill effects to participants outweigh the values of the competition.
4. Instructional classes in boxing are not particularly dangerous, but it is impossible to justify teaching an activity and at the same time to advise students against participation in the activity taught.

This committee was of the definite opinion that, "Boxing should not be included in the sports program of an educational institution, either as a curricular or extra-curricular activity."

The widely-known physical educator, Dr. David K. Brace (2, pp.1-3) wrote a letter on April 19, 1944 to Mr. Chester W. Holmes, Assistant Superintendent of Public Schools, District of Columbia, Washington, D. C., in which he stated:

I have your letter of April 15th asking me for any suggestions I may have relative to the proposal that boxing be taught to boys in the high schools of the District, to be financed by the Boxing Commission of the District. I am glad to give you, herewith, my opinion, which should be regarded as my personal views and not an official expression of the U. S. Office of Education.

It seems to me that the motive of the Boxing Commission may be highly commendable in that it doubtless desires that boys leaving the high schools of the District should be in a fine state of physical fitness, skilled in self-defense, and taught the lessons which can come from competence in physical combat, to the end that they may take their part better in the defense of our country.

I have always regarded boxing as a worthwhile activity for junior and senior boys in high school if properly taught and properly safeguarded. If boxing is poorly taught and not properly safeguarded, I think it should not be taught in high schools. Accident statistics appear to show that boxing ranks below many other school sports and activities both in number and seriousness of accidents. Some physiologists feel that boxing produces blows to the head which cause the rupture of small capillaries in the brain with resulting accumulative and injurious effects. I have not seen scientific evidence to this effect, but it may be true, at least in the case of boxers who have for years taken blows on the head.

In order to summarize my opinion I would say that boxing might be used in high school physical education programs for boys if the

following conditions are met. If any one of these conditions cannot be met I would suggest that boxing be omitted.

1. Boxing should be taught only as a regular part of the physical education class instruction program for boys, and under the administrative control of the schools.

2. It should be taught only in the junior and/or senior years of high school.

3. Only trained boxing instructors who understand the general program of physical education should be used. Under no conditions should boxing instruction be turned over to professional or amateur boxers no matter how good or how prominent they may be unless they themselves have been taught how to teach, as outlined in No. 4 below, either in Navy courses for training physical training instructors or in good professional schools training teachers of physical education.

4. Boxing should be included only if mass instruction is used, taught under formal control, with pupils executing movements on response commands, with much preliminary non-contact instruction in basic footwork, fundamental blows, and defense skills, confined to a few (4 to 6) fundamental blows, and taught in careful progression. Boxing is taught in the Navy, in our better college programs, and in a few high schools as outlined above. It is often poorly taught in high schools and becomes a series of bouts without graded instruction.

5. Instruction should also include related health instruction, safety skills, and instruction in attitudes.

6. For advanced or contact instruction heavy padded boxing gloves with wrist protection should be supplied for each boy in the maximum sized class to be taught.

7. For advanced contact instruction head protectors should be provided in sufficient quantities so that at least one-half of the boys in each class can each have one. Preferably each boy should have a head guard and if only one boy

of a pair is equipped the boy with the guard should be on the defense only (a make-shift procedure). It is possible that football head guards might be used.

8. Boxing should not be taught unless a teaching unit of 12 to 20 class periods can be devoted to it. Preferably these periods should be consecutive instruction periods.

9. Proper storage facilities for gloves and head protectors should be provided consisting of open and well ventilated shelves. Gloves should not be hung up or dumped in a box.

10. If taught in public schools boxing should be taught as a set of skills in self-defense and not as a spectator sport, and should, therefore, not be included as an inter-school competitive sport, used for exhibition bouts, or as a means of developing fighters for amateur tournaments.

I have done some teaching of boxing and appreciate its values as well as the problems involved. If my daughters were sons I would want them to learn some of the lessons that can be taught, through boxing, but I would certainly want them carefully taught.

A great deal has been said as to the advantages and disadvantages of boxing but a definite answer has not been given and there is a profound need for further research in this area. In many high school programs, boxing has a definite place in physical education activities. Some educators feel there is a place for boxing in the high school program along with other body-contact activities. In order to present a more thorough picture as to the relative merits of boxing with other contact activities, studies appraising the possible contributions

toward the total growth of the individual should be made. Abundant research on boxing's contribution to the physical education program as a whole has been done, but little investigation has been made on the contribution of boxing to the individual.

One of the most extensive research studies evaluating the physical education curriculum was that by The Committee on Curriculum Research of the College Physical Education Association. This nine-year research study had its beginning in 1927 and continued until 1936. Dr. William Ralph LaPort, (12) who was the chairman of the study and was assisted by hundreds of representative physical education teachers throughout the United States, compiled the most pertinent results into an 86 page booklet.

The committee for the curriculum study formulated five objectives that were to govern their work. These objectives were used as criteria for judgment in making evaluations of the contributions of the 30 different activities.

The five objectives were listed as follows: (12, p.8)

1. The contribution to the physical and organic growth and development of the child and the improvement of body function and body stability.
2. The contribution to the social traits and qualities that go to make up the good citizen and the development of sound moral ideals through intensive participation under proper leadership.

3. The contribution to the psychological development of the child including satisfaction resulting from stimulating experiences physically and socially.
4. The contribution to the development of safety skills that increase the individuals' capacity for protection in emergencies, both in handling himself and in assisting others.
5. The contribution to the development of recreational skills that have a distinct function as hobbies for leisure time hours, both during school and in after school life.

Table VII, which follows, shows how boxing and other body-contact activities were evaluated by the Curriculum Committee for the 12th grade level. Table VIII relates how each activity scored for all-round contribution for grades 10, 11, and 12.

TABLE VII*

Evaluation of Physical Education
Activities in Terms of Objectives

		0	1	2	3	4	5	6	7	8	9	10
Boxing	Physical	_____										
	Social	_____										
	Psychological	_____										
	Safety	_____										
	Recreational	_____										
	All-Round	_____										
Wrestling	Physical	_____										
	Social	_____										
	Psychological	_____										
	Safety	_____										
	Recreational	_____										
	All-Round	_____										
Tumbling and Pyramids	Physical	_____										
	Social	_____										
	Psychological	_____										
	Safety	_____										
	Recreational	_____										
	All-Round	_____										
Football	Physical	_____										
	Social	_____										
	Psychological	_____										
	Safety	_____										
	Recreational	_____										
	All-Round	_____										
Soccer	Physical	_____										
	Social	_____										
	Psychological	_____										
	Safety	_____										
	Recreational	_____										
	All-Round	_____										
Speedball	Physical	_____										
	Social	_____										
	Psychological	_____										
	Safety	_____										
	Recreational	_____										
	All-Round	_____										

*Adapted from Figure I in W. R. LaPorte (12, pp.9-12)

Table VII indicates that boxing, along with the other body-contact sports, ranks high in its contributions to physical and organic growth and development of the child. Swimming and diving are the only other activities of the thirty that are given a ten rating for the objective of physical skill, and handball is the only other activity that rates nine.

For all-round contribution to the five objectives, football ranked first in the body-contact activity group and soccer second. Speedball, boxing, wrestling, and tumbling ranked third, fourth, fifth, and sixth, respectively.

The ranking of all-round contribution to objectives for the contact sports in comparison to the thirty sports included in the study were: football, second; soccer, third; speedball, ninth; boxing, eleventh; wrestling, twelfth, and tumbling, twenty-first.

The ranking for contribution to the objectives in reference to the safety factor, in comparison to the other body-contact sports were: boxing, wrestling, and tumbling, first; soccer, second; football, third, and speedball, fourth.

TABLE VIII*

Ranked Averages of Median Scores for All-Round Contribution
(Grades 10, 11, 12)

Activity	0	1	2	3	4	5	6	7	8	9	10
Football	-----										
Soccer	-----										
Speedball	-----										
Boxing	-----										
Wrestling	-----										
Tumbling and Pyramids	-----										

The scores are arranged in order of descending rank. The bars represent the averages of the median scores of grades 10, 11, 12.

Ten represents maximum possible contribution.

*Adapted from Figure III in W. R. LaPorte (12, p.13)

The above table ranks the body-contact sports in relation to their standing to each other for all-round contribution for the three grades. The rank in comparison to all thirty activities are: football, second; soccer, sixth; speedball, seventh; boxing, twelfth; wrestling, sixteenth; and tumbling, twentieth.

A study of the physical education curriculum of the secondary schools of the state of Illinois and the sports activities taught in these schools was made by Jackson (10, p.243) in 1939 and 1940. He sent questionnaires to every high school principal and physical education teacher in Illinois. To compile his data, Jackson grouped the schools according to size as follows: Group A, up to 50 pupils; Group B, 50 to 99; Group C, 100 to 249; Group D, 250 to 499; Group E, 500 to 999; Group F, 1000 to 1999; and Group G, over 2000. Four hundred and forty high schools, or 45 per cent of the secondary schools of Illinois, were included in the study. This represented a population of more than 150,000 pupils and 1000 teachers of physical education.

Table IX, taken in part from Jackson's study, will show only those activities that are considered as body-contact activities.

Speedball and football were not taught in any of the schools covered by Jackson's study, although 52 activities were represented. The study indicates that tumbling was the most popular of the body-contact sports. It is interesting to note that schools of 100 to 249 enrollment had the greatest representation for each sport.

TABLE IX*

Activities included in the Curriculum for Boys in Illinois
High Schools

GROUPS	A	B	C	D	E	F	G	TOTALS
Soccer	9	25	68	34	18	16	40	210
Boxing	4	34	67	41	21	13	24	204
Tumbling	5	32	70	52	29	41	61	290
Wrestling	4	27	49	42	20	24	32	198

*Adapted from TABLE III in Jackson (10, p.246).

The most recent study made in relationship to boxing in high schools was completed at the University of Michigan, August, 1949, by Charles R. Orwick (20, pp.12-16). He sent 500 questionnaires to the select high schools most representative of the United States. Of the 500 questionnaires sent out, 220 were returned. The nine pertinent questions asked in the survey and their results are listed as follows:

Question 1. Do you think boxing should be permitted as an activity for high school boys (Grades 9-10-11-12)? Answer: Yes 145; No 65; Undecided 10.

Question 2. If answer to Question 1 is Yes, at what level? Answer: Intramural 85; Inter-scholastic 50; Physical education classes 100.

Question 3. If answer to Question 1 is No, or Undecided, would you feel differently if more precautions were taken to prevent injuries, including complete physical examinations, proper equipment, proper instruction? Answer: Yes 35; No 35; Undecided 5.

Question 4. In conjunction with Question 3, do you believe that proper safeguards could be worked out to make boxing an acceptable sport? Answer: Yes 155; No 53; Undecided 4.

Question 5. Do you think football should be permitted as an activity for high school boys? Answer: Yes 212; No 4; Undecided 4.

Question 6. Do you think it would be better to have boxing in schools or to allow boys of this age to compete in Golden Gloves, Diamond Belt and other independent tournaments of this type? Answer: High School 122; Independent 19; Both 34; Neither 44.

Question 7. Do you feel that independent boxing should be allowed for boys of high school age? Answer: Yes 58; No 136; Undecided 26.

Question 8. Do you believe that boys of high school age derive as much benefit from boxing as other high school sports such as Football, Basketball, Baseball, etc? Answer: More 15; Some 144; Less 48; Undecided 13.

Question 9. Would you list reasons for your approval or disapproval of boxing as a sport for high school boys?

Approval Replies.

1. This sport gives a boy a chance to compete regardless of his size or weight.
2. Boxing appeals to a certain type of boy who cannot be interested in other competitive sports.
3. The boy is entirely on his own when boxing.
4. Teaches him to think under fire.
5. Teaches more sportsmanship.
6. Best all-round conditioner.
7. Teaches control of the emotions.
8. Teaches coordination.
9. Sharpens reactions.
10. Same justification as any other sport.

Disapproval Replies.

1. Main object is to injure opponent.
2. Head is main object for blows.
3. Cost too great.
4. Makes boys "cocky".

5. Lack of competent instructors.
6. Improper matching.
7. Too strenuous for young boys.
8. Crowd reaction usually poor.
9. Lack of facilities.
10. Too scientific a sport for average boy.

This study showed that by far the most common disapproval to boxing in high school was that injuries to the head were too numerous to warrant its use in the program. Many of the physical educators felt that incompetent instruction was a chief cause for disapproval and also, that there were already too many other worthwhile sports in the high school physical education program. The author concluded that his study showed sufficient interest in boxing as a high school sport, yet much more study was required in order to find its place in the high school program of physical education.

CONCLUSIONS: This review of related literature indicates that boxing in the school program has received considerable attention. The contribution of boxing to the all-round development of the individual is ranked high in LaPorte's Curriculum study. (12) Body-contact activities ranked in the upper 50 per cent in all-round contribution among grades 10, 11, and 12.

Other studies, such as Jackson's (10), indicated strong interest in body-contact activities for high school boys, among which boxing is included. The comparison

showed that boxing ranked high among the activities presented in the high school curricula in Illinois. Tumbling ranked first in 290 schools; soccer, second in 210; boxing, third in 204; and wrestling ranked fourth in 198 schools.

Much of the literature reviewed showed that boxing did have a place in some phase of the physical education class program in the institutions of higher learning. Medical men were in agreement that boxing was a hygienic activity for the physical education class program, but this same group did not feel that boxing was justifiable on a competitive basis because of the possibilities of mental impairment.

Meyer's study (16, p.1) showed that in 1948-49, out of 620 institutions reporting, 263 sponsored boxing either on the physical education class activity level, intramural program, or intercollegiate basis. Sixty-two of the 620 institutions reported that boxing had been dropped from their physical education programs within the last decade, after once having sponsored the sport.

Kenney, Thacker and Gebhart (13, p.83) indicated in their study that directors responsible for athletic and physical education programs were in agreement in opposing boxing as an intercollegiate competitive sport, but there was a definite majority in favor of boxing as a physical education class activity. There were equal numbers for

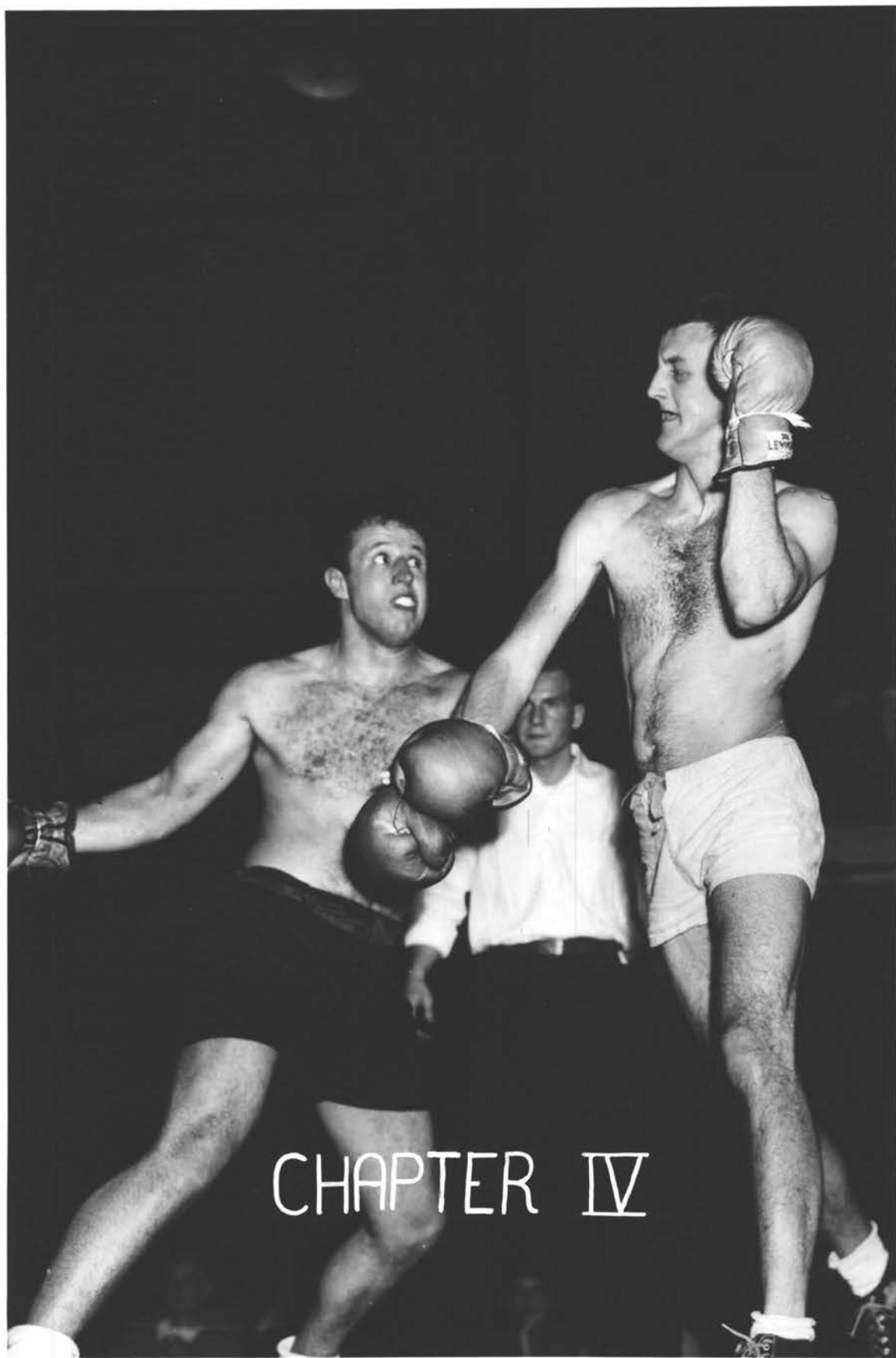
and against boxing as an intramural sport in the college program.

There seems to be a lack of information on the emotional and psychological benefits of boxing participation. All the studies that were reviewed appeared to be in agreement that the type of activities involving the combative elements have great value toward physical development. The literature and studies by Doctors Jokl (11), Schuck (22), and Steinhaus (26), all interested in the area of brain injuries due to boxing, seem to have been the greatest influencing factor as to the inclusion or exclusion of boxing in the school curriculum. It should be noted that these studies refer to vocational boxing, in which the objective is to strike the head, and not boxing on an activity basis.

The writings of Doctors Brace (2) and Schuck (22) concurred that boxing has a place in the high school program if all the recommendations they made are followed to the letter. They stressed the point that if any one of these recommendations is not observed, the sport should not be presented.

Orwick's study (20, p.24) found that boxing had a place in the high school physical education program, but its exact place required more careful study. He concluded that under the present rules and the manner in which the

sport is conducted at the present time, boxing is a hazardous sport which should not be encouraged. He was in agreement with all the questionnaires returned from 220 select high schools in that rule revisions and closer supervision could greatly reduce the hazards of boxing.



CHAPTER IV

CHAPTER IV
PRESENTATION OF DATA

The material included in this chapter is composed of tables, questions with their interpretations, and questionnaire results as received from 129 senior high schools of Oregon. This questionnaire is shown as Appendix A. The designated purposes of this thesis, as proposed, were as follows: first, to find the place which boxing is actually occupying in the physical education program of Oregon high schools; second, to show the satisfactory place of boxing as a physical activity in some high school programs; and third, to present reasons why boxing is not included as a physical activity in some high school programs.

In order to present a more comprehensive interpretation of the results, the 129 schools returning questionnaires were classified according to the sizes of their male populations, and to group them in an even distribution among the schools represented.

The male population of each school responding to this study was obtained from the State Department of Public Instruction, because of misunderstanding of the question by some physical education instructors.

The groupings as presented in Table X show the number of schools in each classification and the percentages of

the 129 schools responding, along with the number of male students in each grouping.

TABLE X

Group Classification of 129 Oregon High Schools Used in
This Study

GROUP CLASSIFI- CATION	NUMBER OF SCHOOLS IN EACH GROUP	PERCENTAGE OF SCHOOLS IN EACH GROUP	NUMBER OF MALE STUDENTS IN EACH GROUP
D	33	25.6	0 to 30
C	43	33.3	31 to 100
B	32	24.8	101 to 250
A	21	16.3	251 and over
TOTAL	129	100.0	

These results in Table XI show that a large number of Oregon high schools are sponsoring boxing at the present time, others have had boxing at some time in their programs, while others have never sponsored this activity. The request for accurate data about the schools that discontinued boxing was not forthcoming, due to lack of records or inadequate memories of instructors. The trend in some schools at the present time is to make a place for this activity in their programs. Table XI presents the number of schools and the related percentages according to their sponsorship of boxing.

TABLE XI

Present Disposition of Boxing in 129 Oregon High Schools

	GROUPS								TOTAL REPORT- ING	
	D		C		B		A			
	NO.	PER CENT	NO.	PER CENT	NO.	PER CENT	NO.	PER CENT	NO.	PER CENT
Number of schools sponsoring boxing.....	9	27.3	22	51.2	20	62.5	12	57.1	63	48.8
Number of schools not sponsoring boxing.....	24	72.7	21	48.8	12	37.5	9	42.9	66	51.2

The number of schools represented present a well-rounded picture. The largest amount of participation in boxing centers around the schools with a male student population of 31 to 100. It is not surprising to find such a picture, as the average male enrollment in Oregon high schools is of this size. The activity programs presented in a high school of this size are more varied than smaller school programs, providing activities that will develop and meet the needs of the individual and the group as a whole.

A large number of Oregon high schools do not sponsor boxing at the present time. More than half of the schools reporting do not sponsor boxing in any phase of their

programs, yet others are contemplating putting boxing into their scheduled physical activities. Table XII shows the present attitudes of the 66 schools not sponsoring boxing at this time.

TABLE XII
DISPOSITION OF SIXTY-SIX OREGON HIGH SCHOOLS
NOT SPONSORING BOXING

	GROUPS								TOTAL REPORTING	
	D		C		B		A		NO.	PER CENT
	NO.	PER CENT	NO.	PER CENT	NO.	PER CENT	NO.	PER CENT		
Number of schools in which boxing has been discontinued	3	12.5	0	0	3	25.0	2	22.2	8	12.1
Number of schools contemplating installing boxing in the future	3	12.5	3	14.3	3	25.0	2	22.2	11	16.7
Number of schools not having boxing and showing no interest in boxing	18	75.0	18	85.7	6	50.0	5	55.6	47	71.2

More than three-quarters of these schools were definitely against including boxing in any phase of their programs, while a minority felt that boxing should be a part of their

athletic facilities, hiring new physical education instructors who were experienced in boxing, or they were trying to meet the student interest shown for this sport. The schools which had discontinued boxing had done so because of: (a) lack of proper instruction; (b) improper supervision; (c) lack of sufficient male student population; (d) boxing was not required and not especially wanted in the physical education program; or (e) the physical education instructors had personal dislike for the sport.

The tendency to provide a boxing program in the physical education programs has its principal support in the schools with the smaller male population, probably because it is an individual sport which allows for more recognition of pupils in the small schools, since their enrollment is not enough to sponsor many team sports.

The replies obtained about the reasons that boxing was not included in the physical education programs showed that these reasons were varied. Table XIII shows a listing of the reasons given why boxing allegedly should not be and is not included in these programs. All of the instructors who were sent questionnaires were asked to list their approvals and disapprovals of the sport (Appendix A). They were also asked to state the reasons why they believed that boxing was not included in their programs, specifying definite causes for the non-inclusion.

TABLE XIII

REASONS GIVEN BY 129 INSTRUCTORS WHY THEY BELIEVED THAT BOXING SHOULD NOT BE INCLUDED IN THE PHYSICAL EDUCATION PROGRAMS OF OREGON HIGH SCHOOLS

Reasons	Total Number Reporting	Per Cent
Lack of suitable facilities	56	43.4
Lack of equipment	53	41.0
Lack of instructors	34	26.3
Unskilled instructors	30	23.2
Budget	30	23.2
Insurance	23	17.8
Community	20	15.5
Administration	19	14.7
Improper supervision	14	10.8
Student interest	14	10.8
Personal dislike by instructors	13	10.0
Lack of time element	13	10.0
Small schools (too few students)	11	8.5
Injuries in boxing more outstanding to public than other sports	11	8.5
Injuries outweigh the values received	10	7.7
Non-certified officials	8	6.2
OHSAA does not sanction sport	8	6.2
Objective is to induce injury	5	3.8
Not required in program	5	3.8
Community influences participants to turn professional	5	3.8
Undesirable, uneducated spectators	5	3.8
Dangers of serious head injuries	5	3.8
Parents objection	4	3.1
Poor condition of participants	4	3.1
Lack of medical supervision	4	3.1
Mismatching of contestants	4	3.1
No carry-over value	4	3.1
Preference for other activities	3	2.3
Transportation problem	2	1.5

As shown in this table, the majority of the instructors listed the four principal problems which confront the schools in connection with boxing as: (a) lack of suitable facilities; (b) lack of sufficient and suitable equipment; (c) an inadequate number of instructors; and (d) lack of instructors who are properly trained to guide and control the sport as is deemed by authorities to be to the best interests of everyone concerned. Budget limitations, inadequate insurance coverage, community intolerance, and biased school administrators were the next big group of reasons that boxing did not find its way into the school programs. The schools reporting budget handicaps explained that no money had been allocated to provide for the inclusion of boxing, and therefore, it could not and should not be presented. Adequate insurance coverage could be procured by some schools, but the fees were held to be too high for the average school or high school boy to pay. The community attitude, which brought pressure to bear against boxing in the program, was a major handicap in some schools. On the other hand, a number of schools had had pressure applied to them to include boxing, which was then subsidized by the community to satisfy a definite group of people. The reasons that some administrators were averse to boxing were (a) their belief that the sport did not contribute to the physical education program, and

(b) a definite personal dislike for the sport.

Improper supervision was the biggest controversial issue in the majority of the studies reported in physical education and education magazines, yet this does not rank high in this study in relation to the other reasons reported. This may be attributed to the fact that any incompetent instruction or supervision of the sport had allowed the directors of the physical education program to discontinue the activity or, through experience, they had found the sport overshadowing the rest of the program; and this had caused them to drop the activity from the school's athletic program.

Pupil interest in boxing was found lacking in some communities. The writer observed that this reason was reported most often in the schools having a large male population and in the schools which maintained a rigid four-sport program. In the high schools in which a large variety of physical activities was presented, the instructors reported that they believed they were meeting the needs of the pupils and the community and did not want to add more to an already crowded program.

Personal dislike for boxing as a physical education activity was reported as the reason for its exclusion by a few instructors. The majority of these physical education instructors suggested that the writer read some of the recent publications about boxing and its destructive

effects on the participants. Their personal dislike was the only substantial reason given as to why they did not teach the activity. This type of reasoning was also expressed by another small minority of the physical education instructors reporting who accepted their administrators' concepts of the sport and unquestioningly excluded it from their programs.

"Lack of time" was reported by 13 schools as a reason for not offering boxing. This reason came most often from schools with large male populations. The instructors in these schools stated that they had set schedules to follow, and could not find time in their programs for more activities. A few physical education teachers, especially in the smaller schools, stated that they could find time for only what was required by the state course of study.

A small percentage of the schools reported having too few pupils with whom to work to justify a program of boxing instruction. The instructors reporting this reason stated that their teaching and coaching loads were already too heavy, without adding the burden of boxing. A few of the eleven reporting this reason remarked that they did not have enough male students to field a basketball team or play other group sports, however.

An interesting reason put forth by eleven of the instructors was that boxing injuries are more publicized

and more outstanding to the public than those occurring in other sports. They stated that they did not care to risk public criticism and bad publicity for the school and the community by offering boxing.

Ten of the 129 physical educators believed that the injuries incurred in boxing far outweighed any values received from the sport. These same educators urged the writer to read current publications about boxing's hazardous effects upon mankind (25), (26).

Other reasons which influenced physical education directors to exclude boxing were: (a) not having certified officials handle the competition; (b) the Oregon High School Athletic Association does not sanction the sport; (c) the sport is not part of the required physical education curriculum; (d) one objective of boxing is to induce injury; and (e) too many of the spectators attending boxing bouts are from the undesirable community element usually, and are not educated as to the sport's real objectives.

Parental objection was reported by only four schools, whereas this was one of the biggest objections in the published studies reviewed by this writer. Four schools reported that competitive boxing should not be allowed, due to the poor conditioning of the contestants and to improper and inadequate medical supervision. Three schools

felt that other activities were more beneficial, while four others stated that boxing had no carry-over value. The smallest group in this study stated their sole reason for not presenting boxing was that of school bus transportation. These two schools both reported wanting to have boxing, but they could not do so because the buses taking the pupils home had to leave before the hours available at which they could offer the activity.

Boxing is conducted in 63 of the 129 schools reporting, but is handled in a number of different categories. These are shown in Table XIV.

TABLE XIV

The Place of Boxing in the Physical Education Programs in Oregon High Schools

GROUP	REQUIRED PHYSICAL EDUCATION PROGRAM		INTRAMURAL		INTER- SCHOLASTIC		AFTER SCHOOL		CLUB PROGRAM	
	NO.	PER CENT	NO.	PER CENT	NO.	PER CENT	NO.	PER CENT	NO.	PER CENT
D	4	44.4	2	22.2	2	22.2	4	44.4	2	22.2
C	14	63.6	11	50.0	6	27.2	8	36.4	7	31.8
B	14	70.0	6	30.0	8	40.0	5	25.0	4	20.0
A	9	75.0	2	16.6	4	33.3	3	25.0	1	8.3

It was found that if boxing was presented in the regularly scheduled physical education classes, it was usually

a part of the intramural program also. The majority of the C and B groups of schools sponsored boxing not only on an interscholastic level, but in intramural and physical education classes as well. This type of program seemed to prove the best for these classes of schools, as it met a number of the needs of those pupils not interested in such other activities as group sports or games. Schools presenting boxing as an after-school activity classified the activity under a number of headings, such as "smokers," benefit shows, carnivals, or for pupil interest only. The organizations which sponsored boxing were generally limited to such organizations as school clubs or to selected agencies in the community which sponsored the sport for recreational purposes. These local agencies supplied instructors from the community, but used the school facilities. Other programs were presented by voluntary agencies under their own direct supervision and apart from the school's jurisdiction, but used high school boys mostly or entirely.

The high schools sponsoring boxing on an interscholastic level held a small number of dual meets each year with other surrounding high schools, and awarded trophies to the winners in each weight class. Fifteen schools presented trophies to the winners in each weight class. Fifteen schools presented boxing as a major sport, held

dual meets and district tournaments, and awarded "letterman" sweaters to the individual team members. Interscholastic boxing is not recognized by the Oregon High School Athletic Association. This has seemed to make the sport unpopular among the high schools which belong to the Association. Another outstanding reason for not offering boxing in some high schools is the present impossibility of obtaining adequate insurance coverage from this Association at its lower rates for possible injuries incurred by participants during the season of boxing.

Intramural boxing is usually given on a student interest basis or a competitive basis. Each participant receives instruction from the intramural director, and either competes in a tournament or participates from self-interest or for the physical and mental benefits derived from the boxing itself. Some intramural boxing programs culminate in all-school championships, and the award of individual trophies. Usually, no admission is charged for such shows. A small group of schools presenting boxing at the intramural level engage in round-robin tournaments, and the winner in each weight bracket is presented with a trophy after accumulating a specified number of points.

Where boxing is taught in the regular physical education classes, it is taught for its basic skills and

fundamentals. The classes allow actual body-contact in the activity period to prepare the pupils for competition in the intramural program. The required physical education activities program, which includes boxing for whole classes, usually schedules boxing as an elective activity. This was one of the big reasons that boxing was not well represented in the physical education program of these 129 Oregon high schools. One major reason listed by the majority of physical education instructors who did not offer boxing as a physical education activity was their own lack of experience and suitable educational background to teach the sport properly.

The 63 high schools presenting boxing in one area or another have instructors with quite varied types of boxing experience and background. In 19 of the schools the instruction is given by a member of the faculty outside of the physical education staff, or even a non-faculty member, and not by a physical education instructor. Some of the boxing in the schools is handled by outside voluntary agencies, while other programs have a student in charge. Table XV gives a summary of the type of experience each of the reported boxing instructors has had that, it was held, qualified him to teach boxing.

The area most representative of the instructors' experience lies within the field of college technical

TABLE XV

BOXING EXPERIENCE OF 63 OREGON HIGH SCHOOL INSTRUCTORS

EXPERIENCE	PHY. EDUC. INSTRUCTOR	OTHER FAC- ULTY MEMBER	NON-FACULTY MEMBER
Professional.....	3	1	4
Professional and Club..	1	0	0
Professional, Inter- collegiate, and coaching clinics.....	1	0	0
Professional, inter- collegiate, and college technical....	1	0	2
Intercollegiate and college technical....	7	0	0
Intercollegiate and coaching clinics.....	1	1	0
Intercollegiate, col- lege technical, and coaching clinics.....	1	2	0
Club and college tech- nical.....	1	2	0
College technical.....	12	0	1
College technical and coaching clinics.....	7	0	1
College technical and service connected....	4	0	1
Service connected alone	4	1	1
None.....	4	1	1

training. The majority of the boxing instructors learned their basic skills and techniques at the institutions from which they were graduated. Intercollegiate boxing competition combined with college technical training stands high as the experience level for seven of the instructors. Eight boxing instructors have the background of college technical training supplemented by coaching clinics. An interesting point in this study is that four of the non-

faculty members had had previous professional boxing experience, which may account for some of the outside voluntary agencies providing the program. Three of the physical education instructors had had previous professional experience, accounting for the three schools scheduling boxing for a period of eight weeks. Of the 63 instructors represented, six had had no previous definite boxing experience whatsoever. This group left the instruction up to the pupils themselves, or to a pupil who had some type of background in the sport. Club boxing experience was not well represented in this study, as there are very few private amateur athletic organizations sponsoring boxing in the state of Oregon.

Two questions in the questionnaire (Appendix A) showed the amount of interest each instructor of the 129 reporting had in regard to training in boxing. These questions were as follows:

Question 1. Would you teach boxing if your training had been adequate in the activity?

Answer: Yes 57; No 25; Undecided 47.

Question 2. If a boxing clinic for physical educators was held at a teacher-training institution, would you be interested in attending?

Answer: Yes 76; No 15; Undecided 38.

Forty-four per cent of the 129 instructors said they

would teach boxing if their backgrounds had been adequate. Nineteen per cent were definite in their statements that they would not include boxing in the physical education programs of their schools, even though they themselves had adequate backgrounds to teach it. The remaining 36 per cent of the instructors were undecided in answering the question, either because they felt that their training was adequate or that boxing was being presented and properly supervised in their programs. This was shown by postscripts under the question.

The answers to Question 2 showed that the majority of the instructors wanted to participate in a clinic to gain further knowledge and skill relative to boxing and its possibilities. For the 15 answering in the negative, the decision was based on the fact that outside agencies were handling the programs much better than they themselves were capable of doing. This was shown in postscripts under the question. The undecided instructors were so classified because they did not give direct answers, although they indicated answers to some extent by stating that they could not spare the time, were not interested, or felt they had an adequate background. This writer believed it was better to call them "unclassified" than to try to force their answers into one of the other two groups. The returns from the questionnaire showed that both instructors who

were and those who were not teaching the activity felt that it had definite contributions to make to the pupils taking part in the program. Some of the physical educators felt that boxing was needed to round out their physical education programs. Table XVI is a listing of what the 129 instructors stated in regard to values of boxing and the reasons it should be included in the physical education program.

TABLE XVI

VALUES STATED BY 129 INSTRUCTORS FOR BOXING IN THE PHYSICAL EDUCATION PROGRAMS IN OREGON HIGH SCHOOLS

REASONS	TOTAL NO. REPORTING	PER CENT
Self-defense	47	36.4
Student interest	44	34.1
Smokers, benefit shows	36	27.9
Recreation	27	20.9
Competition	24	18.6
A conditioning sport	24	18.6
Community interest	19	14.7
Self-expression	16	12.7
Meets needs of students not able to compete in other sports	16	12.7
Beneficial activity in physical education classes	12	9.3
Coordination and timing	10	7.7
Carry-over value into other sports	8	6.2
Confidence	6	4.6
Aggressiveness-initiative	4	3.1
"Give and take" attitude	4	3.1

"Self-defense" was listed as the greatest value to be derived from the sport. They doubtless associated it with

the self-confidence that usually accompanies adequate or reasonably adequate ability in self-protection. Boxing is only one phase of self-defense, but it may be taught for this purpose only and not for the other benefits that can be derived. The interest shown by pupils in the sport was second in the list of reasons for offering boxing. Another frequently listed reason, which indicated the actual culmination of the entire boxing program in some of the schools, was the holding of "smokers" or benefit shows. While these have values in themselves in the actual competition, the winning of letters or other insignia, and the showing of their skill, the probable purpose behind some of the boxing shows was the raising of funds to assist in the support of other activities. This statement is substantiated by the answers to a question in the questionnaire as to the uses of the proceeds received from the boxing exhibitions. Sixteen of the 40 schools which charged admission to the shows stated that the money gained was used for the general student body fund; eight used the proceeds to support the "letterman's" organization; seven contributed the money to the school club program; five schools used the returns to buy athletic awards; four schools donated the money to local and national charity funds; and only one used the proceeds to develop the program of boxing itself in their school.

One-fifth of the schools sponsored the activity of boxing for recreational reasons. This was closely checked by this writer, who found that the majority checking this item had a large amount of pupil interest in boxing in their schools. It is obvious that both recreation and pupil interest have been merged here. A little less than 20 per cent of the schools replying gave competitive spirit as a reason for believing in the value of boxing, as the world is full of competition for which pupils should be trained. Eight of the 24 schools listing competition as a value believed in it as a means of developing the competition characteristics of some pupils who had not and possibly could not for various reasons receive recognition in group activities. An interesting value listed by 24 of the schools was the use of boxing as a conditioning activity for other sports. They expressed the belief that boxing developed quicker reaction time, keener eyes, better muscular coordination, and served as an all-round body conditioner.

Two reasons, closely related as given by a total of 32 instructors, stated that boxing gave opportunity for self-expression and met the needs of pupils not able to compete in other sports. Of the 32 reporting this, 20 stated that it was a sport in which the small boy, light in weight and small in stature, could compete with equal

opportunity for recognition.

"A beneficial activity in physical education classes" was the reason given by 12 of the instructors. They stated that the activity met all the needs of the individual as well as of the group, and that there were no discipline problems present while the activity was being presented. Ten of these physical educators gave coordination and timing as additional contributions of boxing. Four other values were listed by small numbers of those answering the questionnaire, although the writer believes these values to be quite important, too.

Forty of these 129 schools had boxing upon a competitive basis, and actual tournaments or dual meets between schools were held. Of this number 15 schools held inter-school competitions, while 25 schools kept boxing solely on an intramural basis as far as competition to which admission fees were charged.

In relation to competitive boxing, the author was anxious to know what types of grouping into "classes" were used in the competition. This study showed that, of the 63 schools having boxing, 31 used the classifications based on age, weight, and experience; nine, age and experience; ten, age and weight; six, age only; and seven used squad or "group-against-group" classification. These last were based on any or all of the above factors. It may be concluded that some means of equalizing classification is

being practiced at the present time in the 63 schools presenting boxing.

The question asked in the questionnaire as to length of the training time required for competition showed that the length of time of the training period varied among the 40 schools. The average length of time for all of the schools was a minimum three-week period of one hour a day. Some schools demanded periods of six weeks and two or three hours a day; while others provided as little as one hour a day for one week.

The length of the boxing bouts also varied. The majority of schools having interscholastic competition limited the bouts to three two-minute rounds, with a minute rest between rounds. The schools having intramural competition allowed three one-minute rounds, with a one-minute rest between rounds. These limits differed slightly in all of the schools, but the average length of the bouts was three two-minute rounds. The National Collegiate Athletic Association stipulates three one-minute rounds, with one-minute rest between rounds for high school boxing. Obviously, some schools do not adhere to this rule.

Twenty-nine of the 40 schools stated they had medical supervision before and during the bouts. Eleven of the schools did not have medical supervision, relying solely upon the physical education personnel to care for possible

injuries, which is contrary to the recommendations of leading boxing specialists (18), (22). The information gained was enlightening to this writer, in that this important phase of the program was supervised by proper medical personnel in only 72 per cent of the schools. The writer believes that this phase should have 100 per cent representation.

The personnel used as seconds in the ring corners were shown in the questionnaire returns. Twenty-three of the 40 schools had pupils assist in the corners, and 17 employed faculty members for this purpose. All the 40 schools had a referee in the ring with the contestants. Of the 40 schools reporting, 19 used the coach as referee; 11, a member of the faculty; but 10 hired a fully qualified independent official from a nearby college or city. The National Intercollegiate Boxing Coaches Association strongly recommend that only competent and experienced seconds and officials be used in high school boxing to insure proper supervision.

The equipment necessary to insure proper protection while boxing was well represented among the 40 schools. They all made use of rubber mouthpieces for protection of the boxers' teeth. Headgears made of leather sponge rubber to protect the head against injury were used by 27 of the schools during their training periods and working-out sessions. The athletic cup supporter, a bakelite cup

enclosing the groin to prevent injury, was required for competition in 22 schools, whereas the other 18 schools required only the regular athletic supporter, which does not insure adequate safety. The use of ointment on the ears and face to protect against possible skin abrasions and cut eyes, was used during workouts and competition as reported by 18 of the 40 schools. All the 40 schools reported the use of hand-wraps for training or competition. Of the schools using hand-wraps, 15 used tape over the wraps and on the wrists, which is not recognized as a legal practice according to high school boxing rules. Eight used tape on the hands, which is illegal practice, nine covered the thumbs, and eight used it to "button fingers." The "buttoning" of the fingers with tape, which is illegal, showed that of the eight schools using this method, all eight instructors had had professional boxing experience. It may be important to note for the reader that this name for wrapping hands is derived from the days when professional boxers incorporated buttons sewed on a piece of cloth over the knuckles and covered by tape and wraps to inflict sharper and more effective blows.

The use of ten or twelve ounce gloves during training was standard among all the schools, where sixteen, eighteen, or twenty-two ounce gloves would have been better. The use of the lighter gloves is offset somewhat by the use of

headgear, however. Ten and twelve-ounce gloves were used in all of their bouts in place of the fourteen-ounce glove. A few schools used fourteen-ounce gloves for all weight classes to insure protection. Professional boxers use four and six-ounce gloves, which may account for the large number of injuries and deaths attributed to vocational boxing.

Thirty of the 40 schools had rings for their competition with many types of mats and coverings. The other ten schools used improvised mats without ropes for their rings.

Only 15 of the schools had floor mats of a three-inch thickness for their rings, which is the recognized thickness for ring floor coverings to insure adequate protection. Further checking showed that these 15 had boxing on a highly organized competitive basis. Their rings were regulation size of 20-by-20 feet. The other 20 had rings of larger size than regulation, some being 24-by-24 feet; others had rings too small for proper competition, some being as small as 12-by-12 feet.

The incidence of injuries for the 63 schools was small in comparison with the total number of male pupils enrolled in these schools. Reports of chipped or broken teeth came from eight schools. Four schools stated they had each had broken or dislocated noses during their entire season. Nine schools reported cuts over the eye. Severe cases of

headache were reported by four schools. There was no report of brain hemorrhage or concussion, eye impairment, broken bones of the arm, jaw, or ribs. No one reported ruptured eardrums or cauliflower ears. Nine schools reported broken bones in the hand, and three sprained thumbs. One school reported that the only injury sustained in six years of boxing had been a dislocation of the knee, which was a direct result of a football injury the previous fall term.

Boxing in the physical education activities program is on an elective status in Oregon high schools, being one of the major reasons it is not acceptable to a number of schools. The schools presenting boxing in their physical education curricula adopted it in place of another authorized sport. The place boxing holds in relation to other activities presented in the high school physical education programs was higher than anticipated by this writer, as revealed in this study.

It was found that schools having a male population from 31 to 100 usually had the four-season sports, namely, football, basketball, baseball, and track. Schools having a male enrollment of more than 100 usually scheduled a physical education program using all types of activities, including group and individual sports. Many of the smaller schools played only basketball during the whole year, supplementing the sport with softball for a few weeks.

The average length of time in weeks each activity was presented and the number of schools presenting the activity is shown by Table XVII.

TABLE XVII

POSITION OF BOXING IN RELATION TO OTHER PHYSICAL ACTIVITIES
OFFERED IN 129 OREGON HIGH SCHOOLS

ACTIVITY	NO. SCHOOLS PRESENTING ACTIVITY	AVERAGE NO. WEEKS PRESENTED
Basketball	108	7.9
Touch Football	101	5.8
Softball	90	5.0
Track	86	4.4
Tumbling	77	3.8
Baseball	51	6.3
Volleyball	49	3.2
Wrestling	42	3.4
BOXING	41	3.4
Rhythmics	35	4.3
Badminton	29	2.8
Horseshoes	28	3.5
Social Dancing	26	3.1
Foul Throwing	25	3.3
Apparatus	23	3.6
Speedball	23	2.5
Tennis	22	4.1
Table Tennis	22	3.6
Swimming	8	4.2
Golf	8	3.2
Handball	6	4.9
Archery	5	2.4
Trampoline	4	3.8

Of the 23 activities offered in the physical education programs in the 129 high schools replying to the questionnaire, boxing ranked ninth in the list. Boxing ranked

fourteenth when the average numbers of weeks during which each activity was presented were totaled. Forty-two schools offered boxing in their required physical education programs. In comparison with other body-contact sports, such as wrestling, speedball, tumbling, and football, boxing ranked fourth in the average number of weeks presented. Boxing ranked second among the individual sports, as contrasted with team games offered in the program, wrestling being more popular. This may be attributed to wrestling being a major sport in the majority of schools sponsoring it in the state of Oregon.

This study found that some small schools play basketball for 24 weeks of the year, using touch football for 12 weeks to round out their physical education programs. A few schools reported that they did not have enough facilities for any sports except basketball and volleyball. Lack of adequate facilities was one of the frequently mentioned reasons for not including boxing in the physical education programs. This same reason was given by a large number of the smaller schools for not presenting a greater variety of activities in the program.

The study showed that the sports which are offered in the majority of C, B, and A high schools consist chiefly of basketball, touch football, softball, and tumbling. These activities are easily organized and taught, as the

majority of high school boys have been exposed to their fundamentals during their grammar school years. Boxing does not fit into this type of rigid schedule as it demands individual and specific methods of teaching in order to achieve the ultimate goals of the activity. Other activities in which a large group can participate is often given preference over individual sports--another handicap to boxing in the program.

Boxing ranks high in all phases of the physical education program, which should establish a status for the sport in relationship to the other sports presented. Additional schools are contemplating putting boxing in their physical education programs, and directors wanting further education in the sport are in the majority. Boxing at the present time is a useful activity in many schools, not just as a physical activity, but as a means of developing pupils and of helping support other activities, both athletic and non-athletic, in the school program. This writer feels that boxing has a valuable status as a physical education activity and as an intramural and an interscholastic sport in the physical education programs of Oregon high schools.

CHAPTER V



CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

The results of this study are indicative of the fact that a definite interest in boxing as a high school sport exists in Oregon. The study has pointed out that boxing has a place at the present time in 63 of the 129 high schools reporting. Boxing in these high schools is offered in three different categories: first, as a physical education class activity; second, as a competitive sport on an intramural and interscholastic level; and third, as a means of raising funds to support other school activities through "smokers," benefit shows, and carnivals. The reasons given by the physical education instructors for not including boxing in their programs were basically sound. It was apparent that there was an underlying fear of potential injuries which might be incurred in the sport. Analysis of the related literature showed these fears were not unfounded, yet they are still of a controversial nature. The conclusions found in the literature and the opinions set forth in the answered questionnaires agree that head injuries were the most to be feared. The resulting data from the related studies bear out the theory that the hazards of boxing can at least be greatly reduced by using proper equipment, specially and well-trained supervisors

and instructors, and proper rule revisions.

Boxing as offered at the time of this study in Oregon high schools tends toward being highly competitive in only a few small schools. The other schools reporting boxing did not maintain the sport for competitive purposes or in as highly organized a form as that found in the small schools. A small group of schools consented to outside agencies handling the activity outside of their jurisdiction, creating a medium for cultivation of unsatisfactory "professionalism" and improper supervision.

This study found the majority of schools sponsoring boxing to be complying with the rules and equipment requirements specified by the National Collegiate Athletic Association. A small group of schools used make-shift equipment and followed professional boxing procedures. These accounted for a large percentage of the injuries incurred, as shown in the results of this study.

The experience and backgrounds of the instructors were varied in amount and quality. They showed the need for a more specialized type of instruction for boxing in order to properly teach and to control the sport in high schools. This area should be studied further, as it is one of the greatest reasons for the controversy about offering boxing in high schools. Boxing requires a highly trained instructor to teach it successfully. It would be

desirable for the instructor to have participated to an extensive degree in competitive boxing before attempting to teach it. This is also the source of some of the controversial issues around the value of boxing.

The majority of the high school physical education instructors who replied to the questionnaire as having boxing programs were interested in the improvement of their boxing programs. Nearly all of the reporting instructors showed they would like to learn more about the sport if a clinic were presented at a recognized teacher-training institution.

Boxing showed well in the physical education activities program, ranking ninth in the total of 23 activities offered. The trend toward including boxing in the physical education programs of Oregon high schools is shown by this study. The study shows boxing is being acknowledged as a valuable contributing activity in the physical education program, its values far outweighing its weaknesses where it is well taught and well controlled.

RECOMMENDATIONS: The writer offers the following recommendations to high schools contemplating boxing as a part of their physical education programs and to those who have the sport at the present time:

1. Select a competent and experienced instructor to teach boxing. The instructor should be skilled in the

basic fundamentals and techniques of the sport. As a general rule, one should avoid selecting an ex-professional pugilist unless he is convinced that he can adapt himself to accepted educational aims and keep the sport within its proper limits.

2. It is recommended that boxing be introduced upon a physical education class program basis in its initial stages. Boxing as an activity lends itself well to physical education class-work. Better results can be accomplished if the sport is taught as a regular progressively developing physical education activity rather than as an elective after-school sport. No actual body contact--that is, no actual boxing at all--should be allowed until the fundamentals have been mastered.

3. All high schools contemplating sponsoring boxing on a competitive basis should adhere strictly to the rules recommended by the National Intercollegiate Boxing Coaches Association for interscholastic boxing. These rules have been formulated through years of research to insure the many necessary safety factors.

4. A well-conditioned athlete in any sport is less susceptible to injury than an untrained competitor. The writer recommends that no boy be allowed to box until he has been examined and passed as physically acceptable by a physician. It is recommended that the pre-competitive

training period be of a month or more in length, consisting of an hour or more each day.

5. Competitive boxing should first be offered on an intramural basis. Interscholastic boxing should not be contemplated until several years of successful intramural boxing have been experienced.

6. Before competition, all of the boxers should be examined by a physician. This physician should be present at the ringside during all contests and should have complete supervision over all injuries.

7. All public boxing exhibitions should be well planned, and conducted in a dignified manner. Booing and raucous conduct by the spectators should be discouraged. The rules and objectives of boxing should be explained to the public before the contests start. If the contests cannot be well conducted and controlled, they should not be held.

8. The boxing instructor should take great care in matching contestants. He should consider not only weight, but age, experience, ability, and height.

9. Boxers should have at least as good protective equipment as football players. A thumbless glove or a well-padded glove with a laced-in thumb should be used. The boxers' hands should be wrapped during training and during competition. Protective supporter cups should be

worn. Each boxer should wear an individually-owned mouth-piece. Headgears should be worn, both in the training period and during competition. Protective ointment should be applied to the face and ears to prevent skin abrasions and cut eyes.

10. Only well-qualified officials should be used. Home-town decisions have done boxing more harm than good. At the end of each round, the judges' point-scores should announced and posted. This will help prevent many unpopular decisions.

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APPENDIX A

QUESTIONNAIRE

"STATUS OF BOXING IN THE PHYSICAL EDUCATION PROGRAM OF
OREGON HIGH SCHOOLS"

NOTE: THE FOLLOWING INFORMATION TO BE ANSWERED BY THE
PHYSICAL EDUCATION INSTRUCTOR IN CHARGE OF THE
BOXING ACTIVITY; IF NONE, THE DIRECTOR OF THE
P. E. PROGRAM.

Name _____ Official Title _____

High School _____ City & County _____

Graduated from: _____ year _____

Teaching Major in College or University _____ Minor _____

High School Enrollment (Male) _____ No. of Male Teachers _____

P. E. Instructors (Male) _____

PHYSICAL EDUCATION PROGRAM (Please check each item. Write
our your situation under OTHERS
below.)

In addition to your required physical education, do you
have: An Intramural Program? Yes ___ No ___. Interscholas-
tic Competition? Yes ___ No ___. Others _____

Type of required physical education program schedule used:
Semester plan _____; Combination Health and Physical Educa-
tion. (3-2 Plan) _____; Yearly _____; Grade level at which pre-
sented: Freshman _____ Sophomore _____ Junior _____ Senior _____ Other _____

ACTIVITIES

Check activities presented in your required physical
education program by placing approximate number of weeks
the activity is taught in the space in front of the activi-
ty. (i.e. 6 Basketball)

___ Soccer	___ Speedball	___ Touch Football	___ Foul Throwing
___ Volleyball	___ Horseshoes	___ Track	___ Baseball
___ Handball	___ Apparatus	___ Table Tennis	___ Softball
___ Wrestling	___ Tumbling	___ Trampoline	___ Basketball
___ Boxing	___ Social Dancing	___ Tennis	___ Swimming
___ Badminton	___ Rhythmics	___ Golf	___ Archery

If Boxing is Not Given, Please Indicate: Lack of suitable facilities___; Lack of instructors___; Unskilled Instructors___; Community___; Equipment___; Budget___; Insurance___; Student interest___; Administration___; Personal opinions___; Others_____

If Boxing is Offered, But Not in Physical Education Program, in what Category: Intramurals___; Interscholastic___; After-school activity___; Club program___; Others_____

Methods used in Teaching Boxing: Group instruction___; Individual instruction___; Combination group and individual___; Others_____

Reasons for Presenting Boxing: Self defense___; Competition___; Recreation___; Smokers___; Benefit shows___; Student interest___; Community interest___; Others_____

Type of Supervision: Physical Education instructor___; Other member of faculty___; Non-faculty member___; Others_____

Instructor's Experience: Professional___; Intercollegiate___; Club___; College technical training___; Coaching clinics___; None___; Others_____

Have You Had a Boxing Program at Any time in Your School? Yes___ No___ Years___ If yes, and discontinued, reasons for discontinuing:_____

Do You Intend to Have Boxing in the Future? Yes___ No___
When_____

BOXING COMPETITION

Type of Competition: Interscholastic___; Intramural___; Others_____

What type of classification do you use for competition? By weight___; Age___; Experience___; Others_____

Length of Training Period Required for Competition (Enumerate): Hours daily___for___weeks.

Bouts: Length of rounds___minutes; No. of rounds___; Rest period between rounds___minutes.

Medical Supervision before and during bouts? Yes ___ no ___.

Seconds in Corner: Students ___; Faculty Members ___; None ___
Referee: Yes ___ No ___ . Coach ___; Member of faculty ___;
Certified official ___; Non-faculty member ___.

EQUIPMENT USED (Check items used.)

Mouthpieces ___; Headgears ___; Supporters-Cup ___ Athletic;
 Ointment for face and ears ___; Hands wrapped ___; Tapes used
over boxer's wraps? Yes ___ No ___ On wrists ___ hands ___ thumbs ___
 to button fingers ___.

Procedure: Do you use the same weight of gloves in all
 bouts? Yes ___ No ___ . If NO, explain glove weights; if YES,
 give glove weight only _____

RING? Yes ___ No ___ . Size of Ring ___; Size of Ring mat ___;
 Thickness of ring mat ___ . Mat without ring? Yes ___ No ___
 Size of mat ___ Thickness _____.

CHECK WHERE COMPETITION IS HELD.

Gym floor ___; Recreation hall ___; School auditorium ___;
 City club or organization ___; Others _____

Number of Competitors in Boxing: Interscholastic ___; In-
 tramurals ___; Age levels of competitors _____ years.

Do You Charge Admission to Your Boxing Matches: Inter-
 scholastic? Yes ___ No ___ . Intramurals? Yes ___ No ___ .
 Others _____

Proceeds used for: General Student Body fund? Yes ___ No ___;
 Lettermen's Club? Yes ___ No ___; Support School Club program?
 Yes ___ No ___; Athletic awards? Yes ___ No ___ Charity Funds?
 Yes ___ No ___ . Others _____

Number of Injuries DIRECTLY Resulting from Boxing each Year.
List number of injuries in each area: Chipped or broken
 teeth ___; Broken or dislocated noses ___; Cuts over eyes ___;
 Severe headaches ___; Cerebral Concussion ___; Cut lips ___;
 Eye injuries ___; Broken bones of arm ___; hand ___; ribs ___;
 jaw ___; Ruptured eardrums ___; Injured outer ears ___; Other
 types of injuries and number _____

Do you feel that a Boxing program has a place in the high
 school physical education curriculum? Yes ___ No ___ .

Would you teach Boxing if your training had been adequate in this activity? Yes___No___.

If a Boxing Clinic for Physical educators was held at a teacher-training institution, would you be interested in attending? Yes___No___.

List your major disapprovals and/or approvals to Boxing in high schools.

Personal remarks and suggestions.

Department of Physical Ed.
Oregon State College
January 16, 1950

Dear

Enclosed please find a questionnaire which will be used for obtaining pertinent information as to "Status of Boxing in the Physical Education Program of Oregon High Schools."

The question of whether or not to include Boxing in the physical education program is a highly controversial issue. The hazards associated with Boxing have caused the sport to be condemned by many physical education authorities, however, reports indicate the number of schools conducting boxing classes is increasing.

The writer is desirous of obtaining a true picture of Boxing, and its place in the high school physical education program. Any criticism or suggestions placed upon the back of the questionnaire will be appreciated. A summary of this survey will be forwarded to you at your request. Please return the questionnaire at your earliest convenience in the enclosed self-addressed envelope.

Gratefully yours,

Hal E. Petersen
Boxing Instructor

FOLLOW-UP POSTCARD

February 28, 1950

Dear Sir:

In order to make an accurate compilation of data for the study, "Status of Boxing in the Physical Education Program of Oregon high schools," the writer necessitates your part of the survey as soon as possible.

It would be appreciated if your immediate attention could be given to this matter. If the questionnaire has been lost or misplaced, the writer would be glad to replace it.

Acknowledgement of this card would be greatly appreciated.

Yours truly,

Hal E. Petersen
Boxing Instructor
Dept. of Phy. Ed.
Oregon State College.

APPENDIX B

ADVANCE

CONTROL

BROUGHTON'S ORIGINAL LONDON PRIZE RING RULES

1. That a square of a yard be chalked in the middle of the stage; and every fresh set-to after a fall or being parted from the rails, each second is to bring his man to the side of the square, and place him opposite to the other, and till they are fairly set to at the lines, it shall not be lawful for one to strike the other.

2. That, in order to prevent any disputes, the time a man lies after a fall, if the second does not bring his man to the side of the square within the space of half a minute, he shall be deemed a beaten man.

3. That in every main battle, no person whatever shall be upon the stage except the principals and their seconds; the same rule to be observed in by-battles, except that in the latter, Mr. Broughton is allowed to be upon the stage to keep decorum, and to assist gentlemen in getting to their places, provided always he does not interfere in the battle; and whoever pretends to infringe these rules to be turned immediately out of the house. Everybody is to quit the stage as soon as the champions are stripped, before set-to.

4. That no champion be deemed beaten unless he fails coming up to the line, in the limited time; or, that his own second declares him beaten. No second is to be allowed to ask his man's adversary any questions, or advise him to give out.

5. That in by-battles, the winning man to have two-thirds of the money given, shall be publicly divided upon the stage notwithstanding any private agreements to the contrary.

6. That to prevent disputes in every main battle, the principals shall, on the coming on the stage, choose from among the gentlemen present, two umpires, who shall absolutely decide all disputes that may arise about the battle; and if the two umpires cannot agree, the said umpires to choose a third, who is to determine it.

7. That no person is to hit his adversary when he is down, or seize him by the hair, the breeches, or any part below the waist; a man on his knees to be reckoned down.

MARQUIS OF QUEENSBERRY RULES--DRAFTED IN 1865

Rule 1-To be a fair stand-up boxing match in a twenty-four foot ring, or as near that size as practicable.

Rule 2-No wrestling or hugging allowed.

Rule 3-The rounds to be of three minutes' duration, and one minute's time between rounds.

Rule 4-If either man fall through weakness or otherwise, he must get up unassisted, ten seconds to be allowed him to do so, the other man meanwhile to return to his corner, and when the fallen man is on his legs the round is to be resumed, and continued till the three minutes have expired. If one man fails to come to the scratch in the ten seconds allowed, it shall be in the power of the referee to give his award in favor of the other man.

Rule 5-A man hanging on the ropes in a helpless state, with his toes off the ground, shall be considered down.

Rule 6-No seconds or any other person to be allowed in the ring during the rounds.

Rule 7-Should the contest be stopped by any unavoidable interference, the referee to name the time and place as soon as possible for finishing the contest, so that the match must be won and lost, unless the backers of both men agree to draw the stakes.

Rule 8-The gloves to be fair-sized boxing gloves of the best quality and new.

Rule 9-Should a glove burst, or come off, it must be replaced to the referee's satisfaction.

Rule 10-A man on one knee is considered down, and if struck is entitled to the stakes.

Rule 11-No shoes or boots with springs allowed.

Rule 12-The contest in all other respects to be governed by revised rules of the London Prize Ring.