PIONEERS OF MODERN PHYSICAL TRAINING

FRED EUGENE LEONARD

PIONEERS OF MODERN PHYSICAL TRAINING • FRED EUGENE LEONARD

Publisher's Note

The book descriptions we ask booksellers to display prominently warn that this is an historic book with numerous typos, missing text, images and indexes.

We scanned this book using character recognition software that includes an automated spell check. Our software is 99 percent accurate if the book is in good condition. However, we do understand that even one percent can be a very annoying number of typos! And sometimes all or part of a page is missing from our copy of a book. Or the paper may be so discolored from age that you can no longer read the type. Please accept our sincere apologies.

After we re-typeset and design a book, the page numbers change so the old index and table of contents no longer work. Therefore, we often remove them.

We would like to manually proof read and fix the typos and indexes, manually scan and add any illustrations, and track down another copy of the book to add any missing text. But our books sell so few copies, you would have to pay up to a thousand dollars for the book as a result.

Therefore, whenever possible, we let our customers download a free copy of the original typo-free scanned book. Simply enter the barcode number from the back cover of the paperback in the Free Book form at www.general-books.net. You may also qualify for a free trial membership in our book club to download up to four books for free. Simply enter the barcode number from the back cover onto the membership form on the same page. The book club entitles you to select from more than a million books at no additional charge. Simply enter the title or subject onto the search form to find the books.

If you have any questions, could you please be so kind as to consult our Frequently Asked Questions page at www.general-books.net/faqs.cfm? You are so welcome to contact us there.

General Books LLC™, Memphis, USA, 2012. ISBN: 9780217531443.

PREFACE

The first edition of P1oneers Of Modern Phys1cal Tra1n1ng was merely a reprint in book form of a series of biographical sketches which appeared in *Physical Training* from month to month between January of 1909 and June of 1910. They were begun with no thought of completeness, and with the idea of furnishing a full-page portrait faced by a page of text. After two instalments had been prepared it was decided to lengthen the remaining articles in order to allow a more adequate treatment. Certain persons whom I desired very much to include in the list were omitted at the time owing to lack of available portraits or the necessary biographical data, or because the historical background involved had not yet been sufficiently studied. None of these reasons exists any longer, and I have therefore added the names of *Amoros, Hjalmar Ling, Brosius,* and *Beta.* Other sketches have been expanded to make the significance of the subject more apparent and to secure a better balance of parts. The *Introduction* and *Appendix* are taken from an article published in *Physical Training* for January and February of 1912 and in the *American Physical Education Review* for March and April of the same year. It is hoped that in its present form the book may serve as an introduction to the history of physical education, and commend itself to teachers of that subject who desire a manual for use in normal schools, leaders' classes, and summer schools.

F. E. Leonard.

October, 1914.

s INTRODUCTION

Since all human institutions and agencies as they exist today represent only the latest stage in a long process of growth and development, each is best understood when we turn back to the past and retrace the significant steps in its evolution to present forms. Such a study of beginnings yields many a useful clue to what would otherwise defy analysis. It gives perspective in assigning values to new solutions brought forward for old problems, and it enables one to start where others left off, profiting by their successes and avoiding their mistakes.

In ancient *Greece*-there were two strongly contrasted types of education, unlike in aim and method. The earlier Doric or Spartan type had discipline for its key-note and aimed to produce a citizen-warrior. The other and much broader type was the Ionic or Athenian, which became more and more the dominant one throughout Greece and her colonies. It regarded the individual as valuable in and for himself, and sought to promote first of all his full and free development. If we commence our review with Athens, in the fifth century before Christ, we find that each free citizen was required to provide his sons with instruction in gymnastics and music. The former trained primarily the body and the will, the latter, including literary branches as well as music in the narrower sense now conveyed by the term, developed the intellect and the emotions. Thus mind and body were to be educated together, and the end was individual completeness and harmony of parts. The gymnastic exercises practised in private schools (palestrae) and usually given out-of-doors were little more than orderly contests in wrestling, running, jumping, and throwing the spear and the discus. Grown men met for exercise and conversation in the various *gymnasia,* state institutions maintained at public expense and administered by public functionaries. Probably by the end of this century no important Greek town, in the parent land and in the farscattered colonies that dotted the

borders of the Black Sea and the Mediterranean, was without one, at least, of these structures. At the great national festivals, which helped to bind together the politically distinct members of the Greek race, interest was centered chiefly on competitive exercises — running, jumping, throwing the spear and the discus, wrestling, and boxing — between free-born citizens, of pure Hellenic descent and untainted by crime. There were also horseand chariot-races. These athletic contests were the only ones at Olympia, the foremost gathering of them all, and held the chief place at others where musical and literary competitions were added.

This and following figures refer to corresponding numerals in the *Appendix.*

Among the *Romans* " military training and the life of the camp furnished the only systematic bodily discipline. They were practical men, strangers to the Greek passion for beauty, and valued exercise only as it led to robust health and made capable soldiers. The Greek gymnastics never gained a foothold among them, either as a factor in education or in the form of the national games. These had now lost their original character of sacred festivals, and the contestants were professional athletes, tempted by the rich prizes offered, usually of low birth and not averse to trickery and falsehood. The public baths, found in Rome and in every important provincial town in the days of the Empire, present at first glance a striking resemblance to the Greek gymnasia, but one much less real than apparent, and the effect of the institution on Roman life was on the whole an enervating one. Between the pan-Hellenic festivals celebrated in the stadium and hippodrome at Olympia in the time of Pericles, and those" pubTurspectacles which crowded the amphitheatre and circus of the degenerate Roman world during the first centuries of the Chris tian era, the contrast is even greater-The chariot races of the Circus Maximus and the combats in the Colosseum reveal a changed type of civilization and mark the lowest stages of athletic professionalism.

It was inevitable that the early Christians, living for the most part in cities and brought into close and daily contact with all the abominations of the decadent pagan society of the Empire, should exhibit a violent reaction from the prevailing luxury and sensual self-indulgence. In protest against its excesses they sometimes carried their stern self-restraint so far as to deny themselves the common comforts of life and decline to gratify those cravings of the body which are innocent and natural. Through the Alexandrian schools of philosophy they also felt the influence of that fundamental tenet of the Oriental religions which holds that evil inheres in matter, while mind or spirit is essentially divine and pure, that the flesh and the spirit therefore wage perpetual warfare on each other and the body is an enemy to be resisted at every point. Then, too, the persecution to which many converts of the growing Church were subjected kindled an intense religious enthusiasm which welcomed martyrdom and caused pain and torment to be considered meritorious of themselves. After the persecutions ceased the selftorture of the hermit and the monk took their place as a means and measure of human excellence. Mortification of the body thus acquired the dignity of a religious exercise, while the idea of pleasure came to be closely associated with that of vice. In spite of its disastrous physical effects upon the individual and the pernicious consequences of the doctrine among the people at large, *asceticism* soon became a part of the accepted teaching of the Church and the practice of a large proportion of her leaders and adherents.

In the cities of northern Italy, and throughout southern Europe generally, the inroads of the Germanic barbarians in the fourth and fifth centuries were not followed by the complete extinction of the race of lay teachers; but in transalpine Europe, from the sixth till the twelfth century, the Benedictine *monasteries"* were the chief, if not the only seats of learning, and education was almost wholly in the hands of monks of that order. Theological doctrines and religious interests absorbed human thought. Men were trained for the world to come, and the present world was deemed unworthy of attention. The soul was the one object of solicitude, and the body was regarded with contempt, so that there could be no such thing as physical training in schools conducted by the Church. The monastic discipline in all its severity was an essential part of school life.

A succession of influences, and chief among them the Crusades, operating in the eleventh and twelfth centuries, had widened the scope of human interests and produced a vague longing after knowledge which was not to be satisfied by the traditional teaching. Along with the demand for a different type and more advanced grade of instruction there arose here and there famous lecturers, who gathered about themselves great numbers of disciples. Centers were thus created to which other teachers and their followers were attracted, and this in turn led to an informal association of masters and pupils, out of which the *medieval university* developed. In Italy the long-neglected legal system of ancient Rome was studied afresh, the medical sciences were foremost in Moorish Spain, and in the regions of Europe farther north dialectic and philosophy were applied to the study of theology. Teachers were bound by superstitious reverence for authority, however, and as regards treatment of the body the influence of asceticism was still supreme. Provision for lawful amusements was rarely made in university statutes, which appear frequently to have regarded harmless attempts at pleasure with more hostility than they displayed toward actual vice and crime.

But meanwhile the hermit of early Catholic legends had been displaced as a popular hero by the knight. Military Christianity, as typified in the three orders of soldier-monks which had their origin in the twelfth century, could not fail to weaken the hold of the ascetic ideal. *Chivalry?* or the body of law and custom relating to knighthood, prevailed almost universally throughout western Europe between the eleventh

and sixteenth centuries, and in its ideals of war, religion, and gallantry was summed up the whole duty of the gentleman of that age. The system can be traced in part to various customs of the rude German tribes which overran southern and western Europe in the fourth and fifth centuries, developed later under the influence of feudalism; but its final form was not received until the time of the Crusades (1096-1270), when the Church, in order to further her own designs, adopted and modified its practices. The decline of chivalry as a military system, though it began soon after the last Crusade, did not become complete until the fifteenth century. The early training of the knight stood in sharp contrast to the education imparted in the monastery schools. Running, jumping, wrestling, swimming, climbing ropes and poles and ladders, hurling stones, casting the spear, shooting with the bow and the crossbow, wielding the battle-axe, and fencing, at first with dull wooden swords, helped to harden his body and give mastery of its powers. The most essential exercise, however, was horsemanship, including the adroit use of shield and lance, and the ability to endure the weight and overcome the hindrance of full armor. Out of the rough trials of. strength and skill that were a natural occurrence whenever knights met at leisure were gradually developed the tournaments common all over Christendom in the thirteenth and fourteenth centuries, a public spectacle no less brilliant, fascinating, and characteristic of the age than were the pan-Hellenic games, or the gladiatorial shows of the Roman world.

The universities of the Middle Ages made an important contribution to the intellectual advancement of Europe, but it is not till we reach the fifteenth and sixteenth centuries, the period of the *Renaissance* and the *Reformation,* that we find men escaping from a conception of the world and the flesh which associated them with the devil, and from the authority of that theological dogma which centered thought and imagination for centuries upon the rewards and punishments of a future state and meanwhile paralyzed or thwarted every effort to master the resources or investigate the phenomena of the material universe. Among the chief factors in this process of transition from the medieval to the modern world was the Revival of Learning,— that appreciative study of the Greek and Latin classics and all the long-neglected records of ancient civilization which supplied the Western nations with a new ideal of life and culture. Writers on education, influenced by their classical studies and also by the customs of chivalry, which had not ceased to shape the early training of the gentleman, began to speak in commendation of bodily exercise and recognition of its rights to a place in the curriculum, referring repeatedly to ancient Greeks and Romans as authorities or by way of illustration. A famous Italian physician, Hieronymus Mercurialis, in the first part of his treatise on the Gymnastics of the Ancients, published in Venice in 1569, sought to reproduce for his readers the Greek gymnasia and gymnastic exercises.

While the best of the Renaissance writers on education had begun to break away from authority and tradition, and with reason as a guide were groping their way toward a training better suited to the nature and present needs of man than any the past could supply, the fact that their ideas gained currency throughout all Europe, and the way was thus prepared for practical reforms, is very largely due to the powerful influence exerted by *John Locke* and *Jean Jacques Rousseau,* men who belong to the seventeenth and eighteenth centuries. The former published "Some Thoughts en Education" in 1693, and the latter his "fimile," an educational romance, in 1762. Both urge the necessity of some sort of physical training in the scheme of education.

But it was not until 1774, when *Basedow,* filled with thoughts of reform in methods of teaching and determined to found a model school which should embody his ideas and force them upon the attention of educators, opened his " Philanthropinum" in Dessau, on the Elbe north of Leipsic, that we come to the actual beginnings of modern physical training. In this private institution, open to all classes of society, bodily exercise was given a place in the daily program from the start, incorporated into the plan of instruction as an essential factor and entrusted to one of the regular teachers. The first to be introduced were the "knightly exercises,"— dancing, fencing, riding, and vaulting; then followed " Greek gymnastics," apparently nothing more than orderly contests in running, wrestling, throwing, and jumping; and before the school was closed in 1793 most of the forms of exercise advocated since that day had been employed, *i. e.,* simple games and athletic sports, gymnastics, military drill, manual labor and manual training, and school excursions.

A long list of pioneers of the new art now appeared in various parts of Europe. *GutsMuths* taught gymnastics for nearly fifty years (1786-1835) in Salzmann's Educational Institute at Schnepfenthal, and published important volumes on gymnastics, games, swimming, and manual training. Outside of Berlin, from 1810 through 1818, *John* met boys and young men for exercise, beginning with a few pupils and a little portable apparatus, but later preparing and equipping an outdoor gymnasium and playground, and with the help of squad leaders handling a membership of more than a thousand. Out of this voluntary association of " turners" developed thirty years later the popular gymnastic societies *(Turnvereine)* of Germany, which now number over 11,000 and have a total enrolment of more than a million men. *Nachtegall,* in

Oajpnhagerii started a private gymnflilim in *TJOQ,* th t institution in m"1"1n lin1s 'WH'"1 I vhni'i'i'ly to physical training, ad ny'"-hn leadership Den1r)a,rk hprarnp *fhp* first TTnmppiri state rr introduce physical training into its schools as an integral part of the course and to prepare teachers of that subject by offering instruction in theory and methods of fTymnasrii-s Under the patronage of the King of Sweden *Pehr Henrik Ling* opened in 1814 the Royal Central Institute of Gymnastics in

Stockholm, and before his death in 1839 had laid the foundation of Swedish military, medical, and school gymnastics. The last branch was developed into its present form under his son *HjalmarTM* in the third quarter of the century. The Spanish Colonel *Amoros*" devoted himself to teaching gymnastics in Paris from 1817 till 1848; and *CliasTM* born in the United States, but of Swiss and French Huguenot descent, was active in three countries,— Switzerland (after 1815), England (1822-1825), and France (18411848). The chief work of *Spiess,* the father of school gymnastics in Germany, was accomplished in the years 1833-1855.

In the *United States* the different systems or sorts of physical training which have been brought forward for trial, and the agencies which have promoted its spread, fall into three groups, centered about 1830, 1860, and the decade from 1880 to 18yo. The first includes Captain Alden Partridge and his military academies'-'"; the introduction of the Jahn gymnastics and the opening of school, college, and city or public outdoor gymnasia under the direction of the German refugees *Beck, Follen,* and *Lieber* ; the attempt to provide manual labor as a system of exercise in educational institutions -; and the earliest use of " calisthenics " for girls and women, by Catharine Beecher in her schools in Hartford and Cincinnati. To the second belong the gymnastic societies formed by native Americans on the model of the German *Turnvereine;* the building of the first college gymnasia, at Amherst, Harvard, and Yale, and the establishment of a chair of hygiene and physical education at Amherst (see *Hitchcock);* the lectures and exhibitions of Dr. Windship, the advocate of heavy lifting; the "new gymnastics" of *Dio Lenns*; the incorporation of military drill and instruction in colleges and universities organized under the terms of the Morrill Land Bill of 1862 ; and our earliest acquaintance with the exercises of the "Swedish Movement Cure" (medical gymnastics). In the third group we find the system introduced by *Dr. Sargent* at Hemenway Gymnasium of Harvard University ; the organization of the American Association for the Advancement of Physical Education ; the report on physical education in American colleges and universities prepared by *Dr. Hartwell* for the Bureau of Education in 1885; the systematic efforts of German-American gymnastic societies and the North American *Turnerbund* to make their work known among native Americans (see *Brosius* and *Betz)* ; Dr.,Wey's use of physical training with criminals and dullards at the Elmira (New York) Reformatory ; the starting of training courses for physical directors in Young Men's Christian Associations, first at Springfield, Mass., and later in Chicago, and the appointment of a secretary for that phase of Association activity by the International Committee (see *Roberts* and *Gulick)*; the Boston Conference of 1889, and the introduction of Swedish school gymnastics into this country (see *Posse* and *Hartzuell)*; the opening of a number of normal schools and summer courses for the training of teachers; and the rapid spread of interest in athletic sports and active games.

The most important among these pioneers of modern physical training in Europe and America form the subjects of the twenty chapters which follow. A guide to further reading along the lines indicated in this brief summary is furnished in the *Appendix.* JOHANN CHRISTOPH FRIEDRICH GUTSMUTHS

The first school in modem times to give physical training a place in its daily program seems to have been that opened by the educational reformer Johann Bernhard Basedow (1723-1790) in 1774 at Dessau, in the German Duchy of Anhalt. He assigned to one of the teachers, Johann Friedrich Simon, succeeded in 1778 by Johann Jakob Du Toit, as a part of his regular duties the direction and supervision of the exercises of pupils. Chr1st1an Gotth1lf Salzmann (17441811), after three years of teaching at the Dessau school, withdrew to open (1784) a similar "Educational Institute" on the country estate of Schnepfenthal, on the north slope of the Thuringian Forest about ten miles southwest of Gotha. The direction of the daily gymnastic lesson and the Sunday games of pupils, entrusted in 1785 to Christian Carl Andre, was turned over a year later to Johann Chr1stop11 Fr1edr1ch Gutsmuths (1759-1839), who thus became, not the first, but the fourth teacher of gymnastics in modern times in a school open to all classes of society. The pre-eminence of GutsMuths among pioneers of modern physical training does not rest, therefore, upon priority in time, but is due rather to his long period of service — almost fifty years,— to the character and results of his teaching and the favorable impression which it made upon visitors, and to the series of volumes from his pen which formed what has been aptly called the first normal school of physical training for other teachers, and not in Germany alone, but elsewhere in Europe and even beyond its borders.

Consult the *American Physical Education Review* for March, 1899 (Vol. IV. , pp. 1-18) and June, 1904 (Vol. IX., pp. 89-96 and 104-107); and *Mind and Body* for January, 1911 (Vol. XVII., pp. 321-326).

GutsMuths, son of a tanner in moderate circumstances, was born in the ancient Prussian town of Quedlinburg. In the spring of 1773 his father died, and four years later he became private tutor in the family of Dr. Friedrich Wilhelm Ritter, a respected physician in the town. For three years, beginning in 1779, he was a student at the university of Halle, pursuing courses not only in theology, to which he originally planned to devote himself, but also in mathematics, physics, modern languages, and pedagogy. Returning then to Quedlinburg, he resumed his old position in the Ritter household. In June of 1785, a year after the death of his patron, GutsMuths arrived at Schnepfenthal with the widow and two of her sons, Karl (afterwards a celebrated geographer) and an older brother. Both boys were received by Salzmann as pupils, and GutsMuths himself was persuaded to remain as a permanent assistant. By the end of the month he had taken up the duties which were discharged uninterruptedly there-

after until within a few weeks of his death, more than a half-century later. At the start he gave instruction in various elementary subjects, but especially in geography and the French language. Gymnastics was added in July of 1786, and within the next decade he had begun to confine himself to his favorite subjects, gymnastics (until the summer of 1835), manual training, and geography. After 1802 he was swimming teacher as well. The daily exercises occupied the hour from eleven to twelve, and were usually practiced out-of-doors on a neighboring hill, where an open space under the oaks had been provided with the necessary apparatus.

Many visitors went away to spread the news of methods followed here; but even more influential was the long series of books published by GutsMuths, some of which deservedly rank as classics. They include *Gymnastics for the Young* (1793; a second edition, in 1804, was " re-written throughout and much enlarged," so as to be essentially a new work), a remarkable book on *Games* (1796; a second edition appeared the same year, and a third in 1802), manuals of *Swimming* (1798; second edition in 1833, "revised, improved, and enlarged") and *Mechanical Avocations* (1801; second edition in 1809), a *Book of Gymnastics for the Sons of the Fatherland* (1817), and a *Catechism of Gymnastics* (1818). The earliest work, our first modern manual of gymnastics, was translated, in whole or part, into Danish (1799), English (London, 1800, and Philadelphia, 1802 — wrongly attributed to Salzmann on the title page!), French (1803), Dutch (1806), and Swedish (1813). In addition to his books on physical training GutsMuths wrote numerous ones devoted to geography, and rendered an important service to educational science through the *Library of Pedagogical Literature* which he edited and published in the years 1800-1820 (53 volumes).

II FRANZ NACHTEGALL

Denmark was the first European state to introduce physical training into its schools as an essential part of the course and to prepare teachers of that subject by offering systematic instruction in theory and method of gymnastics. The leader in this movement, and its director for more than forty years, was Franz NachTegall (1777-1847), the son of a Copenhagen tailor. His early education was received in a private school, and he had begun the study of theology in the Danish university when his father's death imposed upon him the support of himself and an invalid mother. For a time he gave private lessons in Latin, history, and geography, but the small pay necessitated such long hours that his health began to suffer. From boyhood he had been interested in forms of physical activity, and as a university student gained considerable proficiency in fencing and vaulting. Inclination, therefore, and the reading of *Gymnastics for the Young,* published by GutsMuths in 1793, started him upon what was to become a life-work. Early in 1798 he organized a gymnastic club of university students and tradesmen, and the skill displayed as their leader brought him a year later an invitation to give lessons in the private school which Court Chaplain Christiani had opened four years before, under the influence of Basedow and his followers. A rival institution, which Nachtegall had himself attended as a boy, soon secured a share of his time for the same purpose, and other schools in Copenhagen, public as well as private, followed the example of these two, so that by 1805 at least nine were furnishing instruction in gymnastic exercises to their pupils.

Consult the *American Physical Education Review* for June, (Vol. IX., pp. 97-99 and 107, 108).

On the 5th of November, 1799, having definitely decided to give himself wholly to the new calling, Nachtegall opened a private outdoor gymnasium, the first institution in modern times devoted exclusively to physical training. The five pupils with whom he began had increased to 25 by the end of the year, and in the winter of 1803-04 the number reached 150, both children and adults. When in 1804 the King appointed him professor of gymnastics in the University, he had already given, for two years, lectures on the history and method of physical training, with the help of an assistant, a former pupil, to an audience made up of students there and in one of the teachers' colleges, with an admixture of military men. Meanwhile the training of military and naval cadets and the instruction in gymnastics given in schools for non-commissioned officers had also been entrusted to him, and when the King established an Institute of Military Gymnastics, by decree of August 25, 1804, Nachtegall became its first director. From this as a center the new teaching was to be spread throughout the entire army and navy, including the Norwegian regiments. Four years later civilians were also admitted to courses in the Institute, which thus became a general normal school of gymnastics, attempting to do for the schools and the people at large what it had already accomplished for the army, and to prepare instructors for teachers' colleges and the elementary schools especially. This double function, civil and military, it continued to discharge until about 1816.

A law passed in 1814 decreed that every school in Denmark should provide grounds and apparatus for gymnastics, and that wherever the teachers were able to direct it the children should be given an hour of exercise each day, in addition to the regular schedule. Nachtegall was appointed Director of Gymnastics in 1821, his duties extending to the schools of the army and navy as well as to civil institutions; but progress in the latter was very slow until 1828. In that year another attempt to provide a general normal school of gymnastics was made, by arranging to have children from one of the elementary schools serve as a sort of model school in connection with the Institute of Military Gymnastics, whose pupils, civil and military alike,'could thus be furnished practice in the actual handling of classes. Short courses for civilian teachers were also arranged, but the Institute remained a military one, nevertheless, in its main plan and purpose, and not until 1911 did Denmark possess a State Normal School of Gymnastics

intended for school teachers exclusively and with a building and teaching staff of its own. The year 1828 was also noteworthy for the publication of a new law which made mandatory the introduction of physical training in all Danish elementary schools, and for the appearance of a handbook prepared by Nachtegall for their use,— the first manual of school gymnastics to be sanctioned by the government of any European country. Four thousand copies were distributed throughout Denmark at the King's expense, and it was estimated that by the close of 1830 two thousand schools had already complied with the law. In the year following the higher schools for boys were authorized to take the same step. Most of them promptly did so, and Nachtegall issued in 1834 a second manual to meet their needs. Both books were afterwards translated into German. He also opened, at the Military Institute and with royal approval, an experimental course in gymnastics for girls, in 1838, and within another year this developed into a normal school for the preparation of women teachers.

Nachtegall resigned his position as head of the Institute of Military Gymnastics in 1842, but continued to serve as Director of Gymnastics in Denmark until his death five years later. He was not the inventor of a system of his own, but borrowed his types of exercise from Dessau and Schnepfenthal, and used the manuals of GutsMuths as a guide (a Danish clergyman, V. K. Hjorth, had published in 1799 a translation of the second volume of *Gymnastics for the Young,* i.e., the portion which constitutes a practical handbook). He was a good teacher and organizer, tactfully winning the good-will and support of leading men, skilful in accommodating himself to actual conditions, and indefatigable in his efforts to advance the work to which he had committed himself with so much devotion. Denmark owes it to him that during the first third of the nineteenth century she held the leading place among European nations in the realm of physical training. Beginning in 1884, however, the Ling or Swedish system of school gymnastics has gradually replaced the older GutsMuths-Nachtegall one in the sister state, and forms the basis of the official Danish *Handbook of Gymnastics* issued in 1899.

when not thus engaged, and later dividing his time between Stockholm and the University of Upsala. The next five years (1799-1804) he passed in Copenhagen, continuing at first his linguistic studies in the University and the Royal Library and later engrossed in the old Norse mythology. It was during this residence in the Danish capital that three years of practice in the fencing school conducted by two Frenchmen made him a master of that art, and that visits to Nachtegall's newly opened private gymnasium introduced him to the GutsMuths gymnastics.

In the fall of 1804 and near the close of his twentyeighth year Ling returned to Sweden, to become fencing master at the University of Lund. There he remained for eight years, and meanwhile applied himself to the study of anatomy and physiology and worked out his original systems of bayonet fencing and gymnastics. Invitations to introduce the double art of fencing and gymnastics in neighboring cities in the course of the long summer vacations were repeatedly received and accepted. The condition of Sweden just at this time was a desperate one. French and Russian incursions had deprived her of territory south and east of the Baltic, and other enemies threatened on the west and in the southern provinces. Ling was always an intense patriot, eager to see his countrymen strong in body and soul and thus prepared to thwart the foe. This was the inspiring motive of his writings and his gymnastics alike. Study and experiment had taught him something of the human body and its needs, and helped him to select and apply his exercises intelligently with these needs in view. Nachtegall, in Copenhagen, had already begun to train teachers of gymnastics for the army and the schools of Denmark, and now Ling conceived the idea of opening in Stockholm a central training school from which all Sweden should be supplied with teachers of the new art. With this plan in mind he went up to the capital early in 1813 and handed to the recently appointed Committee on Education a written proposal for the new institution. A royal letter of May 5 formally approved the plan. Ling was made director at a fixed salary, and given a grant for the purchase of equipment and an annual allowance to cover the rent of necessary rooms. In 1814 the "Royal Central Institute of Gymnastics "— so named by the King — was ready to begin operations, and here for the remaining twenty-five years of his life Ling was busily engaged in the elaboration of his ideas. He was the author of a long series of dramatic and other poetical works, which won for him the great prize of the Swedish Academy and membership in that distinguished body. He also received the title of Professor, and was decorated by the King with the Order of the North Star. The men who assisted and followed Ling as teachers at the Institute have contributed much to the development of gymnastics in the three directions which he indicated. As one of them has said, "His greatest service to gymnastics was the attempt to give it a scientific basis, and it must therefore change and develop with every advance in the sciences upon which it rests." During his lifetime he had issued small manuals of gymnastics and bayonet fencing for use in the army, at a time when the dearth of trained teachers and properly equipped gymnasia precluded the use of any but the simplest exercises and such as required little or no apparatus. The " General Principles of Gymnastics," a treatise begun in 1831, was published a year after his death in the incomplete and often fragmentary form in which he had left it, and possesses little present interest to any one but the student of history.

Ling's successors as director of the Central Institute, and their periods of service, have been the following: Lars Gabriel Branting (1799-1881), 1839-1862; Col. Gustav Nybbeus (1816-1902), 1862-1887; Capt. Lars Mauritz Torngren (1839-1912), 1887-1907; Col. Viktor Gustav Balck (1844-). 1907-1909; and Major Nils Fredrik Sellen

(1859-), since 1909. *Branting* devoted himself chiefly to the development of medical gymnastics in accordance with the theories of his predecessor, and brought that branch to a high degree of perfection. He also worked out a terminology which with a few changes is still employed in Sweden. It was at this period, too, that the work of the Institute began to awaken interest in other countries. Two Prussian army officers, Lieutenants Rothstein and Techow, were sent to Stockholm to take the regular course of instruction in 1845-46, and Rothstein afterwards wrote extensively on the Ling gymnastics, and in 1851 became the first director of the Berlin "Central Institute of Gymnastics," founded. on the pattern of the Swedish school but without its department of medical gymnastics. Many other foreigners came for visits of varying duration, and physicians, especially, were attracted by the new system, among them Doctors Eulenburg, Neumann, and Melicher of Germany, and Dr. M. Roth of London. Under *Col. Nyblams* the course at the Institute was increased from one year to two years of six months each, a regular course for women was opened, and in 1864 the school was reorganized into three sections, the educational, military, and medical, each with its head teacher. The first man to be put in charge of the section of school or educational gymnastics was Ling's son *Hjalmar (q.v.). Capt. Torngren* occupied the same position, succeeding Hjalmar Ling in 1882, and while he was director the school year was lengthened and a third year (medical gymnastics only) was added to the course. *Col. Black* had been head teacher in the section of military gymnastics since 1887. He has been an ardent advocate of outdoor and other sports for young and old, organizing societies for their promotion and editing a series of a dozen illustrated volumes devoted to the various forms. He has also done much to promote the formation and spread of popular gymnastic societies, and to make Swedish gymnastics known in other countries by accompanying selected groups of fellow countrymen who have given exhibitions at foreign capitals. In 1910 the King appointed a special committee of six to propose plans for another reorganization of the Central Institute. Their elaborate and statesmanlike report, presented two years later, recommends a great number of radical and farreaching changes.

This report is summarized in the *American Physical Education Review* for March, 1914 (Vol. XIX., pp. 192-199).

of the class-room, and his country plainness, not to say roughness, of speech and manners and want of familiarity with city ways, together with his independent spirit and the lack of intimate companionship with boys of his own age hitherto, led to repeated misunderstandings. The university career, also, which followed (1796-1803, in Halle, Jena, and Greifswald), while it revealed a native capacity for leadership and a certain rugged eloquence in public speaking, was interrupted by frequent excursions on foot to various parts of Germany, and rendered stormy by constant warfare with the student clubs, whose narrow provincialism, dissolute life, and frequent dueling roused him to an almost fanatical opposition. This also brought him more than once into conflict with the academic authorities. His habits of study, too, were desultory, and few of the courses begun were completed in orderly fashion.

Now succeeded a period of quiet teaching and literary labors, during which the man gathered himself together, formed those settled convictions which became the mainspring of his future career, and showed the underlying strength and soundness of his character. For two years he was a private tutor in Mecklenburg, and afterwards spent some months at Gottingen and Jena, completing a volume of philological contributions which embodies material collected in all parts of Germany during the excursions of his university days. It seems that Jahn had hoped to obtain a footing in the university at Gottingen; but in the fall of 1806, while he was sojourning in the Harz Mountains, his plans were suddenly changed. Napoleon's incursions and his insolent treatment, which were threatening the very existence of Prussia, had at last compelled the King to take up arms against the French. Learning that war was inevitable, Jahn immediately hastened toward the gathering army to offer his services; but he reached Jena only in time to see the last struggle and the crushing defeat of October 16, and at once joined the fleeing soldiery as a "volunteer fugitive." Frederick William's troops had proved an easy prey for the French. The great fortresses were surrendered one by one and garrisoned by the enemy's forces, the royal family fled from Berlin, and by the Treaty of Tilsit (July, 1807) Prussia lost half her territory and became virtually a mere province of France. A volume on "German Nationality," his chief literary work, which Jahn prepared for publication in the course of the two years of retirement which followed this treaty, gives forcible expression to his controlling passion for the German language, customs, and history, and his intense desire to see Germany bound together into one strong nation, able to throw off the hated foreign yoke. Late in December of 1809 Jahn arrived in Berlin, where, as he says, love for the fatherland and his own inclination led him again to teaching. He at first received some private pupils, the next Easter entered a training school for teachers, and also began to give instruction in two schools for boys. The nine years which follow (1810-1818) mark the culmination of his career. It was the custom at one of these schools for teachers to spend some of the Wednesday and Saturday half-holiday afternoons out-of-doors with pupils of the lower classes. In the spring of 1810 Jahn began to make this his practice, meeting the boys from time to time outside the city gates for games and simple exercises like running, jumping, throwing, and wrestling, or going farther with them to the *Hasenheide,* a hilly and wooded stretch of unused land on the southern slope of the Spree valley. Older scholars were welcomed whenever curiosity and inclination tempted them to join the band, and the numbers

rapidly increased from week to week. Jahn knew how to vary the exercises and make each one interesting, and the moments of rest were filled with stories drawn from history and from his own experiences. By winning the respect and love of his young companions he made harmony and discipline prevail where dissension had been the rule. The next spring an area at the *Hasenheide* was fenced in and equipped with simple apparatus for hanging, climbing, jumping and vaulting exercises. The attendance had increased to eighty or a hundred, and later in the summer it rose to two hundred. The exercises were not yet orderly or organized, but every boy was an inventor and shared the result with others, learning from them in turn. It was hardly in Jahn's nature to be systematic, and such a thing as a formal school of gymnastics was foreign to his purpose. The essential thing was the active, wholesome, common life in the open air, and especially the games, training the boys to work together in harmony, and he sought also to kindle in them a public spirit which might one day be of service to the nation. The next year new and larger grounds were laid out, the equipment received numerous additions, and the attendance reached five hundred. Jahn still worked alone, for the most part, assisted, however, by the older and more experienced pupils, whom he was now able to employ as squad leaders.

societies especially, took an active part. In carrying out their policy of repression the various governments again disbanded or put under careful supervision the gymnastic societies, and not only those directly concerned in disturbances, but others which had been welldisposed and preferred to keep the movement free from partisan politics. Toward the close of the fifties signs of life began to multiply, however. The war of France and Sardinia with Austria (1859) and uncertainty as to the future relations between France and the German states helped to rouse the slumbering societies and fill abandoned exercising grounds once more. At the first general German convention and festival, held at Coburg June 16-19, 1860, more than a thousand adult members were present, representing 139 cities and villages. Formal association into a national body was impossible as yet, but notwithstanding this a feeling of union was established and a great impulse was given to further growth. Finally, on July 20 and 21, 1868, delegates assembled in Weimar for the fourth general convention were able to bring about the definite organization of the "*Deutsche Turnerschaft,*" a firm federation of all German gymnastic societies, including the Austrian Germans. During the Franco-Prussian War of 1870-71 fifteen thousand members followed the colors to the field and many gymnasia were converted into hospitals. But in spite of this temporary check the war brought what Jahn and his followers had looked forward to for sixty years and more — the unification of Germany. Experiences of march, battle field, and camp had driven home to the minds of all the need and value of physical efficiency as nothing else could do it; and after the formation of the new Empire the throne of Prussia in 1840, when the old gymnastics began to revive, Jahn followed the development of the movement with interest and received hospitably its promoters who sought him out at his home; but he no longer took an active part in the work. His countrymen still hold him in grateful and loyal remembrance, as the apostle of German unity and the man who gave to the German people a love for gymnastics. The one hundredth anniversary of his birth and the fiftieth anniversary of his death were celebrated throughout the entire land. Monuments in his honor have been erected in Berlin, Lanz, Freyburg and many other places; a memorial gymnasium covers his grave at Freyburg, and in the "Jahn Museum" there numerous relics of the man and his work have been brought together for permanent preservation and display.

One sign of the quickened national and political life under Frederick William IV. was a general revival of the Jahn gymnastics. The incorporation of physical training in school programs led to the formation of societies of men and older boys, in which the bond of union was at first merely an agreement to meet for exercise at certain fixed hours; but this was soon followed by the adoption of by-laws, the appointment of boards of directors, and the fixing of definite dues. Partly as a result of excursions and exhibitions new societies sprang up everywhere, until at the close of the decade they numbered nearly three hundred. The desire for union which early showed itself was met by holding district conventions and gatherings for gymnastic exercises. But a second period of reaction set in with the revolutionary movements of 1849, in which many of the members, of Saxon and South German V

FRANCISCO AMOROS

The father of physical training in France was Colonel Francisco Amoros (1770-1848), born in Valencia of Spanish parents and for more than half his life a citizen of Spain. Membership in a noble family — his father was Marquis of Sotelo — gained him admission to the army as a cadet at the age of nine, and gallant conduct and distinguished service in Algeria (1791) and during the wars of Spain as a member of the European coalition against France (1793 and 1794) brought rapid promotion through the grades of lieutenant, adjutant, and aide-de-camp to that of captain (1794). After several years in the Ministry of War he was appointed Secretary to King Charles IV. (1802), and a year later given the rank of colonel and made a member of the Council for the Indies.

Towards the end of 1806 the King established at Madrid a Pestalozzian Institute, which opened with a hundred pupils between the ages of five and sixteen. In the following year he placed Amoros at its head, as Director, entrusting to him at the same time the education of one of the princes. From the start the physical training of the children at the Institute was made a matter of prime importance, and the efforts of Amoros in this direction met with marked success. But soon this work was violently interrupted. A popular uprising in 1808 compelled King Charles to abdicate in

favor of Crown Prince Ferdinand. A few months later Napoleon appeared upon the scene, drove Ferdinand from the throne, and reduced Spain to the condition of a French dependency under his own brother, Joseph Bonaparte, as King (1808-1814). Amoros, who had sided with the old king against the son, now found himself drawn into the circle of the invaders, and was soon high in the favor of the new administration, discharging to the entire satisfaction of his superiors the duties of Minister of Police, in Andalusia, and Royal Commissioner first in four Spanish provinces and later in Portugal (1811). Then followed the fall of Napoleon and the restoration of Ferdinand to the throne of Spain (1814), and Amoros, proscribed as a rebel, was forced to join the French army in its flight across the border of his native land.

Reprinted, with a few changes, from the *American Physical Education Review* for June, 1904 (Vol. IX., pp. 99-102. See also, in the *Review,* pp. 108. 109).

After a few months of uncertainty he seems to have made up his mind, once for all, to undertake the introduction of physical training in his adopted country, and having made the choice he threw himself into the new work with all his unusual gifts of body and mind and for thirty years held unceasingly to his course. In July of 1816 he became a naturalized citizen of France. The next year with the help of influential friends he was able to open his first (outdoor) gymnasium, at the private school of M. Durdan, rue d'Orleans 9 (rue Daubenton) Paris, not far from the Jardin des Plantes. A public exhibition of the work of his pupils given July 2, 1818, led the Minister of War to send twelve city firemen to him twice a week for a four-months' course of gymnastic training, and afterwards a number of picked men from the army were detailed for the same purpose. The next step was the laying out of a great open-air gymnasium at the Place Dupleix, in the Park of Grenelle and close to the Military School and the Champ de Mars. The plans were those of Amoros, and when the new "Gymnase normal militaire" was ready for use, in 1820, he was at once made its Director, and the sum of sixty thousand francs a year was allowed for its maintenance. The chief object in view was to train teachers of gymnastics for the army, and during four days of each week the grounds were given over to sections of the infantry regiments of the Royal Guard, and afterwards to troops of the line stationed in Paris; but in the absence of a civil gymnasium the Minister of the Interior arranged with the Minister of War for the free admission of pupils from the royal schools and colleges, for whose use, and for the private pupils of the Director, Thursdays and Sundays were accordingly reserved. At the same time a special gymnasium was provided for the city firemen, with Amoros at its head.

The next decade was one of incessant application to the tasks thus laid upon him, and yet he was able to signalize its close by the publication of a "Manuel d'fiducation physique, gymnastique et morale" (Paris, 1830), in two volumes (12, 488 and 528 pp.), with an atlas of fifty plates containing more than three hundred figures. This work won for him a prize of three thousand francs from the Royal Academy of Sciences. In 1831 the Minister of War conferred on him the title of Colonel in the French army and made him Superintendent of Gymnasia, at an annual salary of nine thousand francs. But soon afterwards the tide of success began to turn. The original allowance of 60,000 francs for the Grenelle gymnasium had been reduced to 41,500 francs in 1826, in 1832 the Chamber of Deputies reduced it still further, first to 30,000 and then to 20,000 francs, and disagreements between Amoros and the authorities finally led the government to close the institution altogether, in the last days of 1837. Meanwhile, however, he had opened (1834) a new "Gymnase civil orthosomatique " in Rue Jean-Goujon, just off the Champs-filysees and near the present Grand-Palais des Beaux-Arts. Here for fourteen years longer he continued to teach, and in 1846 and 1847 still meeting non-commissioned officers for courses of six months' duration, after which they returned to their regiments to act as instructors there. On the 8th of August, 1848, the year in which a second and revised edition of the Manual appeared, he died in Paris, and was buried in the Cemetery of Montparnasse. Delegates from the French gymnastic societies and large numbers of teachers of gymnastics assembled at that spot in 1880 to celebrate the 110th anniversary of his birth (February 19, 1770), and erected a monument to mark his grave.

When one recalls the advanced age (forty-four) at which Amoros undertook a new work in the midst of a strange people, and the disturbed political conditions in France between the downfall of Napoleon and the Revolution of 1848, his large measure of success becomes all the more remarkable. He laid the foundation of French military and school gymnastics, and his Manual remains to-day one of the best on its subject. His system, although it can be traced to the influence of Pestalozzi, displays much originality. He devised a great variety of apparatus, made much of singing in connection with exercise, and always emphasized the moral effects to be secured by physical training properly applied. Former pupils and associates of his, Col. d'Argy and Napoleon Laisne, were instrumental in founding (1852) the Military Normal School of Gymnastics at Joinville-le-Pont, on the Marne near Paris, and there his influence continued to be felt. For years it supplied not only the army but many elementary and higher schools with teachers.

VI PHOKION HEINRICH CLIAS

Although his influence has not been so far-reaching as that of GutsMuths, Nachtegall, Ling, and Jahn, Cllas (1782-1854) nevertheless deserves honorable mention for his ability as a practical gymnast, his efficiency as a teacher, and the important service he rendered as a pioneer of physical training in three European countries. His father had emigrated from Switzerland in 1770 to settle in what were then the English colonies in North America, and

after serving as an officer in the War of Independence had left the army to enter business in Boston, where the boy was born. The mother, descended from an old French Huguenot family, died soon afterwards, and the father in 1791, while he was on the way to Holland with his two sons, to place them in a famous school in Groningen. The younger Clias, finding school life irksome, ran away after a few years, became cabin boy on a Dutch vessel, fell into the hands of the English as a prisoner of war (1803), and upon his release led a wandering life in Holland and Northern Germany until 1809, when he married the daughter of a wealthy citizen of Oldenburg, near Bremen. The death of his wife the next year was followed by his removal to Berne, in his father's native land.

Consult the *American Physical Education Review* for June, 1904 (Vol. IX., pp. 102-104 and 109, 110).

In 1814 Clias, who had meanwhile become an officer in the Swiss light artillery, introduced such exercises as vaulting, swimming, and wrestling among his troops in the hope of thereby keeping them out of mischief and at the same time developing their efficiency. The following winter he applied himself to preparation for what he had determined to make his future calling, and in the spring of 1815 obtained permission to give free instruction in gymnastics three hours a week to boys in the orphan asylum at Berne. His success here and with his troops led the city authorities to confer the title Professor of Gymnastics and Riding Master at the Academy. The number of his pupils now steadily increased, and teachers trained under him found employment in various Swiss cantons. A small manual of gymnastics, written in German, was published in 1816 and shows his indebtedness to the writings of GutsMuths.

Attempts to gain a footing in Paris in 1817, and again two years later, proved unsuccessful; but upon returning to Switzerland and his work at Berne he was given an opportunity to test the value of his system upon three companies of light riflemen, and this experiment attracted the attention of some English officers. As a result of their reports and of letters sent home by the English minister, he was induced to go to London in 1822. The reception accorded to him there was most flattering. The King gave him the rank of captain and made him superintendent of physical training in the royal military and naval schools, and he also taught in the Charterhouse public school and in numerous private families; so that in 1823 the number of his pupils is said to have been no less than fourteen hundred. A French version of his manual, published in Paris in 1819, had been received with some favor, and an English one which now appeared ("An Elementary Course of Gymnastic Exercises," London, 1823) soon reached a fourth edition (1825). In the latter year he was struck by a falling pupil and so severely injured that it became necessary to go into retirement for a time. He therefore left England and returned to lierne.

It was not until 1841 that Clias emerged again from comparative obscurity. The practice of medical gymnastics, which he had continued throughout the interval, drew him then across the French border, to Besancon, and there in spite of his almost three score years he was soon busily engaged as teacher of gymnastics in various city schools, at the normal school, and among the soldiers of the garrison. An appointment (1844) to the coveted position of Superintendent of Gymnastic Instruction in the elementary schools of Paris brought another brief period of satisfied ambition, terminated by the Revolution of 1848. Returning once more to Switzerland he spent his last years among the scenes of his earliest successes and retained to the very end his active interest in gymnastics.

VII ADOLF SPIESS

In Germany there is no imperial bureau of education; but though each of the twenty-six states manages its own school affairs independently, there is general uniformity in the type of physical training introduced everywhere into both elementary and secondary schools. This differs widely in its nature from Jahn's work in the outdoor gymnasium near Berlin, and reflects instead the influence exerted by the example and teaching of Adolf Spiess (1810-1858). Spiess was a native of the Grand Duchy of Hesse and born in Lauterbach, a town about thirty miles east of Giessen. I lis father, a clergyman, accepted soon afterwards a pastorate at Offenbach, across the Main from Frankfort, and in tha private school which he also opened there and conducted on Pestalozzian principles the boy received his early training. Gymnastic exercises as taught and described by GutsMuths formed part of every day's program, and there were weekly excursions with teachers and dancing lessons in the winter months. The Jahn gymnastics were later introduced and in 1824 some of the boys organized a little society for regular practice outside of school hours. As a student of theology (1828-1831) in the universities of Giessen, Halle, and Berlin, Spiess became proficient in the art of fencing and displayed skill in all forms of physical activity. Music and drawing, too, for which he possessed both taste and talent, absorbed a portion of his leisure. Excursions on foot took him to Schnepfenthal, where as a schoolboy he had already met GutsMuths, and to the town where Jahn was now living in retirement. During the few months in Berlin he saw and learned many new exercises in the private gymnasium opened there by Eiselen, a former pupil and assistant of Tahn's. Upon his return to Giessen in the spring of 1830 he began to give regular instruction in gymnastics, first to a dozen boys in a garden, and then, as interest grew, to nearly one hundred and fifty in one of the city parks. Already he was modifying the traditional method by gathering the entire number into one band at the commencement of each period for various simple exercises performed in rhythm as they stood or marched, or for running and jumping under the leadership of a single teacher.

Consult *Mind and Body* for November, 1904 (Vol. XL, pp. 217-223).

Early in October of 1833, after a year and a half of private tutoring. Spiess left

Germany for Switzerland, to accept a position as teacher of history, singing, and gymnastics in the elementary school of Burgdorf. The fifteen busy and fruitful years (1833-1848) which he spent in this foreign land, first in Burgdorf and then for four years in the city schools of Basel, constitute perhaps the most important period in his career. In May of 1848 he returned to German)- and to the Grand Duchy of Hesse, to undertake the task of introducing gymnastics into the schools of his native state, beginning with the higher schools and the elementary schools of such communities as were prepared to take the step at once. He was also to train the requisite teaching force, and afterwards to superintend their work. Model lessons were immediately begun with classes of boys and girls in Darmstadt, the capital city, and teachers from all parts of Germany, and even from beyond its borders, came thither from time to time during the next few years to become familiar with his method and many of them to receive practical instruction under him. He also visited many places in Hesse in the interest of physical training, and conducted two formal courses for teachers, the first in Darmstadt and the second in Oldenburg. Failing health made it necessary to interrupt his hitherto unceasing activity in the summer of 1855, and three years later his career was brought to an untimely end by disease which had developed in the lung injured during a fencing bout in his student days at Giessen.

The chief service which Spiess rendered to physical training in Germany, and wherever German influence has been felt, was the attempt to make it a part of the school life. He believed that the school should concern itself with the whole life of the young, physical as well as mental, and that gymnastics, recognized by the state as a means of education, should be thoroughly incorporated and treated on an equality with other branches of instruction and discipline, enjoying the same rights and conforming to the same pedagogic principles. Those who teach the subject should be educators by profession, and closely identified with the life of the school, receiving their training in this branch, as in all others, at the normal schools and universities, or in part at institutions intended for that purpose exclusively. In elementarv schools instruction was to be in the hands of the grade—or class—teacher, and in higher schools there should be special teachers of gymnastics, just as in the case of mathematics, or languages, or science. The exercise material must be arranged in progressive steps suitable for the different school grades, and a series of manuals prepared to fit the different conditions and needs in country and city schools, and in elementary and higher schools for boys and girls.

In preparation for the process of sorting out and distributing to each sex and age appropriate forms of exercise Spiess thought it necessary first of all to collect, analyze, and classify the whole mass of possible positions and movements of the body. This he endeavored to do in his " System of Gymnastics" (1840-1846), but without seeking at the same time to separate the useful from that which is unessential or undesirable. The book is not intended, therefore, as a practical guide for the teacher. That function was reserved for his second work, the " Manual of Gymnastics for Schools" (1847 and 1851), which has been a mine of instruction and suggestion for authors of later manuals. Here he leads gradually from the simplest exercises to the most difficult combinations, pointing out what material is to be used for each sex and age, and explaining the method to be pursued during the lesson hour. He devised new forms of apparatus on which the whole class, or a considerable fraction of it, could work at once under the teacher's eye and at his command. The "free exercises " and the " class exercises in marching" which he elaborated were a fresh contribution to the stock of German gymnastics and with the simpler exercises on apparatus which he introduced supplied material for girls and younger boys. His fondness for music is doubtless responsible for that rhythmical arrangement of the free exercises which has continued to be so conspicuous a feature in the teaching of his followers ever since.

For information regarding school gymnastics as carried on in Germany today see *Mind and Body* for June, 1904 (Vol. XT., pp. 81-89). VIII HJALMAR LING

To Hjalmar Fredrlk Ling (1820-1886) Swedish school gymnastics is largely indebted for its present form, and the school gymnasium for the nature and arrangement of the equipment now in common use in Sweden. He also made it possible to introduce physical training generally in the elementary schools and in schools for girls. The only surviving son of Pehr Henrik Ling, he was born in Stockholm April 14, 1820, received an education equivalent to that given in the Swedish secondary schools, completed the course at the Central Institute of Gymnastics (1842), and was installed as teacher there in 1843, devoting himself to school and medical gymnastics under Branting's direction and studying anatomy under Dr. P. J. Liedbeck. In 1854, at the suggestion of Carl August Georgii, another teacher, he went to Paris to spend the better part of a year in study there, paying particular attention to anatomy, both human and comparative, but attending also Claude Bernard's lectures on experimental physiology and the clinics at the Hotel Dieu, and meanwhile acquiring a thorough knowledge of the French language and literature. During this same period he also paid two long visits to Berlin, to assist in introducing the Swedish method of medical gymnastics at the institutions of Doctors Neumann and Eulenburg, and took advantage of the opportunity to familiarize himself with the German language. From Paris he returned to Stockholm, became head teacher under Branting in 1858, and upon the reorganization of the course in 1864 was placed at the head of the section of school gymnastics. This position he continued to fill for eighteen years,— until his retirement on a pension in September of 1882. For some years he.was also in charge of the physical training in one of the city's higher schools for boys (the *Nya Elementarskola).* Reprinted, but with changes

and additions, from an article in the *American Physical Education Review* for December, 1904 (Vol. IX., pp.-38, 239).

Following closely the ideas of his father, and with the sole thought of completing the latter's work, he devised new forms of apparatus adapted to the needs of the school and so arranged them that large numbers could exercise at the same time, in this way greatly increasing the number of useful exercises and bringing them all within the reach of every pupil. Then collecting a mass of gymnastic material he selected the most suitable exercises and arranged them in groups according to the effects produced upon the individual, providing further for an orderly progression in each group, and combining these into a complete lesson-scheme — the original "day's order." It was now possible to assign to different ages and degrees of ability, and to the two sexes, the appropriate material from the graded series of exercises, so that the benefits of gymnastics could be extended to girls and younger boys.

Hjalmar Ling published two pamphlets intended primarily as guides for his students at the Central Institute, and in 1866 a work on Kinesiology *(Rorelselara)* or the science of bodily movements. He also helped to start the Swedish periodical devoted to physical education (the *Tidskrift i Gymnastik),* and for ten years (1874-1883) was one of its associate editors. Although not a clear writer, he was a deep thinker and an industrious compiler, familiar with the whole range of gymnastic literature, German, French, and English, as a glance at the pamphlets just mentioned will show. He left behind a carefully arranged collection of nearly two thousand pen-drawings of positions and movements used in gymnastics, made by himself. These are preserved in the library of the school, and about a quarter of the entire number appear in a book since published with the help of a gift from Mrs. Mary Hemenway, the founder of the Boston Normal School of Gymnastics (" En Samling Gymnastiska Stallningar och Rorelseformer." Stockholm, 1893). The younger Ling died March 9, 1886, and was buried near his father at Annelund, a few miles northwest of Stockholm.

It is a strange but widely prevalent misconception which looks upon Swedish school gymnastics as made up entirely, or for the most part, of exercises performed without apparatus. On the contrary, the visitor to Sweden would find lessons of that sort given only in small and remote settlements, where poverty or the indifference of local authorities has prevented adequate provision in the matter of rooms and equipment. As a rule in the larger towns and in cities like Malmo, Gothenburg, and Stockholm, and especially in the newer school buildings, elementary and secondary alike, one finds separate halls for the gymnastic lesson as ample in size and an amount and variety of apparatus as great as anywhere in Germany or the United States, and there is often a skilful arrangement of equipment and an intelligent adaptation of means to ends well worth the careful study of teachers in other countries. It is Hjalmar Ling's great service that he sought first of all to analyze the conditions of school life and the needs of the growing child, and then to devise forms of exercise, to select, invent, and arrange apparatus, and to elaborate a lesson plan which should meet these conditions and needs efficiently and with the greatest economy of time and effort. Opinions may differ as to the merits of particular details in the system he helped to perfect, but his method of approach to the problem deserves ungrudging commendation.

For detailed information regarding school gymnastics as carried on in Sweden today see the *American Physical Education Review* for March, 1901 (Vol. VI., pp. 1-13), and *Mind and Body* for July, 1904 (Vol. XI., pp. 105-111).

Like many another student, Follen had come back from the war filled with ideas of moral and social reform. In place of the provincial student clubs, with their carousing and dueling, he desired to see the entire student body united into one Christian brotherhood, settling all disputes in accordance with the principles of right and justice. The purity of his own life and the moral greatness of his character, the eloquence with which he urged his views, and his confident enthusiasm soon won a following of like-minded friends in whose eyes he took on the dignity of a very prophet. The violent opposition of the existing clubs, whose primacy was threatened by a new association organized late in 1816 under Follen's leadership, led to many challenges; and lest his refusal should be attributed to cowardice he took part successfully in a number of stubbornly contested duels against some of the best swordsmen in the university. Looked upon with suspicion by the authorities on account of their liberal tendencies, and hated and proscribed by a majority of the students, who nicknamed them "Blacks" from the dark clothing they affected and their somber demeanor, the reformers became more and more extreme and uncompromising in their attitude. Their plans already contemplated a great Christian republic formed of freed and united Germany. Tyranny was to be met with resistance, and Follen now taught that armed insurrection and even perjury and assassination were justified when other measures failed in the struggle for popular freedom. Development of the physical powers formed an essential part of the program of the Giessen "Blacks." In the summer of 1816 a gymnastic society was formed, which enrolled boys in the secondary school, young merchants and others, as well as university students. Here again the leadership fell to Follen, who is described as an excellent gymnast, a skilful hand with the broadsword, and a powerful swimmer. A book which Jahn and his older pupils had published that spring was employed as a guide and Jahn's rules formed the basis of order during the exercises.

Upon completing his courses in jurisprudence Follen remained at the university as *Privat-docent,* studying at the same time the practice of law in his father's court. Early in the fall of 1818 he undertook the cause of several hundred communities in the province of Upper

Hesse who desired to remonstrate against a government measure directed against the last remnant of their political independence, and drew up a petition to the Grand Duke in their behalf. It was printed and widely circulated, and aroused public opinion to such a pitch that the obnoxious measure was repealed; but it also brought upon its author such unrelenting hatred on the part of the influential men whose selfish plans were thereby thwarted that any thought of a further career in his home city became impossible. He therefore accepted an invitation to lecture as *Privat-docent* in the University of Jena. An attempt to force upon the students there his radical views regarding moral and political reform excited the opposition of all but a small minority. Former friends, even, were alienated by his stern, intolerant attitude, and by the charge of weakness or cowardice with which he met dissent from the extremities to which he pushed his principles. One of the small handful who remained faithful was Karl Sand, whose murder of the German reactionary writer Kotzebue on March 23, 1819, was the logical outcome of Follen's teaching, acting upon a mind unbalanced by fanatical zeal in the cause of popular liberty. To the authorities all student associations at once became objects of suspicion. Although repeated examinations yielded no legal evidence of Follen's complicity, the authorities forbade his lecturing longer at Jena, and at his home, also, he found himself a proscribed man.

Learning that the government intended to send him to prison, he left Giessen for Strasburg in the winter of 1819-20 and the next fall became professor of the Latin language and of universal history in the evangelical college at Chur, in Switzerland. This position he resigned the following summer to accept an appointment as public lecturer on jurisprudence in the university at Basel. During the next three years the cantonal authorities received and refused repeated requests from the allied sovereigns of Austria, Russia, and Prussia demanding that Follen be surrendered to them for trial on the ground of complicity in revolutionary movements. Finally these communications became so threatening, enforced as they were by letters from various other Swiss cantons, which strongly advised compliance with the demand, that further resistance was evidently unwise. Follen, therefore, left Basel secretly, traveled by mailcoach with a false passport to Paris, engaged passage for the United States from Havre a few days later, and after a voyage of more than six weeks reached New York City on December 19, 1824.

In Philadelphia, through General Lafayette, he soon made the acquaintance of Professor George Ticknor, whose own efforts, seconded by those of other influential friends, led to his settling in Cambridge a year later as the first teacher of the German language at Harvard University. Early in the spring of 1826, only a few months after his arrival, he was also introducing the Jahn gymnastics among the students, at first fitting up one of the unoccupied common halls on the ground floor of University Hall for the purpose and later superintending the equipment of an outdoor gymnasium on the Delta, the enclosure where Memorial Hall now stands. In the fall of the same year a similar outdoor gymnasium was opened to the public in Washington Gardens, in Boston, at the corner of West and Tremont Streets, opposite the Common. The committee of citizens in charge of this project had employed Follen to superintend the erection of suitable apparatus and become the principal instructor, and authorized him to engage an assistant. He resigned his position at the Boston gymnasium early in the summer of 1827, and the title "Superintendent of the Gymnasium " at Harvard is given him only in the catalogue for 1827-28, which also contains the last reference to "gymnastick exercises." In 1830 he was advanced to the professorship of the German language and literature, three friends having guaranteed a portion of his salary for five years. The appointment was not renewed at the end of that period, and his connection with the university therefore came to an end.

He had become interested meanwhile in the newly formed Anti-Slavery Society, and at one time served as a manager of the Massachusetts branch. As early as the winter of 1826-27 he also formed the acquaintance of Dr. William Ellery Channing, and decided to prepare himself for the ministry with the assistance of that distinguished Unitarian clergyman. In the summer of 1828 he was regularly admitted as a candidate, though

X CHARLES BECK

One of the most important and successful educational innovations of its time was the *Round Hill School* (1823-1834) at Northampton, Mass. It occupied the site of the present Clarke School for the Deaf, and the founders were Joseph Green Cogswell and George Bancroft, both Harvard graduates and tutors, who had also received their doctor's degrees (Ph.D.) at Gottingen, in Germany, and had traveled extensively in that country and elsewhere in Europe. The prospectus, issued in June of 1823, states that "we would also encourage activity of body as a means of promoting firmness of constitution and vigor of mind, and shall appropriate regularly a portion of each day to healthful sports and gymnastic exercises." In a descriptive circular dated March 25, 1826, they claim that they "were the first in the new continent to connect gymnastics with a purely literary establishment." "It may be impossible," they say, "to engraft on any modern nation a system of physical education corresponding to that which prevailed in ancient Greece. But something must be done.... We are deeply impressed with the necessity of uniting physical with moral education; and are particularly favored in executing our plans of connecting them by the assistance of a pupil and friend of Jahn, the greatest modern advocate of gymnastics." The man here referred to was Charles Beck (1798-1866), a German refugee whose friendship Follen had enjoyed during his three years at Basel and who had accompanied him in the flight from Switzerland to America.

Consult *Mind and Body* for September, 1905-February, 1906 (Vol. XII.), espe-

cially pp. 196-198, 217-223, and 284.

Beck was born at Heidelberg. His father, a merchant, died when the boy was still young, and his mother afterwards became the wife of Wilhelm De Wette, professor in the University of Heidelberg. In 1810 the family removed to Berlin, whither De Wette had been called to fill the chair of theology in the new Prussian university. There, as a student in one of the secondary schools, Beck soon came under Jahn's influence, began to frequent the outdoor gymnasium in the Hasenheide, and owing to his natural robustness of body, and the enthusiasm with which he applied himself to the exercises, developed more than usual proficiency in all the arts of the " Turners." After the assassination of Kotzebue by Karl Sand in 1819, De Wette, who had long been a friend of the Sand family, wrote a letter to the mother, in which he endeavored to console her with the thought that her son's act, though wicked, arose from a mistaken notion of duty. The Prussian authorities, upon learning of this letter, accused the eminent teacher of seeking to excuse the crime, and in token of their displeasure deprived him of his chair and even banished him from the kingdom. After several years in retirement he accepted, in 1822, the professorship of theology in the University of Basel, and passed the remainder of his life in that city. Beck, meanwhile, had become an accomplished classical scholar at the University of Berlin. He afterwards studied theology, was ordained to the Lutheran ministry at Heidelberg in 1822, and the next year obtained his doctor's degree in theology from the University of Tubingen. He had been active in the movement for a true Christian association of all students, and finding that his republican sentiments stood in the way of a successful career in Germany, he, too, removed to Switzerland, and joined the rest of the family in Basel, where he found an opportunity to teach the Latin language and literature. In the late fall of 1824, convinced that even this asylum was no longer free from danger for Germans known to cherish liberal opinions, he left Switzerland for Paris, a few days in advance of Charles Follen, and sailed with the latter from Havre for New York City on the 5th of November. Both men went to Philadelphia a few weeks after their arrival in this country, and were soon busily engaged in the study of English. Through General Lafayette, who was then revisiting the United States at the invitation of Congress and receiving everywhere a welcome which gave to his movements the character of a triumphal procession, they made the acquaintance of Professor George Ticknor, of Harvard University. The latter's letter to George Bancroft, to whom De Wette had already written recommending his step-son, secured for Beck an immediate appointment as instructor in Latin and gymnastics at the Round Hill School, and by the middle of February, 1825, he had left Philadelphia to take up his new duties in Northampton.

Of the nature of the outdoor gymnasium which he was soon directing, and the work done in it, not much direct evidence has come down to us. One former pupil writes that "The regular exercise of gymnastics was upon the plateau just below the hill, where gymnastic appliances, then freshly introduced from Germany, were in abundance." According to another "Round Hiller ": "A large piece of ground was devoted to the purpose and furnished with all the apparatus used in the German gymnasia. The whole school was divided into classes, and each class had an hour three times a week for instruction by Dr. Beck." A newspaper article refers to the hours from five to seven in the afternoon as set apart for "exercise and amusement. At this time the classes in gymnastics have their instruction, when the weather permits." Indirect proof that the Round Hill " gymnasium " was only a miniature Hasenheide is abundantly furnished by the " Treatise on Gymnasticks, taken chiefly from the German of F. L. Jahn," a translation of the latter's book of 1816, which Beck completed and turned over to the publishers in January, 1828. In the preface he tells us that " The school of Messrs. Cogswell and Bancroft in Northampton, Massachusetts, was the first institution in this country that introduced gymnastick exercises as a part of the regular instruction, in the spring of 1825. Since that time the interest for this branch of education has been rapidly increasing, and frequent inquiries have been made respecting a subject much esteemed for its expected salutary effects, but little known as to its particulars.... Wishes were expressed to me, by several of the most zealous and able friends and advocates of physical education, to translate a work which would be suitable... or compile one.... I did not doubt to which of the two ways proposed to give the preference."

Beck left the Round Hill School in 1830, to take part in establishing another boys' school, in Phillipstown, on the Hudson River opposite West Point. Two years XI

FRANCIS LIEBER

A third German refugee who assisted in the first introduction of the Jahn gymnastics into America was Francis Lieber (1800-1872), Pollen's successor at the Boston Gymnasium in the summer of 1827. Lieber was born in Berlin, the tenth among twelve children of a dealer in ironware. In 1811 he became acquainted with Jahn at the Hasenheide outdoor gymnasium. Although too young to join his older brothers in the first campaign of the War of Liberation, upon Napoleon's return from Elba he entered (1815) a volunteer regiment of infantry, took part in the battle of Ligny, was severely wounded at Namur, and later suffered from a prolonged siege of typhus fever in the hospitals at Aix-la-Chapelle and Cologne. After his return home he became one of the most ardent and tireless of Jahn's pupils, accompanying him on the month-long excursions to the Island of Riigen in 1817 and to Breslau the following year.

In July of 1819, a few days after Jahn's arrest, Lieber was also seized as an enemy of the state. After four months in prison he was allowed to go free, but forbidden to study in any Prussian university. The universities of Heidelberg and Tubingen also refused him admission, but he met with better success at Jena, where he re Consult *Mind and*

Body for September, 1905-February, 1906 (Vol. XII.), especially pp. 253, 254, 281-284, and 286, 287.

f ceived his doctor's degree (Ph.D.) in 1820. He afterwards studied for brief periods in Halle and Dresden (1821). The Greeks had risen up against their Turkish oppressors in the spring of 1821, and in December of that year Lieber joined at Marseilles a band of Philhellenes — men who intended to give their services in the cause of freedom to a foreign race, since the reaction at home left no opportunity there for patriotic endeavor. They landed in southern Greece on the 21st of January, 1822; but the next two months were full of misery and bitter disillusionment. They were starved, robbed of their horses, compelled to sell clothing, watches, and even their arms to procure money, and met at every step with cowardice, incapacity, and lying on the part of the natives. Lieber, returning in a small boat to a town on the east coast of Italy, reached Rome about the first of June, and spent the next year as private tutor in the family of Barthold Georg Niebuhr, the celebrated German historian, at that time Prussian ambassador at the Papal Court.

The Prussian king, and later the minister of police, had assured Lieber that no further persecution need be feared in his own country, and for some months after his return to Berlin, which he reached in August of 1823, it seemed as though all was well. But in time it appeared that every movement was watched by the police. Thrice summoned as a witness before the court charged with the investigation of revolutionary plots and once kept in prison for months because of his refusal to give information, he foresaw the fate that awaited him if he remained longer in Germany, and began to take steps looking toward a career in some foreign land. Lessons in English were begun in February of 1826, and among other things he secured from Major-General von Pfuel, in charge of a swimming school in Berlin, a testimonial as to his skill in that art and his ability to conduct a similar institution with success. When all was ready he left Berlin, May 17, 1826, and ten days later reached London. Although he passed a year in the English metropolis, supporting himself by private instruction in German and Italian, Lieber's thoughts were soon turned from this uncertain means of livelihood to the possibility of a career in the United States. As early as August his diary contains this entry: "Mrs. Austen, the authoress, introduced me to Mr. Bentham, and to Mr. John Neal, an American; so perhaps I may go to America." The *American Journal of Education* for November of 1826 quotes from a recent letter of this same John Neal, who was actively interested in the outdoor gymnasium opened in London by still another German refugee, and reprints the enclosed proposals of Lieber for the establishment of a gymnasium and a swimming school in this country, and a certificate received by him from Jahn under date of August 1 of that year.

On April 13, 1827, in response to an invitation just received, Lieber wrote accepting a position as Follen's successor at the Boston gymnasium, and agreeing to establish a swimming school in that city. He landed in New York City June 20 of the same year, and proceeded at once to the scene of his new duties. The swimming school seems to have proved a successful venture from the start and was still in existence at least as late as the season of 1832. The popularity of the gymnasium, on the other hand, soon waned. From a sketch of the life of its treasurer we learn that about four hundred had attended during the opening term, "but no talent could keep the gymnasium alive after the novelty had ceased, and some of the gymnasts had been caricatured in the print shops. The institution lingered about two years, when, only about four gymnasts remaining," its accounts were closed. Lieber's own ideas regarding the nature and means of physical training are preserved for us in two articles contributed by him to the *American Journal of Education* of August, 1827 (Vol. II., pp. 487-491), and the *American Quarterly Review* of March, 1828 (Vol. III, pp. 126-150).

A testimonial from Niebuhr, and his own force of intellect and character, had secured for Lieber at once a very cordial reception on this side of the Atlantic. At the close of his first season at the swimming school he turned with great energy to literary labors, and soon made up his mind to edit an encyclopaedia, modeled after a famous German work but adapted to English readers and supplied with numerous additional articles by distinguished American contributors. The first volume of the new " Encyclopaedia Americana " appeared in 1829, and the thirteenth and last in 1833. It proved a successful venture financiallv and brought him also the acquaintance of prominent men in all parts of the country. In September of 1833 he moved from Boston to Philadelphia, charged by the trustees of the Girard Fund with the preparation of a plan for the college of that name. Then for twenty-one years, beginning in 1835, Professor of History and Political Economy in South Carolina College, at Columbia. In 1857 Columbia College in New York City elected him Professor of History and Political Science, afterwards transferring him to the chair of Constitutional History and Public Law in its Law School, and here he continued in active service until his death, in 1872. As a publicist he rose to the very highest rank. At President Lincoln's request he drew up the "Instructions for the Government of Armies of the United States in the Field," published by the War Department in 1863, and during the Civil War his advice was repeatedly sought by leading statesmen on matters of public and international law.

XII DIO LEWIS

In the third and fourth decades of the nineteenth century four different systems of physical training had been brought forward for trial in the United States — the drill and discipline of the military academy, the Jahn gymnastics, manual labor on the farm or in the shop, and "calisthenics" for girls and women. The claims of each were pressed by enthusiastic advocates, and there was no lack of imitators of the educational institutions in which each had first be-

come incorporated; but for various reasons not one of the four was generally adopted or won for itself more than temporary foothold. From 1835 till 1860, though educators were increasingly alive to the importance of physical training, no one appeared with anything that seemed more likely to meet the conditions and needs of the time. Then came Dlo Lewls (1823-1886) with his " new gymnastics for men, women, and children," something definite and practical. His contagious enthusiasm created a wave of popular interest that spread to all parts of the country, and the "Normal Institute of Physical Education," which he opened in Boston in the spring of 1861, was the first attempt in America to prepare teachers of a subject whose right to a place in the school curriculum had long been conceded. Although his so-called "system" was not of a sort to survive for many years the loss of the founder's energetic leadership, yet he prepared the soil for the broader and more substantial type of work of a later day.

Consult the *American Physical Education Review* for June and September, 1906 (Vol. XI., pp. 83-95 d 187-198).

Lewis came of vigorous Welsh stock and was born on a farm in Cayuga county, New York, within a few miles of Auburn. An older brother says that at the age of twelve, when he left school, he "was as large and mature as ordinary boys of fifteen. His mind was remarkably active; so were his movements. He could do anything he desired to do with more rapidity than any person I ever knew. When accustomed to committing to memory he could read a page in a book once, close the book, and repeat it all. He had an investigating, inquisitive mind. He liked miscellaneous reading, but did not relish digging into study. He learned a great many facts but did not read many books thoroughly. He was enthusiastic in everything in which he engaged. He developed as a child a talent for declaiming, even before he could read much, and as a youth he engaged in debates and talked on temperance. " After six months in a cotton factory and about two years in another where he worked at polishing hoes, axes, and scythes on an emery wheel, he began teaching school near home. When he was eighteen "he went to what was then Lower Sandusky, now Fremont, Ohio, and organized a select school. Here he began the study of Latin and Greek, and the classes which he soon formed in them, as well as in algebra and geometry, kept him hard at work with his own studies in order to keep well ahead of his pupils." A severe and prolonged attack of ague compelled the young teacher to give up his work in Fre mont at the end of a year, and he did not return to it. Having made up his mind to study medicine he now entered the office of the physician at the Auburn State Prison, with whom he remained nearly three years, and in 1845 went to Boston and spent some time in the medical department of Harvard University. Without completing the course there he began the practice of his profession at Port Byron, not far from his home. Won over to the new system of homeopathy by his partner, he established himself in Buffalo in 1848 and a little later began to edit a monthly publication called *The Homeopathist.* The honorary degree of doctor of medicine was conferred upon him in 1851 by the young Homeopathic Hospital College of Cleveland.

A year after his removal to Buffalo, Lewis married the daughter of a physician whose country residence was in the neighborhood of Port Byron. Three of her sisters had died of consumption, and in the fall of 1851 she herself began to exhibit unmistakable symptoms of the same disease. Her husband, who was already urging in his medical journal the importance of preventive measures, at once undertook the treatment of her case by hygienic means. For a time they appeared to be successful; but in the fall of 1852 his wife's cough reappeared, and he thereupon determined to give up his practice and go south with her for the winter. Early in January they reached Fredericksburg, Virginia. It was not in the man's nature to remain idle, and he was soon talking on health subjects to pupils in the schools. To identify himself with a cause which had excited his interest ever since boyhood he now joined "The Sons of Temperance," and " meeting only indifference to his appeal for the admission of women to the organized temperance work, he wrote a paper on ' The Influence of Christian Women in the Cause of Temperance,' and read it in a hall " in that town. This is said to have been his first appearance on the public platform. Other lectures followed, on the same subject and on health topics, and these were repeated during the two succeeding winters, which he also spent with his wife in various parts of the South. At the end of this time Mrs. Lewis found herself fully restored to health. The next five years, until the summer of 1860, were devoted almost entirely to platform work in the Middle and Northern United States and Canada, speaking six evenings a week on the laws of health and on Sunday evenings urging "The Duty of Christian Women in the Temperance Work."

During these eight years of lecturing Lewis had devoted his spare hours to " the invention of a new system of gymnastics... adapted to the classes most needing artificial training." After experimenting for some time with the exercises which he had selected or devised, he determined to concentrate his efforts on the attempt to introduce them to the public, and in June of 1860 established his home in the vicinity of Boston for this purpose. Evening classes in gymnastics were soon organized in a number of the surrounding towns, and a public gymnasium for men, women, and children was opened at 20 Essex Street, in Boston. In August of 1860 the " new system" was all at once brought to the notice of leading educators gathered from the length and breadth of the United States, when the American Institute of Instruction, holding its thirty-first annual meeting in Boston, invited Lewis to appear before it to explain and illustrate his work. A committee appointed to visit the Essex Street gymnasium reported that its impressions were highly favorable to the system, and a resolution declared "that the members of this Institute have... witnessed with