

## HAMMER-THROWING.

BY MALCOLM W. FORD.



HENRY VIII.

THE exercise of weight-throwing is purely a muscular one, and many physicians who do not approve racing, strongly advise weight-throwing as a means by which any one with athletic tastes may expend his energy. The two events in weight-throwing which are best for general development of the upper part of the body are throwing the hammer and throwing the 56-pound weight. Both are heavy games, and, although they may be indulged in simply as an exercise with much satisfaction, no matter how weak comparatively the athlete is, only one with a physique far stronger and heavier than the average can accomplish any distance thought to be remarkable. In throwing the 16-pound hammer, for instance, an athlete weighing in the neighborhood of 130 pounds should, after a little practice, send this missile anywhere between 50 and 70 feet, but the record is 141 feet  $3\frac{1}{2}$  inches, which an athlete of the mentioned weight can never hope to reach; but he may derive just as much beneficial exercise in throwing 70 feet as J. S. Mitchell will in accomplishing a world's record of over 141 feet. Mitchell weighs in the neighborhood of 220 pounds in athletic dress, and, as all the successful hammer-throwers approximate to Mitchell's weight, it

is generally considered that heavy men have a monopoly in this kind of exercise.

The most casual observer at athletic games will become impressed immediately with the great size and physical proportions of the hammer and 56-pound weight throwers. The average athlete, on account of most of the events consisting of running, for which competitors have to be trained pretty fine before they can do themselves justice, is a thin-looking individual compared to these heavy weight-throwers. It is quite natural that an athlete weighing over 200 pounds should be prominent among men averaging 125 pounds apiece.

Weight-throwing events are not given so often as running, on account of there being comparatively few who can do anything worth looking at in them, and they are not so exciting as races. Spectators at games where there are no weight-throwing events are often heard to pass remarks on the thin, cadaverous look of the athletes racing wildly in front of them, and some onlookers, not having seen many games, but having the general type of an ideal athlete in their minds, have been disappointed with the looks of the average athlete, and have had their estimation of athletics brought to the former standard again only when shown such types of physical humanity as George R. Gray, W. L. Coudon, J. S. Mitchell and some of the all-round athletes.

The game of "throwing the hammer" is an old one, and to show how it originated, it would be necessary to go back thousands of years. A retrospect extending over such a lapse of time must necessarily be superficial and crude. It is said to have originated in Ireland B. C. 1829, where the first Tailtin games are traditionally claimed to have taken place at Telltown, County Meath. These games were inaugurated by Lugh Lamhfhada, monarch of Ireland, in honor of his foster-mother, Tailte, daughter of Maghmor, King of Spain, and wife of Eochaidh, son of Erc, the last king of the Fribolgs. These games consisted of running, jumping, wrest-



JAMES S. MITCHELL.

ling, fencing, sham battles, chariot-racing, the gaebolga, or feat of throwing the dart, and the roth-cleas, or wheel feat, from which has originated the practice of throwing the hammer.

This wheel feat consisted in whirling a chariot-wheel, to which was attached an unrevolving axle, around the head, and throwing it for distance. As in modern times, several exponents of the game are credited with having attained marvelous skill, notably a muscular prodigy named Cuchullian, whom all the chroniclers recognize as the champion of his time, although, fortunately perhaps, for the self-esteem of his latest emulators, the exact records of this antique celebrity remain in oblivion. The Tailtin games instantly leaped into prominence and permanence, and were celebrated with all the pomp and panoply of a national festival in the first week of August every year, down to the reign of the last monarch of Ireland, Roderic O'Connor, A. D. 1198. How long our sturdy predecessors continued to flirt with the monotonous chariot-wheel without yearning for a missile more easy of manipulation does not appear, but various authorities are responsible for the statement that about the time of the birth of Christ a large stone was substituted. However, the manhood and chivalry which for centuries had graced the mimic warfare of the Tailtin amphitheater were soon persistently occupied in more fateful arenas, emphasizing the prowess of their athletic days with grim impartiality on

the sea-browned hides of the Danes, the haughty crests of the Normans and Plantagenets, the merciless partisans of Elizabeth and the close-cropped skulls of the Roundheads, each eagerly succeeding the other in attracting attention in Great Britain. This destructive warfare, which ravaged the country from the twelfth to the eighteenth century, precluded all possibility of a continuance or revival of athletics during that turbulent period.

Meanwhile throwing the hammer and "casting the bar" had become quite fashionable in England under the personal patronage of some of her kin notably Edward II. and Henry VIII. The latter frequently laid down the scepter in favor of the hammer, in the twirling of which he showed himself to be a performer of no mean caliber. Indeed, in a standard English work devoted to manly pastimes, plates are still extant showing the royal Henry wielding a well-developed hammer for the delectation of the assembled beauties of his court. The loyal subjects were not slow in taking their cue from their lieges, and the fairs and other established festivals assumed additional social importance through the introduction of this and other athletic competitions. Even the usually sluggish Turk did not escape the fascination, and in the person of the Emperor Achmat shook off the hereditary love of languorous ease for the invigorating pastime of hammer-throwing, in which the Sultan became such an adept that two



FIRST PART OF SWING.

marble pillars were erected in Constantinople to mark the extent of his greatest achievement.

During the first part of the present century hammer-throwing maintained its popularity in Great Britain, the missile most generally in use being a smith's sledge, weighing from seven to seventeen pounds. With the rapid progress of the game, however, it became emphatically necessary that some definite rules should be formulated, and in 1866 these were brought into effect at the English championships, where the weight of the hammer was for the first time definitely fixed at sixteen pounds. No further restriction was put in force until 1875, and in the interval competitors were allowed to use any length of handle, run and follow. The greatest distance reached under these promiscuous conditions was in 1873, when S. S. Brown, of Oxford, accomplished 120 feet.

In the same year the Irish Champion A. C. was formed and held inaugural games, introducing to the public, among other promising novices, no less a future celebrity than Maurice Davin, a light but powerfully built man, who used one hand when throwing. At the English championships of that year (1875) the hammer was thrown from a 7-foot circle, and the length of the handle restricted to 3 feet 6 inches. The event was won by C. R. Hales, of Cambridge, with a throw of 96 feet 8 inches, and he repeated his victory next year, reaching 110 feet. Then having decided to retire, he elected to try for a record under the old rules allowing unlimited run and follow, and with a leaden-headed hammer and handle 5 feet long, he accomplished the then great record of 138 feet 3 inches. Hales was a grand exponent of the game, and could throw a missile unerringly in any direction he pleased. He generally turned four times in acquiring the desired momentum. He had an immense physique, being 6 feet 4 inches high and proportionately built, and constantly kept his muscles firm by healthful exercise.

Scientific hammer-throwing originated, without doubt, in Scotland, where a blacksmith's sledge which had a handle between 2 feet and 6 inches and 3 feet long, and the ordinary machinist head, was used. From this shape the head has gradually changed and the

handle lengthened, until now the head is a lead or iron sphere, and in place of the handle being a stout, stiff stick it is flexible, and the best ones are whale-bone, for this material will stand much hard usage without breaking. Different shaped grips for the handles are used, according to the owner's fancy, but the majority of the grips are merely the straight handle widened or thickened at the end, so as to enable the thrower to get a good purchase with his fingers, without holding the hammer too tightly. The flexible part of a good handle is not over  $\frac{3}{8}$  of an inch in diameter. Up to several years ago the exercise of the game in America consisted in swinging the hammer around the head and throwing it back over the shoulder, the athlete all the while standing still. Measurement was made from where the sphere landed to the nearest foot of the thrower. In 1888 the Amateur Athletic Union changed the rules of throwing the hammer, substituting a 7-foot circle for a scratch-mark, and allowing the competitor to do anything he chose in the circle while delivering the weight. But the athlete must not step out of the front half of the circle, which is generally the direction in which the weight goes. This last clause is put in to prevent an athlete from following the weight or stepping over the line, which is a foul, and it has served to make competitors very careful, and many of them do not approach the front edge within six inches or a foot, so as to allow themselves a little leeway in following after the weight has left their hands.

The illustrations "James S. Mitchell" and "Arthur Schroeder" represent positions for starting the swing, whether throwing the hammer from a standstill or a 7-foot run in the circle. Both these pictures represent right-handed throwers, and they give an excellent idea of the proper grip. It will be noticed that the right hand is nearest the head of the missile, and more guiding is done with it than with the left. These athletes will commence the swing by putting the weight over the left side first. A left-handed thrower will start with the hammer-head on the ground over to the left side, and his left hand will be nearest his head. In reverse to a right-handed thrower, the left-handed athlete's first motion will be to put the hammer over the right side. These

motions are done with the athlete standing in the front part of the circle, with his back to the point where he intends the hammer should land. Previous to grasping the handle, balsam fir is put on the hands, so as to enable a firmer hold to be taken without putting extra strain on the muscles of the fingers. One of the main points in the game is to get a free, easy swing, and if a certain amount of rigidity to the arm is caused by a tight grip of the fingers the free swing will necessarily suffer.

After encircling his head three or four times to get sufficient momentum, Mitchell will turn around with the hammer, stepping back at the same time, and after making a complete turn with the body, he will land at the opposite edge of the circle from where he started, just about as shown in the illustration "In Full Swing," excepting that the hammer-head will be considerably lower than in the picture. The further to the ground the hammer is at this point the more elevation can be given at the delivery. All that follows after the point when the hammer is in front of the thrower, during the final swing, consists of throwing the arms up, imparting to the hammer the same motion, and follow the body around more or less with the missile and let go when it seems most natural. The illustration "The Delivery" is a fine example of a perfect style. The hammer has left the hands in rather a straight line and is about one foot from them. The arms are straight up, and the whole attitude would impress a hammer-thrower as being a case where the thrower had things working correctly.

Referring to other illustrations representing the swing, it may be said that "First Part of Swing" shows the hammer at a time when, although the athlete is standing still, a certain leg movement is necessary. This shows a right-handed thrower, and he is about to send the hammer over his left shoulder as part of the swing, and it will be noticed that he is leaning forward on his right knee, which is done to facilitate the swing. After the hammer has passed his left shoulder and goes around to his right side again, he will straighten his right knee and assume a more vertical position until the hammer is over his left shoulder again. If the athlete stood perfectly rigid it would be very hard to

put such force in the swing, although some throwers stand more stationary than others. This is a point which the athlete himself can regulate after a little experience.

"Full Speed" represents a point that is very important, for the athlete is apt to get the missile too high in the endeavor to lower the head as the hammer passes in front of him during the swing at full speed. It can readily be imagined that if an athlete swings a hammer fast, and makes it a point to drop it close to the ground when it is in front, that it must pass at a proportionate elevation at the opposite point of the swing, which must be when the hammer is at his back again; then if the missile is considerably above his head and he is drawing it around and down to drop it as it passes in front again, the mere weight of the missile and the speed at which it is going will cause a fatal jerk to his arms and shoulders unless he is getting an unusually free, even swing. The main point to bear in mind is that the athlete must be ahead of the hammer; in other words, he must be drawing all the time, increasing the pressure



IN FULL SWING.



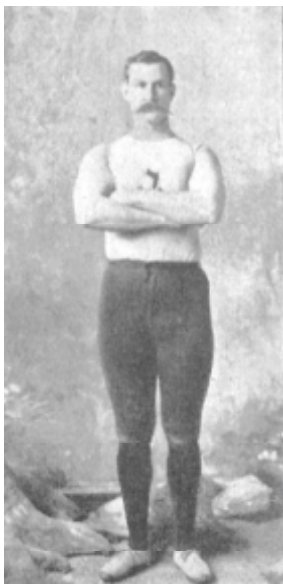
IN FULL SPEED.

right up to the delivery. One must get as much impetus as possible upon the body by rapidly spinning round, the arms being held perfectly rigid, with the hammer grasped in the hands. When the greatest impetus is obtained the hammer is let go, an extra push being given at the last moment by a jerk of the whole body. No actual arm-work is called for, the strain falling mainly upon the back and loins. The hammer is swung round, when once the thrower has begun his spin, at right angles to the body and in a vertical position, and the arm and handle thus act as one and the same lever. A very slight grasp of mechanical principles will show that at the hammer-head is, as it were, attached to the circumference of a revolving circle, the motive power being supplied by the spinning human body at the center. At the moment of delivery the centrifugal force causes the hammer to fly off in a straight line. It follows that the hammer will fly farthest when the greatest momentum can be produced. The advantage of this exercise, even to a man never destined to excel in high-class competitions, will be found to repay the amount of time and trouble expended. The muscles called into play serve to draw the shoulders and ribs into a healthy and natural position, and to give the lungs and heart plenty of room to perform their vital functions. These organs are never slow to avail themselves of this rare indulgence, and soon contribute conspicuously to the comfort and health of the general system. The back and loins,

and to a minor extent the lower limbs, will be strengthened and developed.

A right-handed thrower should have the hammer pass over his left shoulder about on a level with it, or, if a rapid swing is used, a little above it; then it should pass the right side correspondingly low, and some hammer-throwers go so far with this point as to very often strike the ground when passing the hammer on the right side and in front of them, and such an accident generally spoils their swing and they commence over again, unless it is during the last half of the swing, previous to the delivery, when they are going so fast that they cannot stop their momentum, and have to let the hammer go, although its striking the ground precluded all possibility of its traveling as far as it otherwise would. If the hammer barely grazes the ground the athlete sometimes will not notice it, but collision with the soil is considered bad for big throwing.

One of the disagreeable features of the game is the judging of it. The circle is generally laid out on level turf, clay or cinder, and is marked by a whitewash line. The officials do not like to stand near the scene of action on account of the danger of the hammer slipping from the competitor's hands. Very often an athlete, just in the act of delivery, steps over the front edge of the circle an inch or two, and there will be a dispute concerning it. Sometimes no evidence can be found to prove that the athlete stepped over the line, but the judges may feel certain that they saw his foot go over and give a decision accordingly. Sometimes spike-marks, made beforehand by athletes walking about the circle, may be used as evidence to prove that a certain competitor did step outside the ring. So long as nothing is used for a mark except a whitewash line, there are bound to be disputes. The arrangement used in the running broad jump, which works so satisfactorily, has been proposed for use in throwing all weights. It consists in having a ditch six inches wide in front of the edge from which the athlete jumps; or, in the case of throwing weights, it would be the edge where the athlete stops going forward. The square edge is made in the running broad jump by sinking a plank flush with the ground, and the same could be used for the front half of the circle from which weights are thrown. In the run-



WILSON L. COUDON.

ning broad jump the athlete is allowed to toe over as much as he chooses, provided he does not touch the ground in front of the edge. As the ditch in this case is six or eight inches wide and three or four inches deep, it can readily be seen that one would be at a great disadvantage in touching the ground in front of the take-off, unless the foot was deliberately put away over the latter point on to the level ground in front of the ditch, which, of course, would be easily detected by even a most inexperienced judge. If the front half of a 7-foot circle used in throwing weights were marked by a square edge and a ditch, it would be a most easy matter to judge a foul, for although the competitors might toe over the mark two or three inches, which is very often seen in the running broad jump, still any farther getting forward would make the athlete lose his balance by not having firm ground to support his trespassing foot, and he would deliberately have to step over, which, of course, would easily be noticed by the judges, even if they were standing quite a distance away.

The best performer at throwing the hammer of the present day is J. S. Mitchell, who stands 6 feet high, and weighed, when he made the record of 141 feet  $3\frac{1}{2}$  inches for 16 pounds, 218 pounds. The next best performer is C. A. J. Queckberner, who stands 5 feet 9

inches, and weighs 215 pounds. His best figures for the 16 pounds are 134 feet  $2\frac{1}{2}$  inches. W. L. Coudon, who is 6 feet  $\frac{1}{2}$  inch tall, and weighs 204 pounds, is next with a throw, with one hand, of 121 feet  $11\frac{1}{4}$  inches; and F. L. Lambrecht, who is 6 feet 2 inches, and weighs 208 pounds, is next with a throw of 112. All of these records were made from a 7-foot circle, excepting Queckberner's. He did his in England from a 9-foot circle. With the exception of Coudon's record, two hands were used in all. The English hammer-throwing record is 130 feet, by W. J. M. Barry, who spent several years in this country. Barry is of tremendous proportions, standing 6 feet  $4\frac{3}{4}$  inches tall, and weighing 240 pounds. He made his record from a 9-foot circle, which the English rule calls for. J. S. Mitchell did from a circle of this size 133 feet, at Newark, N. J., on October 20, 1888, but as a 9-foot circle is not used in this country, the probabilities are that the record here will not be bettered.

A few of the best records at throwing the hammer from a stand are worthy of mention because of their actual merit,



ARTHUR SCHROEDER.

although many might think that they could not compare at all with the figures with a 7-foot run from the circle. Coudon holds the second best stand-still throw of a 16-pound hammer with a 4-foot handle—of 108 feet 3 inches. J. R. Finlay holds the best—108 feet 5 inches. Lambrecht has, under the same conditions, done 107 feet 10 inches. Queck-berner has thrown the same weight, with a handle 6 inches shorter, from a stand, 100 feet 5 inches, and he has sent the 21-pound hammer, under the same conditions, 81 feet 3 inches, which is a most meritorious performance, as the best professional record for that im-

plement is 79 feet, by George Davidson, of Edinburgh.

Hammers range in weight from 8 up to about 22 pounds, and there are many records made with different length handles; but the regulation weight and style, as laid down by the laws of the Amateur Athletic Union, is an implement weighing 16 pounds, including handle, and measuring 4 feet over all. It must also be thrown from a 7-foot circle, but that does not mean that a competitor must necessarily take a run in the circle; but, as the hammer can be sent much farther with a run than from a stand, it is the prevailing style.



THE DELIVERY.

A NIGHT IN CAMP.

**T**HROUGH the wild wood's silent glade  
 Evening weaves her web of shade;  
 All about us lieth still;  
 Through moveless boughs the stars are  
 clear.  
 Listen! Far away I hear  
 The weird cry of the whippoorwill.

The camp-fire flickers, glows and  
 dies;  
 Deep slumber holds our weary eyes;  
 Night fills full her cup of rest,  
 Content in dreamless sleep to house  
 On a bed of balsam boughs,  
 Whose spicy breath she loveth best.

All around us mountains rise  
 Black against the starlit skies;  
 O'er the level of the lake  
 A snowy basin girdled round;  
 By the forest's ebon bound,  
 White clouds of vapor form and break.

Then comes waking, Then I hear  
 The blue-jay's challenge harsh and clear;  
 The curling vapor rolls away,  
 A rosy cloud foretells the sun;  
 The forest's busy life begun,  
 Joy begins the sportsman's day.  
 ISAAC OGDEN RANKIN.

