

## EVOLUTION OF FORM IN COLLEGE ROWING.

BY E. M. GARNETT.

### I.—THE HARVARD STROKE.

SCIENTIFIC rowing may be properly called a modern luxury. It may be said, with a moderate degree of certainty, that neither the Greeks, the Romans, nor yet the early English, were in the habit of pulling themselves about in ten-inch shells provided with anti-crab swivel rowlocks and ball-bearing slides. Had any one of them been caught in such an act he would have been condemned, in all probability, to drink the hemlock, or worshipped as a wizard. Of course, from time immemorial there have been certain vague principles regulating the application of the weight of the body to the oar. But up to the time when that eccentric genius lubricated the seat of his boat and the seat of his trousers with some fatty substance, and slid his greasy way to victory, rowing was much more a matter of brute strength than of exquisite skill. And with the evolution of the sliding seat from the crude but effective idea, possibilities were offered for great improvements in the art of pulling an oar. During the last twenty years new inventions and radical changes in the rigging of boats have necessitated a departure, not only from former methods of rowing, but also from its recognized tenets. The principles are not immutable—as some would have us believe. For example, it is a physical impossibility, with some styles of rigging, to apply much power at the end of the stroke. Still, different systems have their ardent supporters, and the superiority of one over another is apparently a mooted question.

According to some aquatic enthusiasts, it is the best plan to let the men get into a boat and pull: time and a little intelligence will remedy their faults. Others urge that it is only necessary to master "the few essential principles," and, as Mr. Julian Hawthorne says, "the refinements will take care of themselves." Still others, who treat with withering scorn the opponents of "form," lay great stress upon the absolute importance of sedulous attention to the minutest details.

In support of this first view, numerous instances have been cited of rough, awkward professional crews "yanking" and

"yawing" their way in ahead of the best trained and disciplined amateur oarsmen, and, as one writer upon rowing aptly says, "casting despite upon the traditions of the art." Indeed, until recent years it has been the current belief that a good amateur crew was no match for a set of skilled professionals. And the apparent truth of this opinion was never better, illustrated than by an impromptu race rowed on the Charles River in '78 or '79—I forget the exact date—between the famous Bancroft crew and eight of the best oarsmen that could be gathered together from the purlieus of Boston. It is true the professional crew was made up of such celebrities as Ross, Plaisted, Gorkin, Faulkner, etc., but before that morning they had never sat together in a boat. Their boat, by the way, differed utterly in rigging from those they had been accustomed to, and, in fact, was the worst and most dilapidated the Harvard Boat-house could afford. After a preliminary "paddle" down to the starting-point—the Brookline Bridge—the race was rowed over the regular two-mile course, Well, it is related—and I have it from one of the victors—that by the time the celebrated Harvard crew reached the Union Boat-house their untutored rivals had carried their boat into the house and were nonchalantly wiping her off.

Now, why did this crew, composed as it was of the heaviest and strongest men that had ever sat in a Harvard boat, who moreover, by their irreproachable "form," had crowned themselves with glory at New London, allow themselves to be so lamentably defeated by a set of men who labored under almost every possible disadvantage? Evidently there was some potent influence at work. Although the hardy and callus-listed members of the professional crew gained a precarious livelihood in arts which did not sap their physical vigor, yet the superior endurance of the crew as a whole can hardly be urged as an excuse for such an overwhelming defeat in a two-mile race. We are left the bitter alternative, then, of shocking the æsthetic sensibilities of our amateurs by the inevitable conclusion that the professionals possessed superior skill.

Now, intelligent amateur, before turning away in disgust, reflect a moment.

What is skill? What is form? Are they synonymous?

Skill is that which in almost every sport—in sparring, in fencing, in wrestling, in baseball, in tennis, etc., etc., other things being equal—enables one to win. Like elegance in writing, it is “the exquisite adaptation of means to ends.” In rowing it is that management of the body and oar—other things being equal, of course—which is conducive to the greatest speed of the boat.

“Form” in rowing is not so easily defined—for what would satisfy the most rigid exactitude in one system would be found defective in another. In general terms, however, it may be called, in crew rowing, “the graceful and nice management of the body and oar which contributes most to the appearance of similarity and uniformity throughout the crew.”

Now, it is true the professionals did not row with backs as straight, nor with a swing as even as the canons of good “form” call for, but they possessed the all-important secret of economizing all their strength and time. They not only knew how and when to apply their weight to the oar, but were fully alive to the necessity of holding the oar in the water no longer than it could do good, and in the air as short a time as possible. These and other less perceptible virtues, which such a constellation of aquatic lights will always possess, are generally obscured by the rugged and uncouth appearance of their body work.

But this body work, as far as the effect is concerned, though by no means all that can be desired, is not so very bad after all, for the swing of one man across the boat is counteracted by the swing of another. This fact, coupled with the firm, strong, simultaneous finish of the stroke, will effectually prevent the rolling of the boat.

On the other hand, the Harvard crew, whose “form” would have sent an æsthete into rhapsodies of praise, were skillful enough in their own peculiar way, but their rowing itself was unskillful because radically wrong in principle. But didn’t it enable them to win at New London? Yes, to be sure; but always against the same system or an inferior one.

The defeat of a well-trained amateur crew by a set of professionals does not, then, necessarily bring the traditions of the art of rowing into disrepute. “Form” without skill must always succumb to skill

without “form.” The combination of the two should be the goal of the aquatic ambition. And the one need not be detrimental to the other. It is all very well to scoff at “form” and rest placidly content to let the refinements take care of themselves. They won’t, and the result will be a lot of irremediable faults.

In sparring, or, still better, in fencing, what is called direction, *i. e.*, the precision of one’s aim, will be greatly affected by the slightest deviation of the hand from its proper position. The man who adheres to this principle through all the complications of attack and defense will be indeed a formidable antagonist. A master must pay the strictest attention to the details of his art. Then why not in rowing, where the object is to get in ahead of your adversary, and where the lightest touch of the flat of the blade to the water will add its mite to diminish the speed of the boat? Besides, the acquirement of the details will always add zest to one’s pleasure in the sport. Few sensations, indeed, are more pleasing than that of shooting through the water in a frail shell with a clean, strong sweep of the oars, especially when that sensation is flavored by a consciousness of a complete mastery over the situation.

To become an adept in the art of rowing does not demand the patience of a Palissy, nor yet the sagacity of a Socrates. True, a certain class of men of rare physical and intellectual torpidity will never master the correct methods, but to a man moderately well endowed as to mind and body, they are quite accessible.

Perhaps those practical gentlemen who scout the idea of “form,” and seem to believe that by some secret process sufficient excellence will be attained if the men get into a boat and pull, are like some of George Eliot’s good people of Raveloe, who supposed “there was nothing behind a barn door because they couldn’t see through it.”

Now, the essential thing is to first get hold of the correct principles of rowing, and then apply the refinements to them. The result will be a winning crew every time. And this happy combination and its inevitable consequences were brought about for the first time in the history of college boat-racing at Harvard in ’85. That is to say, the principles involved in the stroke of that year are the best that have yet been discovered. They, the principles, mind you, are identical with those believed in by Hanlan, the father of them—Teemer,

Gaudaur, O'Connor, and all the crack scullers of the present day. And these principles, the fruits of years of experience and unremitting toil in the acquirement of a method that would enable men to win races and their daily bread, it is natural to suppose, should be pretty nearly correct.

It is a great mistake to believe these men so deficient intellectually that they are forced to rely principally upon brute strength to put their boats through the water at the highest possible rate of speed. Rowing is not such a subtle and complex thing as all that. Is it not, to say the least, a bit of conceit on the part of amateurs to presume that with all their transcendent intellect they can, by a few years of intermittent devotion to a sport, acquire a more rational knowledge of it than men like Hanlan, who gave their lives to it?

It is the same with professionals in any sport—in sparring, in fencing, in baseball, etc.—what amateurs can compete successfully with them?

But let us see what prodigy was warmed into being by the genial light of correct principle.

Until 1885, college boating-men had failed—inexplicable it almost seems—to keep pace with the modern improvements in rigging and consequent advance in the science of rowing, which professionals had been for some years familiar with. They were under the able tuition of Mr. Faulkner, the veteran but progressive coach and bow-oar of both the champion "four" of America and of the champion "pair-oar" of the world, and adopted "in toto" the rigging and system which had won him such marked distinction. The result surpassed their most sanguine expectations.

After the new stroke had been pretty well mastered, a series of impromptu races with the best crew of professionals that could be scraped from the Charles was gotten up. This crew was composed of Hosmer, Faulkner, Gorkin, Casey, and others, including the burly Jake Kilrain, an oarsman as well as pugilist, and now at the summit of his fame. As they were given the *best* shell in the boat-house, and *one week* in which to *rig* it and "*get together*," they were really superior to the crew which so mercilessly defeated the Harvards in '78. Well, the Harvard crew not only forced them to take their back-wash for two miles, but in a number of half-mile spurts cleared them each and every time a full boat-length in the first quarter mile. Pretty conclusive evidence, is it not, taken

in connection with the unusually light weight of the '85 crew, and the comparatively *short time* they had *rowed together* under the *new regime*, that the new system was superior to the old?

It proves abundantly, also, that "form" and skill will triumph, even in a spurt, over skill alone. Some one—that is, some one who *did not* see these races—will say, perhaps, "Oh, the professionals allowed themselves to be beaten!" For the benefit of the more skeptical, I will say, that on one occasion, when the struggle of the professionals was more than usually hopeless, I had the distinguished honor of occupying a vicarious position in the bow of their boat. The genial Jake Kilrain, who, by the way, oftentimes, in a spirit of jocose repartee, has beaten me cruelly about the head, was, besides myself, the only amateur (oarsman) in the boat. Spurred on by our frantic stroke's disgusted and unorthoepical plaint, "Aw, yoose amatoors don't back me up!" we leaped madly against the stretcher at the rate—it seemed to me—of about fifty-five strokes to the minute. No! there was no lack of sincerity in that boat.

Moreover, the pride of a professional is wounded to the quick when an amateur happens to subvert the natural order of things by defeating him. Indeed this particular set, in an ebullition of amazement, admitted that the "amatoors" could show their rudder to the best professional crew that ever sat in a boat. But so long as the professionals, no matter what principles of rowing they may build their faith upon, persist in sacrificing "form" to skill, so long must they suffer defeat at the hands of a crew who preserve both these elements.

As the two leading universities, Harvard and Yale, have experimented in the last five years with every recognizable system of rowing, from the slow, stately and intensely amateurish English stroke to a hideous exaggeration of the professional style, the history of college boat-racing during this period will afford the best means of illustrating and demonstrating the superiority of one method over another. Let us gird on our polemical armor, then, and enter the lists.

There is probably no athletic event in America which excites such universal interest and enthusiasm, among amateurs at least, as the annual boat-race between Harvard and Yale, on the Thames.

Weeks before the "eventful day," windy interviews with the Nestors of the rowing

world appear in the daily papers, rooms are engaged at the hotels in and about New London, the enviable owners of yachts prepare for the sail, and every one is speculating upon the chances of his favorite college adding to its list of victories. "Straight tips" and wisecracs are equally plentiful, and equally inefficient in increasing one's store of knowledge.

At the race the river is dotted with gayly bedecked steamboats, yachts, and small craft of every description, the banks are lined with people, and the observation train, which from a distance looks like a huge colored snake, is a blue and crimson mass of bunting-waving, horn-tooting, yelling, frenzied collegians. It is not an exaggeration to say that fully fifteen thousand people annually witness the race.

Is it not strange that among all this crowd of intensely interested, over-excited spectators it would be extremely difficult to find a single person sufficiently informed to give one an adequate explanation of the causes leading to the defeat of one crew by another? For, especially when there is a great discrepancy in the times made by the two crews, there is always a reason beyond the overstrained condition of No. —, the slowness of the boat, or the eel-grass course, why one crew should cross the finish line a quarter of a mile in the lead.

But no! the spectators, though their native fancy for mystification is tickled by the triumph of skill and "form," are quite impermeable to their constituent elements. They seem to follow the principle laid down in *Hudibras*, that

"Still the less they understand,  
The more they admire the sleight of hand,"

for they certainly seem more delirious than their more experienced fellow-men.

It is not remarkable that men who acquired their knowledge of rowing when the art was in its infancy, and quite innocent of the time and labor saving contrivances now in vogue, should allow their ideas to grow rusty or fail to keep abreast of the times. It is rather extraordinary, though, that many college boating-men of to-day, who have had ample opportunity to study the principles involved in the various strokes, should be unable to elucidate the reasons for their particular styles of rowing. And this sad fact has been the indirect cause of some of the most disheartening defeats at New London.

There has always been at college a sort of Bœotian haziness of ideas regarding the

merits of this or that way of pulling an oar. And while the last few years—thanks to Mr. Storrow—have seen a certain development in the inquisitive instincts of college boating-men, indecision and uncertainty as to the virtues of the different systems of rowing seem still to prevail at Harvard.

The mooted question of superiority is confined practically to the English style of rowing; that introduced in '85 by Mr. Storrow, and the so-called Bob Cook stroke.

In the following brief sketch of what the last five years of college boating can show, let it be borne in mind by those who see their long-cherished convictions ruthlessly attacked, that all excuses for the defeat of one crew by another must be considered as necessary adjuncts to the attempted demonstration.

In 1883, Yale, under the tutelage of that aquatic Archimedes, Mike Davis, made a radical departure from the stroke which had been brought over from England some years previously by Mr. Cook, and introduced, with slight modifications, at both Yale and Harvard.

Although this stroke, which had failed to bring victory to Yale in '82, was almost the same in principle as that which defeated her, and, therefore, could not be held responsible for the defeat, yet she saw fit to discard it for the unique ideas of Mr. Davis.

The boat was made unusually long, to provide for a novel method of seating the men in pairs, all of Mr. Davis's latest inventions were introduced, and phenomenal results were expected. Whatever good there may have been in these inventions, the fact remains that in the race Yale rowed a short, rapid, jerky stroke, while Harvard adhered to the long, slow, English style, and won with comparative ease.

The experiment having failed, the next year Yale returned to her former method of rowing. But, aided by her experience of the past, as well as by a few valuable hints, it is said, from one of the famous Ward crew, she had the rare good sense to improve upon her previous conception of the English or Bob Cook stroke—for the sake of convenience, I shall call it English at present. As to the exact share Mr. Ward had in the amendment I do not speak with authority, but regarding the character of the difference between the strokes rowed that year by Yale and Harvard I speak whereof I know.

After the first two miles it was patent

that Yale had the race well in hand. Her oars were in the water longer and in the air a shorter time than Harvard's. Every man in her boat threw his weight more directly against the stretcher, and instead of holding his slide on the recover until his arms were straightened and the body was swung forward from the waist, he diminished materially the time the oar would otherwise have been in the air by starting his seat and shoulders immediately after extending his arms. He used his legs more, and "hung" less at both ends of the stroke. The slow, stately sweep of the Harvard crew succeeded in bringing them in about fifteen lengths behind their happy rivals.

It is true, the speed of the Harvard boat was affected by a number of important changes which she was compelled to make, prior to the race, in the composition and seating of the crew. But despite this fact, which could not alone account for such an overwhelming defeat—especially as the substitutes were good oars—she had the strongest and heaviest crew that ever represented a college.

In 1885, as we have seen, there was a revolution in rowing at Harvard. It was not until the early part of winter that Mr. Storrow, in the face of a certain amount of passive opposition, took the rather daring step, by engaging Mr. Faulkner as coach, of throwing overboard all those principles which, it is supposed, had won Harvard many a splendid victory. An entirely new system of rowing was inaugurated, and there was much grumbling and dubious head-shaking at the issue. Yale, on the contrary, was highly elated at Harvard's adoption of the "professional" stroke. Her crew, be it said, was deemed so strong as to earn the appellation of the "Yale giants," while Harvard's was not only unusually light, but, with two exceptions, was composed of men who had never before sat in a Varsity boat. Save with the brave but meagre minority who believed in the new régime, up to a week before the race Yale's success was a foregone conclusion. Well, the race, as one disappointed wearer of the blue expressed it, was a "procession." Yale, vulgarly speaking, carried the bucket. Harvard jumped into the lead the moment her oars struck the water, and though averaging about thirty-four strokes to the minute after the first spurt, to her opponent's thirty-seven, increased her lead at every stroke. On the last mile there were twenty-five boat

lengths between the two crews. Harvard's rowing was remarked upon, though little understood, by all who saw the race. So little effort was apparent in her style, that the uninitiated were at a loss to account for the speed of her boat. While it was manifest that the "Yale giants" were not as well trained as the Harvard men, it was palpable to the merest tyro that the immense distance between the two crews was due to causes other than the physical condition of the rowers. Although, be it remembered, Yale had *improved somewhat* upon the English stroke, yet the laborious wastefulness of her style was in sharp contrast to the *ease* and *dash* of the Harvard stroke.

The moment Harvard's blades gripped the water every man in the boat, with a spring from the stretcher and simultaneous heave of the shoulders, threw his whole weight into the oar, and kept it there until the stroke was finished. The blades were covered throughout the stroke, and remained in the air as short a time as was consistent with the avoidance of "rushing" the slides. There was hardly the slightest perceptible "hang" of shoulders or hands at either end of the stroke. Although the body work was not all that could be desired, the "watermanship" or action of the blades was as smooth as the stroke of a piston-rod.

On the other hand, after making all due allowance for the air of general wretchedness which always surrounds a defeated crew, and for the halo of perfection about the victors, Yale's rowing was really bad. Before the last mile was reached the desperate tugging of her men, the not infrequent splashing of her oars, and other symptoms of fatigue, showed plainly that the pace was too hot for her labored style of rowing. But her reputation for pluck and doggedness was never better sustained. In spite of the conscious hopelessness of the struggle, her efforts throughout the race were titanic,

After the race the usual exculpatory rumors developed the intelligence that the stroke of the Yale crew had been lifted from a sick-bed, and supported, tottering and nerveless, to his seat in the boat. Either this was a laudable attempt to apotheosize Mr. Flanders, or else his powers of recuperation must have been miraculous, for no man ever pulled a pluckier and more apparently powerful oar.

The next year, 1886, Harvard went down to New London with her crew of

'85, with a single exception, presumably strengthened by an additional year's experience. Yale, on the other hand, had a comparatively new set of men. The race was the closest for several years, but ended in the defeat of Harvard by about *five lengths*. This may seem incomprehensible at first sight, but Harvard labored under a combination of untoward circumstances, which alone were enough to account for a defeat of *five lengths*. She was compelled by an accident which happened to her shell prior to the Columbia race, to row in an old class tub, which possessed the additional defect of *shorter slides* and *outriggers* than her *style of rowing called for*. The shorter stroke, which this change necessitated, was visible to all who saw the race. Add to this the fact that, through Yale's aversion to rough water, the race was postponed and rowed up the river in the evening; that Yale, who had the east side, where the swift current which with the incoming tide flows up the course for a mile and a half, was permitted to jump ahead at the start; that Harvard had the dead water on the west side; that in spite of her rough water and ill-rigged tub, after Yale had left her lively current, Harvard gained four or five lengths upon her, and we have sufficient reasons to account for a defeat of *five lengths*. Nor is this all. The hopes of the advocates of the English or Bob Cook stroke, so-called, must fall to the ground like wilted rose-leaves when it is considered that Yale rowed as *nearly the same stroke* as Harvard as close attention and the exercise of some intelligence during a limited time could make it. If the diligent reader of newspaper interviews doubts this truth he should have been at the Thames during the race weeks of '85 and '86.

In noticeable contrast to her "watermanship" of previous years, and in a laudable attempt to improve upon it, Yale exaggerated the rather flat feather of the Harvard oars. But she had almost mastered the idea, so conspicuously absent in the English stroke, of throwing the whole weight of the body, the moment the oar gripped the water, directly against the stretcher. Had the race been rowed in the rough water and wind of the morning, the exaggerated feather, the noticeably longer "hang" at both ends of the Yale stroke, and the weaker "finish"—which last fault must always fail, against a strong wind, to keep the boat jumping between the strokes—would have conspired to defeat her.

In 1887, Harvard, after winning an exciting victory from the fastest crew Columbia ever sent out, and lowering the intercollegiate record, was again defeated by Yale, this time by about seven lengths. Her twice happy rivals deserved all the approbation showered upon them by their overjoyed supporters, for their rowing was magnificent. They had almost the same crew as in the previous year, and had still further modified their style in conformity with the stroke rowed by Harvard in '85. Indeed, to connoisseurs the only perceptible differences between these two strokes were the longer "hang" of the Yale oars before entering the water, the slightly stronger "catch," the slower start of the shoulders on the "recover" and the weaker finish. As the wind blew down the course, these defects did not tell against her. As for her time, it would have delighted the rhythmic sensibilities of a Wagnerian.

Harvard, on the contrary, through her inability throughout the year to secure the regular services of a coach, and on account of her comparatively raw crew, did not adhere as closely in practice as in theory to the standards of '85. After the first two miles, the punishing work her rather young crew\* had undergone *three days previously* in the Columbia race began to tell upon her. They began to "clip" still more off their already short stroke, and their rowing became slightly ragged.

These reasons will answer the question, "Why was Harvard defeated *by seven lengths*?" and, taken in connection with the fact that Yale rowed in a boat as similarly rigged as Harvard's as a foot-rule and the faculty of imitation could make it, will deal a death-blow at any marked individuality which the Yale or Bob Cook system of rowing may now be said to possess. Waters, of Troy, is the boat builder to both colleges. The innuendo, I hope, is quite fathomable.

It is not my intention to cast any slur upon Yale. Indeed, her whole progressive course under the skillful guidance of Mr. Cook, who knows a good thing when he sees it, but is not the aquatic god some would make him, has been marked by rare good judgment. I am merely marshaling my evidence for a final onslaught upon the system of rowing in vogue before '85.

In 1888, a committee of four graduates, only one of whom had rowed in recent

\* The average age of the Harvard crew was about 21, the stroke being 18; while Yale's average was about 24, her stroke being 29.

years, was appointed to take charge of boating matters. Naturally enough they strove to inculcate in the crew those principles with which they were most familiar, viz., those which pertained to the English or Bancroft system of rowing. Despite the fact that the method introduced by Storrow had brought about the overwhelming defeat of the Yale giants in '85, despite the manifest adoption by Yale of the essential features of this method, and her consequent successes, and despite the marked improvement in the speed of the boat since '85, the crew of '88, we are told, endeavored to "*unlearn the radically wrong principles*" of the three previous years. The endeavor was pre-eminently successful, and what was the result? A crushing defeat, such as had never been seen upon the Thames. At one time in the race there was almost half a mile between the two crews. Yale, naturally enough, retained the principles, the efficacy of which she had tested, and gave even a better exhibition of rowing than the Harvard crew of '85,

My standpoint is well illustrated by a letter to the New York *Spirit of the Times* of September 29th, upon "Why Yale beats Harvard." The letter is written by a man "who has done for Harvard good work with the oar." Among other good things he says (the italics are my own): "The Yale and Columbia crews of 1886 beat Harvard *after close races* because they adopted to a considerable extent the *same system and ideas* that Storrow had taught Harvard the year before. Yale beat Harvard again last year because she still believed in and practiced the same system, while Harvard seemed to have *endeavored to forget as much of it as possible*. The contrast between the styles of rowing of the Harvard and Yale crews in the race was *most striking*. The Yale crew carefully covered their oars at the beginning of the

stroke, and kept them covered to the end, maintaining a firm pressure throughout, the appearance of their oars in the water reminding the observer of the Harvard crew of '85, but otherwise their work was far superior to the Storrow crew. The Harvard crew seemed to have forgotten the accepted principles that govern the management of the oar in the water; their blades made a *complete circle*, and but a *small arc* of its circumference entered the water, the oar being *fully covered but an instant of time*. In their *body work they followed the principles taught by Bancroft*, but did not attain the smoothness which Bancroft himself, and his more skillful pupils acquired. In this respect they *tried to follow the English system*, and seemed to *have adopted the English style of rigging*, for their slides were noticeably shorter than those of the Yale crew. The whole course of the committee clearly showed their incompetency to direct the crew." And again: "It is reported that before coming to New London they rowed a series of races with a scratch crew, composed of substitutes and old rowing-men about Boston, and *were beaten again and again*, although the men in the scratch crew *had never before sat together in a boat*."

Rather a striking coincidence with the feat of the '78 crew who rowed the same stroke, is it not?

So much for what the history of college boating during the past five years can show. The supporters of the English system of rowing are welcome to any solace they may derive from a perusal of it,

It seems incredible that any doubt as to the superiority of one system of rowing over the other should still linger in the minds of Harvard men,

But the result of last year's race leaves them, no doubt, "more troubled than the Egyptians in a fog."

To be continued.

