

The Rise and Fall of the Flying Wedge: Football's Most Controversial Play

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Napoleon Bonaparte would have been pleased. His three principles of military art—concentration of force, mobility, and a firm resolve to triumph or perish gloriously—had been made functional for late-nineteenth-century inter-collegiate football strategy in America.¹ Football's most controversial play was first launched in 1892, when Harvard took the field to begin the second half of its battle against arch rival and perennial power Yale. Just like Napoleon, the Crimson surprised its opponent at the tactical level of physical combat. Ten men, running full tilt in a "V" formation from a position some yards behind the ball, massed upon one Yale player. Thus, the flying wedge was born, and an already violent game brought forth the most revolutionary football play ever developed. It was a vivid example of the brutality which then ruled the sport.

Over a century ago, a crowd of 21,500 fans squeezed into the grounds of Hampden Park in Springfield, Massachusetts, on the last Saturday before Thanksgiving for the annual Harvard-Yale game. Bleacher seating accommodated 19,500 spectators, most of whom had travelled to the site on trains which serviced the increased traffic between Boston and New York. An additional 300 sat within the press enclosure. 700 stood, and possibly 1,000 viewed the contest from neighboring houses, trees, and railroad bridges.² While rumors persisted that the Crimson had developed revolutionary plays at its York Harbor, Maine, summer training camp,³ what occurred on that sunny, crisp autumn day was truly unexpected.

The scoreless first half had been a classic defensive battle, played between the 20-yard lines. To start the second half, the rugby-like football rules that governed intercollegiate football at that time permitted a Harvard man to either kick the ball deep to the opposition, or to lightly touch the ball with his

1. Gordon A. Craig and Felix Gilbert, *Makers of Modern Strategy: From Machiavelli to the Nuclear Age* (Princeton, NJ: Princeton University Press, 1986), p. 136.

2. *Spirit of the Times*, 26 November 1892, p. 704.

3. Theodore S. Woolsey, York Harbor, Maine letter to Walter Camp, New Haven, Connecticut, ca. 17 July 1892, Theodore S. Woolsey Folder, Walter Camp Papers, Yale University Archives. Woolsey reported that Lorin Deland was adapting "military strategy to football" and "testing the practicability of these new plays." Yet, Woolsey questioned whether Harvard players could carry them out. He noted: "To work them out at all would require a standard of team play which Harvard is not usually up to."



Harvard's Flying Wedge was the ultimate of the mass momentum plays.

foot, then pick it up and pass it to a teammate. The startling new flying wedge necessitated the latter option.

Harvard captain Bernie Trafford initiated the play with the remainder of the Harvard 11 located a number of yards behind the ball which lay at mid-field. Five of Harvard's heaviest men were located some 20 to 30 yards behind the ball at about a 45-degree angle to the sideline and in line with the ball. This quintet was led by William H. Lewis, the first African-American to be chosen a Walter Camp all-American football player. Opposite Lewis and his slower but heavier group were four of the faster men. They were located somewhat closer to, but on the other side of, the ball. They, too, angled from the sideline toward the ball. Art Brewer, a fast and shifty freshman halfback, was located between the two halves of the wedge, ready to receive the ball from Trafford. Upon the captain's signal, the heaviest men began a sprint toward Trafford, while the faster men on the other side came toward them to create a wedge-like formation. As Trafford picked up the ball, the two lines met just beyond him and directed their three-quarter ton of massed momentum toward one man on the opposing line who would catch the brunt of their attack; that is, Harvard's objective was to mass all their effort at Yale's Alex Wallis, located toward the end of Yale's right side, and to literally mow him down. Brewer, who was trailing the wedge at top speed, was expected to find a hole created by the flying bodies and break through to the rear of the Yale defense, as Napoleon would have it, for a large gain or possible touchdown.⁴

4. There were varying accounts of the first play, and were not all consistent. See *New York Herald*, 20 November 1892, pp. 6, 15, and 24 November 1892, p. 4; *Spirit of the Times*, 26 November 1892, p. 7043; *New York Times*, 20 November 1892, p. 3; *Boston Globe*, 20 November 1892, in Harvard Intecollegiate Sporting craps, begun 1892, HUD 8392.2F, Harvard University Archives; Parke H. Davis, *Princeton's Athletic Records*, 1860-1910, Bound ms, Princeton University Archives; and Almos Alonzo Stagg and Henry L. Williams, *Scientific and Practical Treatise on American Football* (Hartford, CT: Privately printed, 1893), p. 197.

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As Brewer had gained 20 yards over Wallis' position and the deceived Yale team. the play was successful. But the concept of 10 men in motion colliding at full speed with a single defender was an omen of even greater success. "It was a play." read a *Boston Herald* account. "that sent the football men who were spectators into raptures."⁵ Amos Alonzo Stagg, who had just taken the football coaching position he would make famous at the University of Chicago. included the play in his new book on scientific football the following year and called the play "the most spectacular single formation ever."⁶ Parke Davis, a contemporary football player from Princeton and early football historian, believed that "no play has ever been devised so spectacular and sensational" as the flying wedge.' "What a grand play!" wrote the *New York Times*. "a half ton of bone and muscle coming into collision with a man weighing 160 or 170 pounds." Yet, the *Times* warned. "A surgeon is called upon to attend the wounded player, and the game continues with renewed brutality."⁸

Despite the injurious consequences of the flying wedge, physical violence in football at this time seemed justified due to the desire of educational and political leaders to foster masculinity in an emerging technological and urban society that many thought had gone effeminate. Football, they claimed, was a healthy exhaust pipe for the surplus energy of youth pent up in a paternalistic system of higher education.⁹ Theodore Roosevelt, a half-decade before becoming President, told Yale's Walter Camp that "I would a hundred fold rather keep the game as it is now, with the brutality, than give it up." A leader, Roosevelt contended, "can't be efficient unless he is manly." and the roughness of football helped produce the needed masculine vigor.¹⁰ A University of Virginia professor remarked: "If I should pick out a man whom I could follow in peace and in war, my choice would be a good football player."¹¹ These quotes echoed a strong belief that in an era with no frontier left to conquer, football produced rugged men and virile leaders. The game of football, then, might not only be a substitute for war, but a palliative for a nation in danger of losing its pioneering spirit.

As much as it was considered a producer of manliness, the flying wedge was hailed by some as a positive reflection of scientific thinking applied to

5. *Boston Herald*, 20 November 1892.

6. Amos Alonzo Stagg and Wesley W. Stout, *Touchdown!* (New York: Longsman, Green, 1927), p. 182

7. Parke H. Davis, *Football the American Intercollegiate Game* (New York: Charles Scribner's Sons 1911), p. 94.

8. *New York Times*, 2 December 1893, p. 3.

9. See Ronald A. Smith, *Sport and Freedom: The Rise of the Big-Time College Athletics* (New York: Oxford University Press, 1988), pp. 95-98.

10. Theodore Roosevelt, Civil Service Commission, Washington, D.C., letter to Walter Camp, New Haven, 11 March 1895, Folder "1895-1906" Box 22, Walter Camp Papers, Yale University Archives Three years later, Roosevelt was leading his "Rough Riders" to victory in the Spanish American War. The martial imagery and manliness of college football and its relation to growing imperialistic impulses has been noted elsewhere; see Smith, *Sports and Freedom*, pp. 95-98, 116.

11. Walter Camp, *Football Facts and Figures* (New York: Harper & Row, 1894), p. 205.

football. Coaching staffs had been expanded to the extent that the better teams employed specialized position coaches. The strategic progress of college football rested with these advisors in devising new possibilities for scientific plays and arranging them in a well-ordered series as Harvard, Yale, and Princeton were doing. While progress in the protective aspects of football gear was seen in the development of rubber-cleated shoes,¹² neck-to-knee leather uniforms to replace water-absorbing sweaters and heavily padded moleskin pants,¹³ and the first-ever quarterback flak jacket (a steel plate worn by Princeton quarterback Phil King to protect his ribs),” it was left to a Boston businessman and admirer of military strategy to counter any advances in player safety by inventing possibly the most brutal play ever devised in the game of football.

Ironically, Lorin F. Deland never played football. In fact, he did not see his first game until 1890.¹⁵ But after that first game, he was taken by the sport, spending hours studying its principles and devising plays. The strategies carried out on the football field, Deland came to believe, were relatively the same as those executed by armies during battle. This notion prompted him to re-read his well-worn books on Napoleon’s military tactics and the histories of his campaigns. “One of the chief points brought out by the great French general,” Deland observed, “was that if he could mass a large proportion of his troops and throw them against a weak point of the enemy, he could easily defeat that portion, and gaining their rear, create havoc with the rest.”¹⁶ Translating this idea to football, Deland concluded that if a football team were so arranged that the 11 men could throw their entire weight against a necessarily stationary and detached opponent, great gains of yardage would be made. As the 1982 Harvard-Yale game would demonstrate, the New England entrepreneur was correct.

Typical of the late-nineteenth-century intercollegiate athletic climate, the Ivy League schools were models for other institutions to emulate. coaches and players in other areas of the country soon knew of the devastating potential of the flying wedge, and it was adopted in 1893 as football’s most promising strategic innovation. If the original formation of Harvard had not given Yale enough concern, the following year Penn gave Yale more trouble. Yale had had its way with opponents since 1890, running off 1,355 unanswered points. But in the Penn game, the Yale line was battered repeatedly by a variation of the flying wedge. Penn coach George Woodruff, one of the most innovative coaches of that day, called it the “flying interference,” which he ran from the line of scrimmage. Although losing the game 14-6, Penn

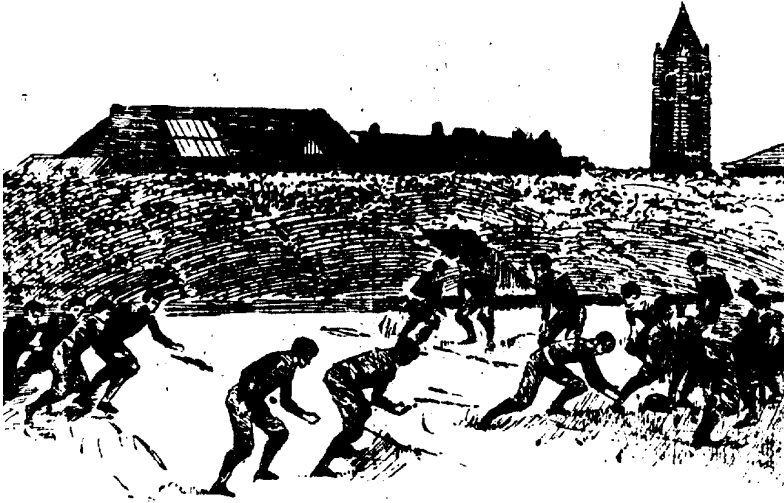
12. *New York Times*, 16 October 1893, p. 8.

13. *New York Times*, 28 November 1893, p. 3; *Boston Globe*, 7 October 1905, p. 11; 11; L. H. Baker, *Football: Facts and Figures* (New York: Farrer & Rinehart, 1945), p. 595.

14. *New York Times*, 4 November 1893, p. 3.

15. J. H. Sears “*Harper’s Weekly*, 2 December 1893, p. 1147.

16. *Ibid.*



THE DELAND FLYING INTERFERENCE.

The Deland Flying Interference

partisans saw it as a red-letter day in its athletic history by scoring against the Eli. Yale had been unscored on for 35 straight games stretching over four seasons. “Years hence, when the present members of the Penn team have retired from active participation in outdoor sports, and are making goals and touchdowns in the battle of life,” an 1893 Penn partisan boasted. “each will take his children on his knee, and, with feelings of joy, relate how Papa did his share to score against Yale.”¹⁷ Harvard, that same year, gained only 2.3 yards per carry utilizing old-fashioned ways, but amassed almost double the yardage using the flying wedge.¹⁸ With only five yards needed for a first down in three attempts and the forward pass yet to be legalized, the innovative play quickly became the focal point of offensive strategy.

New adaptations of the flying wedge soon emerged, as Woodruff had done at Penn. As the 1893 season progressed, the flying wedge was no longer a tactic used solely when teams lined up for kickoffs. Lorin Deland prepared 60 new momentum plays in the off-season, plus a counter-play for each of the new offensive formations to be run from the line of scrimmage.¹⁹ Fake flying wedges from which the ball could be punted to the open field, misdirection mass momentum plays, and overhand laterals beyond the jumbled mass of bodies (a pre-modern play-action pass) became the fashion for college teams.²⁰

17. *New York Times*, 12 November 1893, p. 2

18. *Outing*, XXIII (January 1894), p. 67.

19. *Ibid.* (October 1893), p. 1.

20. *Ibid.* (January 1894), p. 67.



Princeton's Flying Wedge

Along with the evolution of offensive maneuvers arose defensive schemes to stop the imposing array of flying wedge plays. Yale, at times, simply avoided a massive collision. Rather than charging its men to meet the converging wedge, the men in blue sweaters stood aside, let the Harvard interference run through, and then tackled the unprotected ball carrier.” Harvard, though, opted for alternative defensive methods. Taking positions five yards behind the line of scrimmage, Crimson defenders began their own mighty assault the instant Yale shot forward. The disastrous result: 22 men in a crumpled heap, bodies bruised and bones broken.

Describing the season-long transformation of healthy college men into bruised and shattered skeletons, a *New York Times* columnist sarcastically wrote:

Every wind that blows from the east will bring us the sound of cracking arms and also ribs. . . We shall learn that centre rush has lost thirty pounds in three days and is going into a decline: that right guard's ears have been sewed on just for this occasion, and are likely to fall off at any moment, leaving him unable to hear the signals: that left tackle is playing with a wooden leg; that right end has heart disease: that quarter back's arms have both been broken and have not knit yet; that one of the half backs cannot see. and that full back has water on his kicking knee.²²

The flying wedge had exhorted manliness at a terrible cost.

21. Newspaper clippings, Harvard Intercollegiate Sporting Scraps, begun 1892, HUD 8392.2F, Harvard University Archives

22. *New York Times*, 1 October 1893, p. 4.

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Still, philosophical support could be gathered for utilizing the flying wedge. Penn's George Woodruff believed football to be a cultivator of determination and Spartan-like fortitude. Rather than limit mass momentum plays. Woodruff called for a reduction in the all-too-common habit of "playing baby" on the field. "There should be less delay of game. less sponging during a game. less fuss about injuries already received," Woodruff believed. "If the hurt is great the player should leave the field; if small he should smile and play harder."²³

But just as Napoleon met his Waterloo, so, too, did the flying wedge. College leaders, faculty as well as athletic, adjudged the play to be an undesirable feature of the 1893 season. More than sport, some claimed mass momentum plays were "relics of the Theban phalanx." In ancient Egypt, the troops of Thebes fought with a mass of infantry holding spears, the hinder ranks thrusting their longer spears between the front-line men. This disciplined formation went through anything less disciplined that opposed it.²⁴ In its own way, the flying wedge was intended to do much the same though the spears were not visible, being only in the minds of the players.

Reform could come only through the Football Rules Committee, headed for years by Walter Camp, the "Father of American Football." The conservative Camp, Yale's athletic advisor for nearly a half-century and sometimes head football coach, became the reluctant reformer. He was, indeed, more interested at first in creating a "fair catch" rule to protect the punt receiver than in abolishing the flying wedge.²⁵ Yet, Camp wanted foremost to preserve the game he helped to create, and this end necessitated a change by his rule-making body. So Camp finally decided the flying wedge was not only dangerous but also unsportsmanlike. He contended that aspects of the English game of rugby, from which American football had evolved, should be necessarily reclaimed in order to prevent college football from destroying itself. He therefore suggested several solutions for the flying wedge quandary. First, football could return to the time when interferers or blockers leading the ball carrier were illegal. Second, if the rules mandated a long kick or lateral pass on the third and final down, the game would be opened up and mass plays less favored. Third, the distance needed for a first down might be extended to 10 yards or a team might be required to advance the ball at least 15 yards to either side of the original ball marking, thus promoting a more open game with end runs. Finally, Camp suggested the possibility of prohibiting offensive players from changing positions prior to the snap of the ball, hence limiting the number of blockers for the ball carrier.²⁶

23. Woodruff, quoted in Camp, *Football Facts and Figures*, p. 128.

24. Charles F. Gilman, quoted in Camp, *Football Facts and Figures*, p. 181. H. G. Wells in *The Outline of History* (Garden City, NY: Garden City Publishing, 1920), P. 313, notes the impact of various mass infantry formation in ancient history.

25. *New York Times*, 8 February 1894,

26. Walter Camp, "The Current Criticism of Foot-ball," *Century Magazine*, XLVII (February 1894), pp. 633-634, and *Outing*, XXIII (January 1894), p. 66

While blocking for the ball carrier and dictating long kicks or lateral passes on third down remained intact, and expanding the first-down requirement to 10 yards was not codified, the rule makers did rule out the flying wedge. After one full season of the flying wedge, in which 10 men could be in forward motion at the same time, the football rules committee ruled that mass-momentum plays were no longer to be allowed.²⁷ A momentum play was thereby defined as one in which more than three men started before the ball was put in play. Though other mass plays continued under the restricted rules, the flying wedge was no more.

Nevertheless, adaptation of Napoleon's military strategy changed the face of college football after that Harvard-Yale game of 1892. Players and coaches, displaying an intense need for conquest and domination, embraced military designs and applied them to football. With the flying wedge abolished and teams no longer granted the privilege of concentrating a massive moving force upon a single decisive point, President Jacob G. Schurman of Cornell was moved to optimistically write: "In a few years I suspect the current views on athletics will be looked upon as hallucinations: and we shall all return to the good old watch words of self-respect, moderation, and the greatest good to the greatest number."²⁸ He was wrong. More than a century later, athletes and coaches are still learning well the lessons of warfare grandly taught on the gridiron by Harvard and its flying wedge.

27. Baker, *Football: Facts and Figures*, p. 546.

28. John Roosa, "Are Football Games Educative or Brutalizing?" *Forum* (January 1894), pp 643