

Isometrics or Steroids? Exploring New Frontiers Of Strength in the Early 1960s

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“The Most Important Article I Ever Wrote” was the expression applied by Bob Hoffman, editor and publisher of *Strength & Health* magazine, to his revelation in the fall of 1961 of a new fitness technique called functional isometric contraction. As president of York Barbell Company, Olympic coach, and a leader in weightlifting for three decades, Hoffman had been searching for a magic formula that would restore the United States to the forefront in international competition and enhance his fortune. As a result of experiments conducted on two American weightlifters in the preceding year by John Ziegler, a physician in Olney, Maryland, Hoffman believed he had at last found the elusive secret to winning gold medals. Utilizing isometrics (exerting force against a stationary object), Bill March of York, Pennsylvania, and Louis Riecke of New Orleans had seemingly exhibited the same pioneering spirit as early astronauts Alan Shepard and Yuri Gagarin with their “trips into the unknown.” It was “the greatest system of strength and muscle building the world has ever seen,” insisted Hoffman, who forthwith offered for sale a line of products for aspiring lifters and fitness enthusiasts to try to emulate the achievements of champions.¹ But isometric contraction proved to be a passing fad, and when it was later revealed that March and Riecke had been taking anabolic steroids along with their isometric workouts, insinuations of deception were made against those who had advanced the new science.

For several decades much attention in the weightlifting community has been focused on the *process* by which these new techniques of strength enhancement were discovered by athletes and how it related to the larger questions of commercialization and medical ethics in sport.² Allegations of an unholy alliance between Ziegler’s research and Hoffman’s business interests

I am grateful to Lois Reicke and Carol Zeigler for allowing me to use papers in their possession in the preparation of this article.

1. Bob Hofman, “Revealing the new power system,” *Strength and Health*. 29 (November, 1961): 30-31.

2. Related questions of the cold war climate of the early 1960s and America’s increasing preoccupation with drugs in the era will be addressed in the forthcoming study on “Bob Hoffman and the York Barbell Company” to be published by the University Press of Kentucky.

emerged initially from the rumor mill that has always thrived in the “iron game.” They were first honored in print by former York employee Bill Starr whose short-lived *Weightlifting Journal* in the early 1970s was critical of Hoffman’s domination of the sport. “Hoffman, knowing that he could not capitalize on the sale of steroids, jumped in the slot with his isometric courses and equipment,” he explained. “Hoffman made a mint . . . as lifters throughout the world pulled and pushed hoping to get as strong as March and Riecke.”³ A sage influence in subsequent years was Charles Smith, a former writer for Weider Publications, Hoffman’s chief competition. Calling him a “hypocrite,” Smith believed that Hoffman was “well aware [of] what Dr. Ziegler was doing at York and he also, possibly, knew it was not kosher.” With varying associations of guilt, Ziegler is remembered chiefly as the “Father of Dianabol.”⁵ Samuel Fussell’s expose of bodybuilding attributes the modern drug scene in sports to Ziegler’s development in 1958 of anabolic steroids “in the interest of national prestige.”⁶ And John Hoberman, in his scholarly study of the influence of science on athletic performance, traces the current “anabolic steroid epidemic . . . back to the actions of one man—Dr. John Ziegler.”⁷

More sustained attention was lavished on “the steroid predicament” by Terry Todd in a 1983 article in *Sports Illustrated*. Todd explains that his involvement began in 1962 when neither he nor his training partners were benefiting from isometrics, then being publicized as a breakthrough in strength training. “We thought we understood the new system, but though we huffed and puffed and even ruptured an occasional capillary, we failed to make much progress.” An exception was “a 35-year-old friend” who had made “startling advances in power and musculature” using isometrics. Subsequently Todd’s friends made a trek to York to clarify this anomaly. They discovered that

the guys in York were training more or less as we were, and though I found the news depressing, my friends plunged back into their exercises with increased enthusiasm and with a growing tendency to look at one another in a knowing way during workouts and laugh out loud. Finally they showed me a small brown bottle that contained 100 five-milligram tablets of Dianabol. “This is the secret,” they told me. “It’s these little pink pills, not the isometric contraction.” And so it was.

The means by which “the York lifters and Hoffman got wind of isometric contraction—and anabolic steroids,” of course, was Ziegler. “I decided to

3. Bill Starr, “Isometric Farce,” *Weightlifting Journal*, 1 (June, 1972); 29.

4. See Smith to the author, November 17, 1987. Letter in the author’s possession.

5. Denie and Robert Goldman, “Father of Dianabol,” *Muscle Training Illustrated* (April, 1980): 5.

6. Samuel Wilson Fussell, *Muscle, Confessions of an Unlikely Bodybuilder* (New York: Poseidon Press, 1991), pp. 118 and 165.

7. John Hoberman, *Mortal Engines, The Science of Performance and the Dehumanization of Sport* (New York: Free Press, 1992), pp. 266 and 349.

try the steroids and the isometric contractions on a few of the top U.S. Lifters,” Ziegler recollected, “but I wish to God now I’d never done it. I’d like to go back and take that whole chapter out of my life.” Testimony from the “35-year-old lifter” (actually Louis Riecke) was also provided by Todd. Though not willing to ascribe his progress to any single factor, he recalls that “I was making great gains, and I thought the routine was doing it. In retrospect, though, I’m sure a lot of it was the pills.”⁸ Useful though Todd’s revelations might be, much uncertainty persists over how much was known in the early 1960s about the ergogenic effects of isometrics vis-à-vis steroids, the extent to which commercial motives were prevalent, and whether Ziegler exceeded the ethical bounds of his calling.

Despite outward appearances as a “country doctor,” John Bosley Ziegler was well situated in the early 1950s to instigate breakthroughs in the science of strength. Born in the Midwest, he returned to his roots in southern Pennsylvania and graduated from Gettysburg College in 1942. Scion of three generations of doctors going back to the Civil War, his father combined the roles of practicing physician and scientist—his most noted discovery being the salt tablet. Preparations to follow in the footsteps of his forefathers were interrupted by service as a Marine officer in the Pacific theatre of World War II where his 6’4”, 240-pound, frame was riddled by Japanese bullets. After extensive surgery and convalescence, he entered the University of Maryland Medical School with the intention of helping others recuperate from similar disabilities. His internship and residency at Marine hospitals in Norfolk and Mobile were followed by two years’ residence in neurology at Tulane Medical School in New Orleans. Ziegler was a complex personality—highly intelligent, original, eccentric, and often outrageous. After settling in Olney in 1954, he specialized in the treatment of handicapped and seriously injured patients. With a romantic’s love for the Civil War and the Old West, he often dressed up as a westerner and had friends call him “Tex” or “Montana Jack.”⁹ Ziegler was also a “hell raiser.” One friend described him as “a big man with big appetites and a keen sense of humor. . . what one would consider a man’s man.”¹⁰ Ziegler was not satisfied with just regular patients. He sought out unusual physical specimens and craved the opportunity to explore new scientific frontiers.”

Ziegler’s initial contacts with York occurred when he began working out

8. Terry Todd, “The Steroid Predicament,” *Sports Illustrated*, 59 (August 1, 1983): 64-66, and “Anabolic Steroids: The Gremlins of Sport,” *The Journal of Sport History*, 4 (Spring, 1987): 93-95. Also see Todd’s update on “Steroids: An Historical Perspective” in *Iron Game History*, 1 (April, 1990): 1-3.

9. “Professional Biography of John Bosley Zeigler” by Bill St. John in the author’s possession. Olney, Maryland; Terry Todd, “The Jovial Genius of Dr. John Zeigler,” *Strength & Health*, 33 (October, 1965): 44-45.

10. Typescript on “Dr. John B. Ziegler” by Bill St. John in the author’s possession.

11. According to Hoffman, Zeigler “leads about as irregular a life as a man could lead.” Like Thomas Edison, he slept only several hours daily. He claimed that his best work was done between midnight and 5 a.m. because there were fewer interruptions. Bob Hoffman, “More about Isometric Training,” *Strength & Health*, 30 (December, 1961): 15.

at a gym in nearby Silver Spring. There he became acquainted with John Grimek, one of Hoffman's lifter/employees, who occasionally visited this club. Grimek was probably the most gifted strength athlete of his era. Though past his prime, he had been an Olympian, a Mr. America (twice), and Mr. Universe. For more than a decade he was acclaimed to be the world's best-built man. Grimek recalls that Ziegler, who "really wanted to be in research," was working on his off days for CIBA pharmaceutical company which was supplying him with testosterone for experimental purposes. It also provided him with books and records from Germany where similar experiments were carried out by the Nazis. Ziegler's first application, according to Grimek, was on an appendectomy patient. Then he treated a burn victim and even administered doses to himself. By the time Grimek met him, Ziegler was giving testosterone injections to fellow trainees in Silver Spring.¹² The only drawback was that they were not sufficiently advanced for him to gauge the ultimate effects of drugs. It was therefore advantageous for Ziegler to acquire some of the strongest and best-built men in the world.

That the administration of drugs would have any great impact on body-building competition or enhance America's international lifting prestige occurred to no one at first. Grimek's interest, like Ziegler's, stemmed largely from an innate curiosity on how such potions from the genie's bottle might stimulate muscular growth and performance. By the summer of 1954 Grimek was experimenting with a variety of chemical substances provided by Ziegler.¹³ In October, Ziegler accompanied the United States' weightlifting team, coached by Hoffman, to the world championships in Vienna. On returning, Ziegler testified that he was annoyed by members of the Soviet delegation who thought he was "stimulating our boys with some kind of drug to make them lift better." A Russian physician kept asking: "What are you giving your boys?" He was especially curious about the chewing gum Ziegler kept giving to the lifters, so Ziegler "gave him a piece which he immediately wrapped in a note. I found out later that it reached an MVD agent and was perhaps sent away for analysis, as were samples of my liniment and aspirin."¹⁴ Much later, Ziegler talked about how the Russian doctor, after "a few drinks," revealed that "some members of his team were using testosterone."¹⁵ And it was evident that Soviet athletes were not only "using straight testosterone" but "abusing the drugs heavily," even to the extent of "having to get catheterized!"¹⁶

12. Interview with John Grimek, July 19, 1991, York, Pennsylvania.

13. Grimek to Zeigler, August 25, 1954, Zeigler Papers.

14. Gene Schumate, "Russians Threw Their Weight Around in the Vienna Meeting," *The Washington Daily News* (November 1, 1954), p. 30.

15. Todd, "The Steroid Predicament," 66.

16. Bob Goldman, *Death in the Locker Room, Steroids and Sports* (South Bend Indiana: Icarus Press, 1984), p. 1. Hoffman suspected similar experimentation by the Soviets at the Helsinki Olympics in 1952. "To get the best performance they gave their men oxygen and made them smell ammonia before every lift. I think they were taking injections of some kind, too. They would come out glassy-eyed, like wild men, and lift like crazy. The stuff would wear off and they would be normal again." "Weight Lifting Interest Reds," *Wilmington Morning News*, April 25, 1958.

However much Ziegler might have suspected drugs to be critical in the Soviets' triumph over American lifters in Vienna, his experiments on York musclemen in this period were less than enlightening. He administered testosterone to 1952 Mr. America Jim Park, featherweight champion Yas Kuzuhara, and Grimek, who recalled how Ziegler

tried to convince me that if I took these shots 2 or 3 times a week, I would get stronger and more muscular without training...but I saw no reaction. In fact I told him I was feeling lousy compared to what I feel normally. So he suggested I return to training. I did. But after 6 weeks I gave it up [the shots]. I got no results.¹⁷

Nor did Park fare any better. He states that he received only one dose, and its only effect was to give him an instant erection upon seeing *any* female.¹⁸ There is no evidence that Hoffman or anyone else at York saw any potential for the drug. Whether Ziegler became discouraged with the results, feared possible side-effects, or became overburdened with regular patients cannot be ascertained, but he engaged in no further research with muscle-enhancing drugs until the end of the decade.¹⁹

When the connection was reestablished between Ziegler and York, Grimek again served as the vital link. Ziegler revealed to him in January 1959 that he was studying the "one-a-day maximum contraction of muscle" theory. He had collected "quite a bit of information," but had "not definitely proven anything. I am interested in following it up."²⁰ This technique for developing strength was hardly new. Promulgated by fitness patriarch Bernarr Macfadden at the turn of the century, it was marketed as "dynamic tension" for decades by mail-order strongman Charles Atlas.²¹ In the 1950s two German scientists, Erich Mueller and Theodor Hettinger, formalized the concept by having their researches on it published in academic journals.²² In North America their findings were enthusiastically endorsed by various professors, foremost of whom was C. H. McCloy of the State University of Iowa. In the September 1959 issue of *Strength & Health*, McCloy is shown performing a series of such exercises. "The results in terms of *strengthening* of the muscle," he argued, "may be very marked."²³ Ziegler was sufficiently impressed to experiment on a young York lifter named Bill March. At the end of 1959 company assistant Dick Smith began driving March regularly to Olney to be trained by Ziegler. In addition to the isometrics, according to

17. Grimek to the author, February 15, 1990, letter in the author's possession.

18. Interview with Jim Park, Decemebr 22, 1990, Ripley, West Virginia.

19. According to Todd, Zeigler's "practice grew between 1953 and 1963 to such an extent that he often saw 80 patients in a single 20-hour day." Todd, "Jovial Genius," 66.

20. Zeigler to Grimek, January 22, 1959, Zeigler Papers.

21. See Robert Ernst, *Weakness Is a Crime, The Life of Bernarr Macfadden* (Syracuse: Syracuse University Press, 1991), p. 114.

22. T. Hettinger and E. A. Mueller, "Muskelleistung und Muskeltraining," *Arbeitsphysiologie*, 15 (October, 1953): 111-126; and Erich A. Mueller, "The Regulation of Muscular Strength, *Journal of the Association for Physical and Mental Rehabilitation*, 11 (March-April, 1957): 41-47.

23. C. H. McCloy, "Isometric Exercise Program," *Strength & Health*, 27 (September, 1959): 24-25.

Hoffman, March was provided with “copious quantities of Hi-Proteen and Energol, vitamins, particularly Liver-Iron and Vitamin B12” and subjected to “positive thinking” therapy that “verged on hypnotism.”²⁴ None of these aids appeared to affect March initially.²⁵

What drugs the York lifter was also receiving from Ziegler remains unknown, but Grimek was soon the recipient of the latest of his laboratory concoctions. He recalls that CIBA asked Ziegler

if he wanted to try these steroids on athletes, since they knew he got involved with the lifters. He gave me one of those half-bushel baskets with the pills to try and get some of the lifters to try them. No one would. And Hoffman was against anything of that sort at the time, mainly because this was late '59 and everyone was geared up for the '60 Olympics.²⁶

By the time Hoffman returned from the European Championships at Milan in early May of 1960, Ziegler suspected that “the Russians are giving their athletes ‘something.’” He therefore asked Grimek to propose to his chief that steroids be administered to prospective members of the American Olympic team. Hoffman, though interested, was cautious. He felt that it was “too close to give to the men who will represent the USA,” was Grimek’s reply. “Apparently, he doesn’t think it will do that much good, and may even have detrimental effects, . . . He appears doubtful.” Grimek thought Hoffman himself would be an excellent guinea pig for Ziegler’s drug. “If his lifts come up in a short time, then it might be proof.” But mostly he seemed mystified by it. “How soon can one feel effects?” he asked. “What are the outward symptoms or reaction, any?”²⁷ What seems obvious is that no one from York was eagerly embracing steroids at first, and that they gained experimental use only because of Ziegler’s insatiable curiosity.

Eventually in late May, Grimek persuaded two fellow trainees, Bill March and Tony Garcy, to take the drug. The former, after taking steroid tablets (10 milligrams per day) for a month, was “showing improvement and looks better.”²⁸ Garcy, a 20-year-old El Paso lightweight who had just moved to York, added nearly 100 pounds to his three-lift total after only two months on steroids. In a 1966 article, however, he attributed his miraculous progress to mental coaching he had received at York from Tommy Kono, America’s greatest champion in the previous decade. “I was training hard at the time,” Garcy recalled, “but the most important thing, I believe, was the fact that Tommy Kono was ‘grooming’ me mentally. . . . He had me believing that I

24. Hoffman, “Revealing the New Power System.” 30–31.

25. Telephone interview with Bill March, January 7, 1992.

26. Grimek to the author, February 15, 1990.

27. Grimek to Ziegler, Wednesday p.m. [May 11, 1960], Ziegler Papers.

28. Grimek to Ziegler, n.d. [late June 1960], *ibid.*

could do anything.”²⁹ And what mental preparation seemed to be doing for Garcy, isometric contraction was finally starting to do for March. The lifting gains were obvious: that they came from steroids was not. That tiny pink pills could make you strong was still incomprehensible in the early sixties. On August 7 Grimek also started taking the steroids. “Sorry to report,” he told Ziegler a month later, “no change, no improvement, no nothing . . . if anything I’m worse. Both shoulders hurt and am unable to do hardly any exercises. . . . They haven’t been this sore for ages. I don’t know what happened or how they got so miserable.”³⁰ Ziegler never divulged whether the drug was effective on himself, but the results thus far from his musclebuilder subjects were hardly conclusive.

By the time of the Olympics, Hoffman relented on his previous stance. He administered steroids to certain American lifters in Rome, with no knowledge of appropriate timing or doses. Hence much uncertainty prevailed as Grimek reported to Ziegler on September 7 that bantamweight Charles Vinci

so far is in the lead by 22 lbs.. but he made only a 231 press, and a 236 snatch, both of which he is capable so didn’t seem as if the “pills” helped that much. Though the clean and jerk will be his real test. . . . Vinci so far has managed only 302. . . but could or MIGHT do more in a pinch so these pills may be a factor yet. The Russian heavyweight is too far ahead of our men, so unless the pills really give Ski [Norbert Schemansky] and [James] Bradford an added lift, they will do no better than 2nd or 3rd.

When the team returned to York, Grimek tried to assess the drug’s effects, but to no avail. “How’s the ‘anabolic’ working on you?” he asked Ziegler.

It done nothing for me. The fellows claimed it did nothing for them, yet each did good or better than they’ve done in the past. . . in spite of LOSING. . . . I have not discussed it with Hoffman yet as to how much he gave, and to whom he gave the tablets, to see if those who took it were the ones who did better than in the past.³¹

A comparison of the Olympic performances of American lifters with their previous high totals shows that four registered gains, two declined, and one stayed the same. The Soviets, handily beating the United States, displayed spectacular increases over previous outings. Admittedly there were many possible factors, not least of which was the added inspiration of the Olympics, but no one at York was prepared to ascribe any gains by American or foreign athletes to steroid usage.

29. Tommy Suggs, “Behind the Scenes,” *Strength & Health*, 44 (December, 1996): 43. Garcy now admits that effects of steroids were “immediately noticeable,” but everything he said about Kono’s mental coaching was true. Unlike other York lifters, however, he received little benefit from isometrics which he only started practicing after the Rome Olympics. Telephone interview with Tony Garcy, February 20, 1992.

30. Grimek to Zeigler, Thursday [September 15, 1960], Zeigler Papers.

31. Grimek to Zeigler, September 7 and 15, 1960, *ibid.*

At this juncture Ziegler developed a relationship with Riecke who had been a national level lifter since 1947. Though he had won the Junior Nationals in 1955, he was never able to break into the top echelon of America's strongest men. With a B.S. in zoology and biochemistry and two years of medical school at Louisiana State University (which shared Charity Hospital in New Orleans with Tulane), Riecke established an immediate rapport with Ziegler. They met in the lobby of the Yorktowne Hotel in October 1960 where Ziegler mysteriously mentioned a "discovery he had come across that would increase strength remarkably."³² Back home, Riecke pondered the gains made by March and Garcy and agreed to similar treatments. It was evident to Ziegler that Riecke would be an ideal subject.

Louis, as weight lifting coach of the N.O. Athletic Club, and your excellent education for this type endeavor—I feel sure we can work out a program and publish a joint article on our results.

It is also my impression that you with your educational background would be much more informed and understanding than the athletes I now have to rely on. Sometimes their hard set obsessive ideas are most distracting.³³

In addition to Riecke's science background and lifting experience, he was enthusiastic. "Your letter delighted me," he responded, especially since his training had been "uninspired since the Olympics."

I am convinced that a great percentage of lifting is mental. This mental anticipation alone will result in considerable improvement. This momentum carrying over into the actual physical pains produced by your diet supplement [steroids] should compound our results. I sincerely believe that we can achieve some significant results, and I can assure you that I shall carry an open mind into any "wild" ideas you may present for study.³⁴

With strong preconceptions about mental training, Riecke was hardly a *tabula rasa*, but his philosophy was shared by most advanced lifters of his day. That Ziegler's "diet supplement" could displace that verity simply did not occur to him.

In November Riecke spent several days at Olney where Ziegler outlined his training routine. Riecke had been introduced to isometrics by Dr. Francis Drury at LSU but had not been impressed by it. Now he was willing to try it seriously, persuaded by Ziegler's pitch that "the way you improve is by lifting weights, the heaviest possible. What's the heaviest weight you can lift—one you can't lift!"³⁵ In Ziegler's garage Riecke experimented with various lifting positions on an apparatus called the power rack. This device

Bob Hasse, "Profile of Louis Riecke," *Strength & Health*, 32 (January, 1964): 20-21

33. Zeigler to Reicke, October 18, 1960, Reiche Papers, 7300 Stoneleigh, Harhan Louisiana

34. Riecke and Zeigler, October 22, 1960, Zeigler Papers.

35. Interview with Louis Riecke, April 29, 1989, Harahan Louisiana,

evolved from a series of safety racks developed in the previous decade.³⁶ It consisted of two heavy steel tubes, four feet apart, extending from floor to ceiling. Bolts were inserted in holes drilled at frequent intervals to prevent the bar from falling. With isometrics, additional bolts above the bar kept it from being moved upward. On his homeward flight Riecke diagramed a wooden facsimile to build at home, a simple matter since he worked in his family's lumber business. His experiment called for a "single maximal contraction performed once a day in a group of eight exercises." Once a week he would test his gains by lifting limit poundages with a barbell. Parenthetically Riecke added: "To assure proper nutrition to the exerted muscles, the subject was given an anabolic daily."³⁷ So ill-informed was Riecke on its use that he had to inquire by telegram when Ziegler sent him a package of pills with no directions.³⁸

A different kind of experiment was undertaken by Hoffman. After administering steroids to his lifters in Rome, he took them himself for six weeks. A year later he told readers that he had conducted some "training experiments" with an emphasis on nutrition. As a result of "continued regular use" of Hoffman food supplements, he had "gained at an amazing rate and soon developed noticeable muscles. When I went to a weight lifting contest, or when I had my coat off anywhere, people would say, 'Where did you get all those muscles?'" Seven years later he admitted to taking "anabolics" and that they had "increased my strength. In five days I could curl and press more and I gained weight." Hoffman insisted that he never took them again and did not recommend their use.³⁹ The fact remains that apparent gains made from "Hoffman products" when he wrote in late 1961 were attributed to steroids in 1967. Whether this singular instance portended a pattern of behavior for his later experience with isometrics remains moot. The most that can be said for these recollections is that they provide grounds for suspicion that he *might* have realized the efficacy of steroids as early as 1960 and, with that knowledge, *could* have engaged in deceptive practices. All further evidence, however, fails to substantiate this hypothesis.

On November 21 Riecke performed lifts of 255 press, 265 snatch, and 315 clean and jerk at the New Orleans YMCA to serve as an experimental

36. As early as 1953 Joe Weider was marketing a "Multi Power Bodybuilding Exerciser." In 1956 Charles Vinci devised at York an "iron staircase," now standard in most gyms, and New York gym owner Sigmund Klein developed a "safety power builder" which served as the model for Zeigler's power rack and a similar device marketed by Hoffman in the sixties. See "Weider 'Multi Power' Bodybuilding Exerciser," *Muscle Builder*, 1 (November, 1953): 51; "Weight Lifting News," *Strength & Health*, 24 (June, 1956): 6; and Harry Paschall, "Behind the Scenes," *ibid.* (May, 1956) 26.

37. "In Flight" note, November 18, 1960, Riecke Papers. Specific exercises in Riecke's routine included two presses (just above starting position and at lock out), rise on toes, pull from just below waist, shoulder shrug, two squats (just above bottom position and at lock out), and dead lift. Riecke to Zeigler, December 15, 1960, Zeigler Papers.

38. Telegram from Riecke [December, 1960], *ibid.*

39. Bob Hoffman, "You can improve at 9 or 90," *Strength & Health*, 30 (April, 1962): 3, and "Anabolics," 35 (October, 1967): 9. See also Tom Ecker, "The Pill That Could Kill Sport," *True*, 48 (April, 1967): 81.

bench mark. A fortnight later he was already feeling a remarkable, almost euphoric, change in his physical condition. "After a workout instead of feeling exhausted, I feel positively exhilarated," he reported to Ziegler on December 15. "I can't wait until a total day to get my hands on a barbell. I feel like lifting all the time." When he was finally able to lift for a total on the 28th, his feelings were borne out. "I am positively elated!" he exclaimed as his three-lift aggregate exceeded that of the previous month by 50 pounds. Riecke could not believe that "a routine as simple and easy to perform" could yield such results. "I keep searching for some other explanation for my improvement," he stated. Unaware of the effects of steroids, he did note a suspicious six-pound bodyweight gain. "By the way," he asked, "what is in that anabolic you have me taking? You said that you would send me some literature on it."⁴⁰ Ziegler did not respond to this query but noted that reports of Riecke's progress "make this tired old heart of mine most happy."⁴¹ At the Lone Star Invitational in Dallas on January 14, 1961, Riecke surpassed his best official total by 35 pounds with lifts of 285, 290, and 350—the resulting 925 being the total that won the bronze medal in Rome. It was "a tremendous boost" for Riecke. "If I was enthused before, I am elated now," he told Ziegler. "I am determined to make the U.S. team to Vienna this fall, and for the first time I am confident that I shall succeed. . . . God damn, I'm happy!"⁴² That he was suddenly thrust into the front rank of world competition after little more than a month on Ziegler's isometric program was almost beyond comprehension.

Soon, however, Ziegler hinted that he was "working on a new improvement to our idea—which will amaze you more." In late January he attended a seminar in Philadelphia on hypnosis. "Have learned very much that will help *us* more than my past beliefs." But he was concerned that Riecke should not endanger the progress he was making. He admonished him to make no change in his isometric routine, let him know when he needed more tablets, and to maintain utmost secrecy. What prompted Ziegler to emphasize secrecy was his concern at being "hounded to death" before he could finish his research. "Bare [sic] with me Louis and I *promise you* what we have done is absolutely nothing to what we are going to do—This I will swear to—So *keep MUM!*"⁴³ Especially after the Dallas meet, news of Riecke's gains had aroused "more than a little curiosity" among his workout partners and friends." Ziegler too was being badgered, particularly from York. On February 1 he informed Riecke that "Grimek & Hoffman have called me several times . . . asking if I have been working with you as *your* results in Dallas have been very well noticed all over the U.S.A. So far, I have made no admissions as per our agreement—but 'Ole Strong John' Grimek is getting

40. Riecke to Ziegler, December 15 and 29, 1960, Zeigler Papers.

41. Ziegler to Riecke, January 3, 1961, Riecke Papers.

42. Riecke to Zeigler, January 16, 1961, Zeigler Press.

43. Zeigler to Riecke, January 25, 1961, Riecke Papers.

44. Riecke to Ziegler, January 16, Zeigler Papers.

wise with his ‘come on, Doc, you’re up to something.’”⁴⁵ On February 5 Riecke received a letter from Bob Hasse of *Strength & Health* congratulating him for his Dallas total. “I shall acknowledge his letter, of course, but shall neglect to make any mention of a question he asked. (‘Are you taking Doc Ziegler’s mysterious pink pills?’)” Curiosity-hounds were led still further off the scent by Riecke’s statement in the May issue that his “recent sensational improvement” was due to “intensified *mental concentration*” —misleading perhaps, but not inaccurate. In private, however, Riecke was far from certain about any connection between his altered physical state and the pills. He told Ziegler that he was “still amazed at this constant feeling of euphoria and energy I have. I don’t know whether it is occasioned by the workout, the pills, or delight over my progress. Any comment on this?”⁴⁶

There was no comment, the reason being that doctor and subject, convinced that mental conditioning was the key to increasing strength, were distracted by hypnosis. Riecke reminded Ziegler that as a mental lifter he was interested in hypnotism, had read some books on the subject, and had even tried it on himself. He believed it could best be employed in overcoming the “subconscious fear,” acquired from an old wrist injury, of lifting maximum poundages in the clean and jerk. “I am now convinced that I can lift really heavy weights—can we convince me in my subconscious enough so that when I stand before a world record that I will pull it up and really go for it?” Ziegler encouraged this prospect, stating on February 17 that he had been “using hypnosis in my practice here daily with excellent response.” To program Riecke’s subconscious, he recommended another visit to Olney. He also wanted Riecke to read a book on *Christian Yoga* by J. M. Dechanet which went into “this maximum contraction bit . . . very well,” the implication being that isometrics originated in the Orient as Hatha Yoga. Furthermore, Ziegler explained, “your feeling of Euphoria and energy follows the Yoga Idea—read up on it—it’s most interesting.”⁴⁷ Their focus was on the mental discipline associated with isometrics, not steroids, as the active agent in Riecke’s progress.

By this time Ziegler was hard put to explain the success of his protege to Hoffman, John Terpak, his general manager, and Grimek. “Calls several times a day, have dropped by several times, want me to visit them in York etc—They keep skirting around the issue but are sure we are up to something.”⁴⁸ He was no less intent on sticking to their original plans. But to isometrics and steroids was added hypnotism. What made it so attractive was

45. Zeigler to Riecke, February 1, 1961, Reicke Papers.

46. “The Iron Grapevine,” *Strength & Health*, 29 (May 1961): 27, and Riecke to Zeigler, February 5, 1961, Zeigler Papers.

47. *Ibid.*, and Zeigler to Riecke, February 17, 1961, Reicke Papers. Also see the Hatha Yoga section of J.M. Dechanet, *Christian Yoga* (New York: Harper, 1960): 31–43, by which Zeigler makes a rather strained comparison.

48. Zeigler to Reicke, February 17, 1961, Reicke Papers.

Ziegler's conviction that there "is a definite change in body physiology during hypnotic trance"; that the subconscious can control bodily functions. This verity was revealed at the Philadelphia seminar.

While I was in an experimental deep trance . . . they levitated my right arm to a horizontal position in front of me. When I was brought out of the trance I could not believe my right arm could be held in that position for 1 hr. and 35 min. . . I had no pain, no stiffness, no soreness, no perspiration, and no shortness of breath from this effort. Now Louis I know God damn well I cannot consciously hold my right arm in front of me for 1 hr. and 35 min. if I was to receive a million tax free dollars for it, and if I tried for as long as I could, fighting it, know that when I finally gave up with sheer exhaustion and pain my anterior deltoids would be so sore and would ache for days. . . I then questioned the master about this. He said this is a field wide open for experimental work because all we definitely know now is that there is an altered stage of physiology in the trance state.⁴⁹

If this mental power could be harnessed, Ziegler reasoned, then its potential in sports seemed limitless.

To explore this latest breakthrough Riecke rushed up to Olney in mid-March. For several days he was subjected to a program of post-hypnotic suggestion which was reinforced by a set of tapes he brought home. They were even designed to make his muscles grow stronger in his sleep! Ziegler equated hypnotic suggestions with "medical facts" and estimated that his patient would go to the upcoming world championships in Vienna, smash world records, and win with lifts of 345 (press), 340 (snatch), and 400 (clean and jerk), thereby exceeding the world total record by 76.5 pounds!⁵⁰ However outlandish these figures might have sounded, Riecke, an optimist, was prepared to "shoot for 1100." From New Orleans, he reported that the suggestions "seem to be working well" and that he had received a "great mental lift" from his visit. Riecke's immediate goal was to defeat his American adversary, Tommy Kono, at the national championships in June. The hypnosis tapes he brought back reminded him: "when Dr says 'Kono' I will get desire to press. & every time I hear 'Kono' desire will be more, & when I hear 'you can beat Kono' I will grab bar & clean & press wt in best form." Further to focus concentration in his isometric training, he placed a picture of his rival on his gym wall. Kono's name "hereafter will be referred to as 'Mud.'" said Riecke. "Have not yet figured out how I shall wear my 'Z' when I beat hell out of the Russians & 'Mud,' but I am working on it. Tonight while I sleep I shall grow *stronger*."⁵¹

49. Ziegler to Riecke. March 8, 1961, *ibid*.

50. Hypnosis notes by Riecke, March 18, 1961, *ibid*.

51. Riecke to Ziegler, February 26 and March 22, 1961; and undated note on hypnosis program by Ziegler, Ziegler Papers.

Concurrent with his emphasis on mental training was an increased commitment to daily isometric workouts, even to the extent of adding several new positions on the rack. An obvious drawback to training where there was “no actual movement” and no knowledge of how much force was being exerted, was a tendency to slacken. “I have discovered at times I was not exerting all possible pressure against the bar in a given movement,” he admitted to Ziegler, “so must guard against this by concentrating before and during my ‘12 sec’ pressure.” Later he proposed that they develop a hydraulic gauge (ergometer) to measure exertion.⁵² Riecke also continued to take the pills Ziegler sent him. In late February his dosage was increased for three weeks to three tablets a day and combined with a high-protein diet. The extent to which any *individual* agent directly influenced Riecke’s lifting was impossible to gauge, but the combined impact of the isometrics, hypnosis, steroids, and the diet was immense. Riecke’s “weekly progress chart” showed steady improvement for March, culminating in his highest official total ever at the Southern USA meet in Houston on April 17. He pressed 303, snatched 303, and clean and jerked 368.⁵³ It was “one God damn lb less than won the Olympics in Rome,” he exclaimed. “Why couldn’t I have started on this program one year sooner?” That he attached no special significance to the pills is evident from their not being mentioned in a summary Riecke compiled on his training entitled “An Experiment Attempting to Increase Strength of Skeletal Muscle.”⁵⁴

It was inevitable that Riecke would eventually reach a plateau. Along with his progress in March, he started to be plagued by petty injuries, including a chronic ache of his scapulae rhomboid muscles and a pull in his elbow ligaments. At the end of May he admitted “our first setback.” As a guest lifter at the Junior Nationals in nearby Lafayette on the 20th “nothing went quite right.” In descending to the squat position with a 370-pound clean and jerk, he pulled the adductor muscles in his left thigh. Though this injury responded to treatment, it marked a break in his training. Riecke attributed his misfortune to his new positions on the rack. Therefore he omitted them. It is significant that Riecke focused exclusively on his isometric routine and made no mention of the pills, the dosage for which had been raised at about the same time.⁵⁵ Furthermore he was oblivious to some of the side effects of steroids—his initial gain of muscular bodyweight, the continuous feeling of euphoria, and most recently a proneness to injury which researchers now attribute to a lessening of ligament and tendon flexibility.⁵⁶

52. Reicke to Zeigler, February 25 and March 5, 1961, *ibid.*

53. Zeigler to Reicke, February 23, 1961, and Weekly Progress Chart and “An Experiment Attempting to Increase Strength of Skeletal Muscles,” Riecke Papers.

54. Reicke to Zeigler, April 16, 1961, Zeigler Papers.

55. Riecke to Zeigler, May 13 and 26, 1961, *ibid.*

56. See “Watch Your Tendons” in Goldman, *Death in the Locker Room*, pp. 131-33.

In the meantime Bill March had resumed regular trips to Olney where he received the full complement of ergogenic aids that were being administered to Riecke. The only difference was that he employed a partial movement with weights (isotonic) routine. Since April 1960 his total had increased from 800 to 970, though he had advanced into the mid-heavyweight class. To cut down on his trips, Hoffman installed a power rack in his basement for March who came out each evening to train. He was so happy with March's 950 total at the national YMCA meet in Toledo, he told Tommy Kono on April 26 (1961), that "I could stay awake driving all night for I knew what this would do to keep you, Bradford and Schemanski in the game for a long time, without too much sacrifice, or too much abuse of your muscles." Hoffman had seven more racks made for his champions across the country. "You are already the world's best presser," he told Kono, "and if this would help you, as it should, your records would be fantastic." Fearing "the Russians are using a similar system," an air of secrecy surrounded Hoffman's revelations to America's best lifter, but the secret was isometrics, not steroids.

There is the story about the acres of diamonds, looking all over the world for them when they were right on the farm. For nearly thirty years we have been writing and talking about making this machine, we have had the steps at the gym, and held weights overhead in a variety of ways, but it took us all this time to build this machine.⁵⁷

Still, Riecke's even greater gains remained a mystery. Therefore Hoffman flew Riecke to York on Memorial Day weekend for consultations with himself and Ziegler. As they sat in his living room, Riecke recalls, Hoffman asked what was the reason for his improvements. Ziegler looked at his protégé and said, "tell him." Riecke then explained how he had been using isometrics over the previous six months and the changes it had wrought. "We can't have this," was Hoffman's immediate response. "We have to sell weights."⁵⁸ Hoffman was at last enlightened, and Riecke returned to New Orleans, assuring Ziegler that "we are back on the upgrade again."⁵⁹

Whatever hopes Ziegler may have had for Riecke culminated in the long-awaited showdown with Kono at the Senior Nationals in Los Angeles on June 24. After the press and snatch, Riecke and his archrival were tied with subtotals of 600. In the clean and jerk Riecke made 365, while Kono made 380 and chose to save his last lift for whatever it might take to win. Riecke gambled that 380 would be enough to claim victory on lighter bodyweight. Despite all the components he had drawn from Ziegler's strength arsenal, he failed to negotiate this massive weight. But Hoffman, in reporting the competition, was ecstatic.

57. Hoffman to Kono, April 26, 1961, Hoffman Papers in possession of the author.

58. Hoffman to Dean Markham, May 29, 1961, *ibid.*, and Interview with Riecke.

59. Riecke to Zeigler, June 1, 1961, Zeigler Papers.

Tommy was the champion, but Riecke was the sensation of the meet, for he lifted 105 pounds more than he did one year ago. Broad shouldered, heavily muscled in the trapezius, his back and shoulders are developed to a point that make them pretty close to being the best I have ever seen. This, with his slender waist and fine pair of legs, make him indeed a picture of everything a weightlifter ought to be.⁶⁰

Seeing was believing, and on the basis of such compelling evidence of its effectiveness, Hoffman decided to go public with isometrics. By the end of the summer he had assembled a line of static contraction products for sale in *Strength & Health*.⁶¹ Soon *Sports Illustrated*, with testimony from Riecke, March, and Hoffman, was broadcasting the “no-sweat, no-pain” system of muscle building to an even broader audience.⁶²

In July 1961, Riecke, March, and two other lifters embarked on a five-contest international tour. Riecke started poorly in Moscow and got successively worse in matches at Leningrad, Kiev, Tbilisi, and finally London where he injured his right thigh. “What a performance!” he reported to Ziegler. “In 15 years of lifting I have *never* failed to make a total, and here in 5 meets I only totalled once.” Riecke was consoled only by March’s doing even worse.

The only explanation that fits everything is that some S.O.B. hypnotized me and wouldn’t let me lift. Do you think this is possible? I’m not kidding. I think that if you had done this I would remember it, but I know you didn’t like the idea of this trip and I seriously believe that either consciously or unconsciously you had a profound effect on my lifting. John, tell me honestly, did you suggest anything to me under hypnosis about not doing well, or do you think it was just your conscious suggestions to me that you didn’t want me to lift well?⁶³

Was it possible, as Riecke suspected, that Ziegler had hexed both his subjects? Hardly, but there is an element of truth in this scenario. What happened, as Riecke now attests, is that both lifters went off their medication during the European trip. This explanation is corroborated by evidence from his papers. On August 3, just after returning, he asked Ziegler to “please send my pills” followed by an appeal on the 20th to “take a minute to send me the pills. I think they help.” Finally he wrote on the 26th that “I am back on your anabolic.”⁶⁴ The most telling indicator that Riecke was off steroids when abroad was his mood change. “I was really very calm and self assured on the

60. Bob Hoffman, “‘61 Senior Nationals,” *Strength & Health*, 29 (October, 1961): 53.

61. Hoffman’s earliest inclination had been to call his new technique the “Hoffman-Ziegler Super Power System” and to include and to include Ziegler’s name on the equipment, but eventually products carried by Hoffman’s name. Hoffman to Markham, May 29, 1961, Hoffman Papers.

62. See Gilbert Rogin, “Get Strong Without Moving,” *Sport’s Illustrated*, 15 (October 30, 1961): 19-21,

63. Riecke to Ziegler, August 3, 1961, Ziegler Papers.

64. Ibid, and Reicke to Zeigler, August 20 and 26, 1961, *ibid*.

whole trip. In fact, I had a hard time getting worked up enough to put out on the lifts."⁶⁵ The euphoria induced by steroid use was gone. It was little wonder that his lifting was going badly—he, and probably March too, were suffering from withdrawal.

Remarkably, Riecke and Ziegler showed as little awareness of the effects of steroid deprivation as they had initially of steroid intake. Again Ziegler was off on a new tack to put Riecke back on course for the Vienna championships. First, he sent him a tape to break any residual post-hypnotic suggestions from his Russian trip. Then he prescribed a new medication that would restore potassium ions to skeletal muscle cells and thereby relieve fatigue. "As you know," he explained to Riecke,

no skeletal muscle cell is fully recovered from any exertion until all potassium ions lost during cell work are returned back into the cell and sodium ions accumulated within the cell during the exercises are excreted.

Louis, the results have been amazing and again more than I had expected. Dr. Higgins, a professor at Georgetown Medical School . . . is so enthused that he has been visiting me almost daily regarding my work on this. We have now proven that a muscle can totally recover from severe stress or most heavy exercise within two hours, instead of the usual 24 to 36.

To accommodate this new drug, Ziegler reduced the exercises in his subject's routine from eight to five and had him alternate between light and heavy days.⁶⁶ Riecke also resumed his steroid doses. With only a month till the world championships, he indicated that he was responding to the new program and assumed that the anti-fatigue tablets were working. "I feel as though I am on the way back up at last, but I don't understand how I could have sunk so low for so long."⁶⁷ One suspects that Ziegler's enthusiastic endorsement alone was as powerful as any of his prescribed treatments on his subject's outlook—a modified version of the placebo effect.

Even with Ziegler as team physician, Riecke's performance in Vienna fell far short of expectations. His 925 total secured only fifth place, 22 pounds behind Kono's third and 67 pounds behind the winner, Russia's Rudolf Pluykfelder. He had only just resumed taking steroids. March did not lift but looked so muscular that he won second place in the accompanying Mr. Universe contest. After resting for several weeks, Riecke was eager to continue isometric training. He also began to show an increased reliance on the pink pills. "If you consider a prolonged dosage innocuous," he queried on October 13, "please send more, as I feel that they are a real help."⁶⁸ Ziegler seemed not to share his enthusiasm for them, replying only that he would

65. Telephone interview with Riecke. January 16, 1992.

66. Ziegler to Riecke. August 22, 1961. Riecke Papers.

67. Riecke to Ziegler. August 26, 1961. Ziegler Papers.

68. Ride to Ziegler. October 13, 1961. *ibid.*

send more as soon as he could get them—"a rest from them won't hurt any at this time."⁶⁹ On October 14, after "doing nothing but resting" since the world meet, Riecke entered the Louisiana State Championships in New Orleans and totaled 965. It was close to his lifetime best and included a national record snatch of 305 pounds. Two weeks later, fully fortified by steroids, he pressed 300 pounds in a workout. "Thank Gawd I finally have my confidence back." Riecke wrote his mentor. What seemed to be "the most important thing" contributing to his recovery, beyond steroids or any of Ziegler's other devices, was a new routine of three repetitions on the isometric rack of five seconds each. "After the first press my arms felt like they were 2 inches bigger. . . . Kono and Plykfelder might as well get out of my class right now."⁷⁰ Ziegler, of course, was "tickled to death," and the York gang was more curious than ever. News of the New Orleans meet had "a profound effect on Hob Boffman," he playfully observed. "Ole Hob became quite excited with his usual 'Doc, what are you and Riecke up to now. Remember we are partners together in this' etc. etc."⁷¹ Hoffman was desperately searching for some reinforcement for the commercial gamble he had taken just months earlier.

Support of the most useful kind was soon forthcoming, but from an unexpected quarter. Peary Rader, editor of rival *Iron Man* magazine, was respected throughout the iron game for his honesty and independence. Activated less by commercial motives than Hoffman and with no apparatus of his own for sale, he concluded that isometrics was "a system that seems to work miracles." Rader provided ample testimony of its effectiveness. He was in his early fifties and had made no lifting progress in two decades.

Then I started working on the power rack with the Isometric system and almost overnight I began to feel full of pep as I'd never felt before. The first time I tried myself out with the weights I found that my strength had increased amazingly and I had no difficulty squatting with 385 and my press was easy and I bench pressed more than at any time in my life. About two weeks later I was squatting with over 400 and still going up . . . I had never expected to get as strong at 52 as I had been at 32 when training hard and competing. I now fully expect to be stronger in the power lifts than at any time in my life.

Rader also pointed to the exceptional progress made by Gary Cleveland of St. Louis and Frank Spellman of Los Angeles through isometrics, but Riecke was "the most outstanding example of what this system can do for a lifter." Rader, no less than Riecke and Hoffman, was committed to the belief that "strength is about 90 percent mental" and seemed unwilling to countenance any other factor besides the intense concentration required in isometrics for Riecke's

69. Ziegler to Riecke. October 24. 1961. Riecke Papers.

70. Riecke to Ziegler, October 30. 1961. Ziegler Papers.

71. Ziegler to Riecke. October 24. 1961. Riecke Papers.

spectacular gains.⁷² No one seemed able to comprehend that whatever transformed Riecke could be anything less than an act of human will or that they were on the verge of a “new frontier” in sport.

Within the next month, however, Riecke again plunged into the abyss. After his spectacular performance in October, he snatched 311 pounds for an unofficial world record at a meet in Shreveport on November 20, weighing slightly over the class limit. This encouraged him to try for a 1,000 (world record) total in Dallas on December 2. Instead, he made just one snatch and hoisted only 935 pounds. On the 10th he advised Ziegler that he had been “out of pills for quite some time now.”⁷³ Ziegler mailed him more tablets and advised him to go on a “protein kick for a month or so . . . for the best anabolic effect.”⁷⁴ But he was hardly able to tend to his subject’s needs because of his own health problems. Early in 1962 Ziegler had a renal operation, and both he and Riecke were in a state of limbo for several months. On February 14 Riecke remarked that his pink pills had run out six weeks earlier. “I can’t tell whether I need those damn things or not. Do you think it advisable to continue with them?”⁷⁵

As usual, Ziegler was noncommittal. But he did acknowledge that during his illness Riecke’s lifting had come to a standstill, and March had declined to where he was two years earlier. Far from attributing this regression to absence of steroids, he concluded that what was missing was the combination of factors that had brought progress initially—“Discipline, Dependence, encouragement, belief + confidence + interest—or a true Rapport (Dr + Patient relation).” All converged on his personality. “Perhaps our personal relationship with my belief confidence etc did more than we realized.” Beyond that, he discerned that strength was induced by different kinds of irregular stimuli, thereby forcing constant readaptation by the muscles. It was “a *basic* law,” he explained, that “the body and all its component parts as systems react only to change. There is no reaction when stimuli become static or the system (muscle) has adjusted to them.”⁷⁶ Riecke agreed that growth was stimulated by constant change and that their rapport had helped inspire gains. Its absence may even have accounted for his dismal showing in Russia and lack of progress during Ziegler’s illness. Failing any other explanation, Riecke returned to “Those damned pink pills. I hate to attribute any portion of our success to medicinal factors, but some portions of my improvement coincided with my ingestion of them. Do you have any corollary evidence of this with your other subjects?”⁷⁷ Riecke was getting wiser, but he seemed

72. Peary Rader, “Yes, You Can Make Big Gains With This System,” *Iron Man*, 21 (October-November, 1961): 22.

73. Riecke to Zeigler, December 10, 1961, Zeigler Papers.

74. Zeigler to Riecke, December 13, 1961, Reicke Papers.

75. Riecke to Zeigler, February 14, 1962, Zeigler Papers.

76. Zeigler to Reicke, March 5, 1962, Reicke Papers.

77. Riecke to Zeigler, March 15, 1962, Zeigler Papers.

unwilling to believe what was becoming obvious. It was not so much for medical or ethical reasons that he performed this ritual of denial but because what he was learning clashed fundamentally with assumptions he had held throughout his lifting career.

In the early spring of 1962 Ziegler and Riecke achieved at least a partial understanding of what was causing the latter's periodic gains and losses. Nothing, in Ziegler's estimation, had been so effective as Riecke's first work-out program in 1960. To repeat that experience, he wanted him to return to his original routine on the isometric rack. He also asked Riecke to fetch their earliest post-hypnotic tapes to reestablish "the old mental stimulation technique. If you have our old one send it so I can go over our old established signals + then we should *start off* where we finished." Most importantly, drugs, perhaps as a result of Riecke's queries, loomed larger in their plans. At the top of Ziegler's latest agenda was a supply of "new improved vit. tabs" he wanted Riecke to consume with three "total protein" meals per day. "For God's sake please don't lose these tabs—they are the first produced for clinical work." That this "new improved Heterocyclic Anabolic" was no mere vitamin was evident in the formula Ziegler revealed to his patient.⁷⁸ Renewed progress ensued, and Riecke's enthusiasm returned. "Either you or those pills (or both) have had a very stimulating effect on my training," he wrote on April 22. "I also feel that my taped workouts have contributed something." His records show a direct correlation between intake of Ziegler's new pills, received on March 30, and his latest round of improvements. In training his press increased from 275 to 295 in early April. "This is most gratifying." Unfortunately, probably also from steroids, he injured the vastus medialis muscle of his left leg. That Riecke was developing a dependence on steroids is suggested by his mentioning the pills four times in his letter, twice being reminders for Ziegler to send more.⁷⁹

Concurrently both parties expressed concern over the intrusion of commercial interests. "This isometric thing is really going over with the public." Riecke observed. "I have spoken at and set up systems at Tulane U. at Loyola, and several high schools in and around N.O. as well as individuals and other groups." Sarcasm was evident in his "hope" that "someone is making some money from all this work, and I wish it were I."⁸⁰ Ziegler noted that he was still beset by snoopers from York. "Bob Hasse has been by here with Terpak with their usual curiosity—as to what I am up to. Therefore I would appreciate it if you would continue to be evasive with them—so we can work together without interference."⁸¹ Though bothered by York's meddling, both were more resentful of attempts by Hoffman's rival, Joe Weider, to belittle their isometric advances in *Muscle Builder*. Referring to Weider's

78. Ziegler to Riecke, March 29, 1962 (2 letters), Riecke Papers.

79. Riecke to Zeigler, April 22, 1962, Zeigler Papers.

80. Riecke to Zeigler, February 14, 1962, *ibid*.

81. Zeigler to Riecke, March 29, 1962, Reicke Papers.

claims of having already developed the technique, Riecke cautioned Ziegler not to “laugh so hard that you hurt your operation.”⁸² Ziegler was even more incensed. “Don’t let such unbelievable stupidity of Wieder [sic] affect you at all. It fits in with his own *selfish, dishonest totally self centered personality*.”⁸³ Obviously Ziegler and his client wanted it both ways—that their discoveries should have the greatest possible impact on strength research, yet be subjected to the least possible commercialization.

As the 1962 Senior Nationals approached, Ziegler continued sending Riecke pills, supervised the healing of his recent injury, and assured him that he should “now begin to make great gains.”⁸⁴ Riecke also was confident. Hearing that his old nemesis Kono was “gunning” for him, he was determined to make 310, 315, and 385 “which should dispose of him nicely.” At their showdown in June, however, Riecke could manage no more than 290 in both the press and snatch and missed all of his clean and jerks. In July he reinjured his leg “in the same old way.”⁸⁵ Despite these setbacks, Riecke progressed in another respect. He learned about steroids and their properties in an encounter with Bill March. Like Riecke, March trusted Ziegler and had no reservations about what he was putting into his body. “If he had told me to eat grass, I would have done so to get strong,” he recalls.⁸⁶ Only then did Riecke become acquainted with the term Dianabol or any of the cant expressions that became inherent to the drug culture of sports.

With only two months remaining before the world championships in Budapest and increasingly aware of the efficacy of steroids, Ziegler accelerated Riecke’s intake. He had been working with Winthrop Pharmaceuticals on an improved anabolic of which he prescribed four tablets per day.⁸⁷ Riecke, also more knowledgeable, had “determined empirically that it takes about four weeks for the pills to begin working on me.”⁸⁸ But at a special tryout in York on September 8, he could register only a 915 total and was easily excluded from a place on the team by young Gary Cleveland’s 945. March, on the other hand, who practiced the same routine as Riecke, did an impressive 990 in his class, including a 385 clean and jerk, both career records. Such disparities aroused Riecke’s curiosity. In the fall of 1962 he reflected on his two-year strength odyssey in an account called “The Saga of Ziegler and Riecke—Pull, Pills, or Psyche?” Uppermost in Riecke’s mind was “the relative merits of the three factors to which I attribute my increase in strength of last year. Viz., the dianabol, the isometric exercises, and the change in my mental attitude occasioned by your overpowering personality.”

82. Riecke to Ziegler. March 14, 1961, Ziegler Papers. See Joe Weider. “Do Isometric Contractions Really Work?” *Muscle Builder*, 12 (April, 1962): 29, 56 and 58.

83. Ziegler to Riecke. March 29, 1962. Riecke Papers.

84. Ziegler to Riecke. April 25, 1962. Ibid.

85. Riecke to Ziegler. May 2 and August 4, 1967. Ziegler Papers.

86. Interview with Riecke and March.

87. Ziegler to Riecke. July 19, 1962. Riecke Papers.

88. Riecke to Ziegler. July 16, 1962. Ziegler Papers.

Though never a complete convert, steroids had been looming larger in his estimation for six months. In the two weeks he had been back on Dianabol and regular training he had regained the “continual state of euphoria that I have not experienced since the early months of our initial experiment.” After outlining his intentions to start a new isometric/isotonic program, Riecke queried how, since the world championships, March was “going great and getting stronger by the week. New Magic from Dr. Frankenstein’s laboratory?”⁸⁹

Conceivably Riecke thought Ziegler had developed a new and even more potent chemical or mental stimulus. Not so—it was electricity that now set the doctor’s mind running down a completely new experimental track.

As I told you about 8 mo. ago I was about to make another break through in research. Well I did it . . . March has continually improved every week—last press 360 lbs. + he keeps going up without any work outs at all now. The new idea is limitless + I expect March to press 450 lbs in 4 more *mo.*

You ought to get your A_ up here an see everything.

He had developed a machine called the isotron to duplicate (via three watts of electricity) nerve impulses from the brain to the skeletal muscles. Among those whom Ziegler claimed were interested in his latest discovery were generals, admirals, and the Secretary of the Navy: all had “been out *here* to see my work in my office.” There were also professors from the University of Maryland Medical School, according to Ziegler, with offers of contracts and grants—“so much, so fast I can’t believe it.” Even Johnny Unitas, quarterback of the Baltimore Colts, was coming out that night to see him about a contract.⁹⁰ How much of this was bluff was difficult for Riecke to discern, but March’s gains were real, and he could not afford to be ignorant of the latest scientific advance.⁹¹ Knowledge barriers were collapsing on many fronts as strength research, so it seemed, entered an age of enlightenment. In December 1962, *Iron Man* featured an article on steroids that even carried the names of specific drugs.⁹²

Riecke’s response to the isotron, when he visited Olney in January 1963, was almost entirely negative. He only tried it once, but “the more I thought about it the less I liked it,” he recalls. Likewise he had little faith in biorhythms, the last of Ziegler’s nostrums. It was a means of estimating, from the day of one’s birth, exactly how physical, emotional, and intellectual cycles—23, 28, and 33 days respectively—influence athletic performance.

89. Riecke to Ziegler, December 12, 1962, *ibid.*

90. Ziegler to Riecke, December 20, 1962, Riecke Papers. See also Earl Guskey, “The Muscle Machine—It’s the Lazy Way,” *Los Angeles Times* (August 26, 1971), I, 30.

91. March did benefit from isotron, but the public was so disbelieving that he could make such significant gains with almost no training that he had to make up workout routines. Interview with March.

92. Peary Radar, “Don’t Do It, Fellows!” *Iron Man*, 22 (December, 1962): 24-25, 51 and 53.

Riecke “never used biorhythms and didn’t want to know about it.”⁹³ Obviously he was losing his rapport with Ziegler. In the spring their correspondence ended, and Riecke pursued a more independent course.

For the next year and a half he employed a routine of isometrics supplemented by steroids and psychokinesis. In lieu of Ziegler’s shipments of pills, Riecke found a local doctor who was willing to dispense them. At the 1963 Senior Nationals he tied Kono with 960 (losing on bodyweight) and qualified for the world championships in Stockholm. The highpoint in his lifting career occurred at the YMCA Championships in April 1964 when he hoisted a world record snatch of 325 pounds. Riecke and his isometric training received much attention because it was America’s only world mark at the time. He made the Olympic team in 1964, but in Tokyo he reinjured his thigh and retired from competition. Though Riecke never became world, Olympic, or even national champion, he was able to reach the highest plateau in weightlifting because of Ziegler’s innovations. Likewise March, under Ziegler’s supervision, had scaled the heights. From 1961 to 1965 he set a world record press of 355, ran off a string of five national championships, and garnered a third and two fourths in international competition.

March and Riecke differ in assessing the relative worth of the various scientific notions conjured up by Ziegler. March regards the power rack as “the most effective,” while the pill also had much to do with his success. Riecke believes steroids had the greatest impact, followed by isometrics, the mental stimulation provided by Ziegler, and just “getting into the mainstream of American lifting.” Both lifters also feel they benefited from hypnotism.⁹⁴ But such estimates can be no more than conjecture when the haphazard nature of Ziegler’s research is considered. Former champion Jim George, now an Akron dentist, holds a dim view of his scientific approach. “Ziegler was a God-damn nut. He certainly was no researcher and worked in totally uncontrolled settings.”⁹⁵ He administered such a conglomeration of ergogenic aids in such an irregular manner that it was impossible to tell where the impact of one stopped and another began. Those who attribute conspiratorial designs to Ziegler, and by extension to Hoffman, must reckon with the fact that neither party was sure of what was being discovered.

It was only later, as Riecke and March made way for a new generation of strength athletes, that Ziegler sought to capitalize on his discoveries. In 1963 he retired from medical practice and became head of Hoffman’s non-profit foundation. Still, Ziegler was motivated not so much by the prospect of making money or developing the world’s best weightlifters, but the desire to become a renowned medical researcher. While admitting that much of his work might benefit the “population at large,” he was obsessed with the

93. Telephone interview with Riecke. Also see Riecke to Zeigler, February 14, 1963, Zeigler Papers.

94. Interviews with March and Riecke.

95. Telephone interview with Jim George, January 23, 1992.

notion of creating a superman. "It is *very, very* possible," he told Hoffman in 1965, "that special training techniques and other *devices* along with greater physiological knowledge may enable man to achieve physical performances *now* considered *SUPERHUMAN!*"⁹⁶ Such was the object of his treatments of Riecke and March in the early sixties. But now his goal seemed most attainable through the isotron which figures prominently in all subsequent transactions. Lesser mention is made of further research on isometrics, and nothing on drugs.

Yet by this time there had emerged a general knowledge and accessibility of steroids. Repeatedly York publications, acting on Ziegler's advice, condemned them.⁹⁷ In private, however, an increasing proportion of York lifters, and other athletes, were using and abusing steroids. By the end of the decade many elite lifters were also seeking stimulation from recreational drugs. Dick Smith recalls that Ziegler was completely outraged. "What is it with these simple-minded shits?" he queried. "I'm the doctor!"⁹⁸ Ziegler later noted that the York men "went crazy about steroids. They figured if one pill was good, three or four would be better, and they were eating them like candy. I began seeing prostate trouble and a couple cases of atrophied testes."⁹⁹ Unable to interest Hoffman in promoting the isotron and fed up with drug-abusing lifters, Ziegler severed his ties with York. In the January 1967 issue of *Strength & Health* he delivered a parting shot, a bold print "Warning" from the AMA Committee on Medical Aspects of Sports: "Androgenic anabolic steroids . . . are categorically condemned for the athlete."¹⁰⁰ Ziegler's position on the monster he had created could not have been clearer.

In any final determination of guilt for deception, much depends on the amount of information Hoffman received from Ziegler about steroids and the extent to which he acted on it in the early 1960s while formulating his marketing plans for functional isometric contraction. Some insight can be gleaned from testimony in a 1977 court case where the subject of isometrics was addressed. Ziegler freely admitted, under oath, that Hoffman had borrowed his conception of it, including the power rack, but he did not remember ever discussing steroids with him.

Q. Are you familiar with his position on anabolic steroids?

A. No, I'm not, truthfully, because I was treating patients who volunteered and they would come down here. Most of the time, I had private patients. I never mentioned it. That was private, what I was doing.

96. Ziegler to Hoffman and Terpak, December 2, 1965, Zeigler Papers.

97. See "Ramblin' Thru Muscledom," *Muscular Development*, 1 (December, 1964): 60.

98. Interview with Dick Smith, May 1, 1987, Livonia, Michigan.

99. Bil Gilbert, "Problems In A Turned-On World," *Sports Illustrated*, 30 (June 23, 1969): 70.

100. "Warning" by John B. Zeigler, M.D., *Strength & Health*, 35 (January, 1967): 23.

Q. So you never discussed the general subject of anabolic steroids with Bob Hoffman, would that be correct to say?

A. Not that I can recall. I don't know if he ever asked me about it or not.

Nor did Hoffman, under similar interrogation, reveal any critical information link. What Ziegler vividly recalled about his early experiments coincides with information extant in his correspondence with Riecke in 1960–62. At first isometrics and anabolics were “unknowns,” he recollected. Only later was he able to conclude that both, along with the force of his own personality, were strong determinants of performance.¹⁰¹ There is no concrete evidence here or elsewhere currently to verify that Hoffman, in league with Ziegler, was attempting to use isometrics as a cover for steroids and bilk the public.

Hoffman displayed the faith of a true believer in the isometric system he was marketing and dismissed any views that questioned its effectiveness. Furthermore, the great weight of educated opinion in the early sixties provided every reason for him to believe that static contraction, not steroids, was responsible for the great gains by Riecke and March.¹⁰² This scenario is made more explicable by a realization of the many illusions that accompanied these early explorations. Hoffman believed he could make a fortune from isometrics, Riecke envisioned becoming a world and Olympic champion, and Ziegler, in his quest for a superman, fancied himself a scientist who “hit a breakthrough on a new medical frontier.”¹⁰³ The early correspondence between Ziegler and Riecke shows that preconceived notions of mental stimulation through isometrics, hypnosis, and personality governed their approach initially and that Ziegler's infectious enthusiasm and erratic genius, shunning any controlled laboratory procedure, led them down numerous paths of discovery. It was only in the latter stages of their experiment, by the most haphazard course of trial and error, that steroids were reluctantly identified as an influential agent in the enhancement of strength.

101. “Bob Hoffman vs. *The Washington Post*, et al.” in the United States District Court for the District of Columbia, Civil Action No. 76-197, May 3, 1977. Terpak Papers in the author's possession.

102. Among the many endorsements from colleges and schools, the most striking came from Norm Olson, a football and track coach at Florida State University, who reported “splendid results.” In the 1961-62 season his team posted a 10-0 record, including nine games without being scored on. His track team, also on isometrics, was state runner-up. Olson to Hoffman, July 16, 1962, Hoffman Papers.

103. See William Bankheart to Ziegler, June 1, 1961. Ziegler Papers.