

The Great and the Near Great in Signaling

A Flashlight Portrait of "Alexander-the-Great," Who Fought and Won a Famous Fight

"What's thim letters mean?" snapped the section foreman, pointing to the "P. R. R." on a box car.

"Why do you ask that?" said the maintainer.

"While yez talked," replied Pat, "I've bin thinkin' that one o' thim 'R's' might be standin' fer 'Rudd.'"

"Give 'im time and it will," answered the loyal signalman.

Meanwhile "Rudd" is what the "R" in signal department stands for. And the signal department of the P. R. R. is what Rudd stands for, works for, lives, thinks, dreams, has for his hobby, and uses to fill in the leisure moments of his busy life not otherwise occupied. For ten years it has been his absorbing thought, his state of mind, as it were, or, rather, process of mind, "state" implying something stationary, which his mind isn't.

For ten years he has been following Tom Lawson's rule for success, which is, "Paint the picture of your future and then fill it in." Holley painted his mind picture of his own future in 1905, when he and Frank

Rhea turned in, to their general managers, the famous Rudd-Rhea report. He called his picture "The Future of Signaling." The Rudd-Rhea report showed the great need for, and recommended uniformity in, the signaling on the Pennsylvania Lines only, and so was confined to that road's right-of-way. But Holley's picture wasn't. He "splashed on a ten-league canvas with brushes of comets' hair." He saw in his mind's eye the P. R. R. the best and most completely signaled road in the country, with the signals giving both safety and the maximum facility of operation; his signal department an independent department—the greatest in the world; all railroads using uniform signaling—with uniform rules; and discipline so enforced, that every suggestion favoring automatic stops would meet public disfavor. Some picture that!

Can he fill it in? "Give 'im time"—time and golf. He's been filling in since 1905, and has made considerable progress. Part of his picture—the uniform signaling part—is practically completed. This has caused him a lot of trouble and taken a lot of his time. He's had to do a little erasing and redrawing now and then, and an occasional regrouping and retouching of the figures. Experience has gradually taught him which aspects of the subject to present. Then, too, there has been considerable difficulty with the color harmony, as, for example, when he couldn't get the P. R. R. to use green for clear, yellow for caution and purple for dwarf-stop signals.

But he kept at it—kept on "painting," with the lightning brushstrokes of his ambition—and the uniform signaling part is now considerable of a picture. The R. S. A. critics have approved



The Most Criticized and the Least-Worried-About-It Signal Engineer in the Country.

it both as to line and color; and the A. R. E. A. critics are expected to put on it, this month, their stamp of approval as the ultimate expression of the "art" of signaling.

But Holley will go right on filling in. The success of this part is only a modicum of the success he looks forward to for his big picture. The next spot he will work on is that P. R. R. spot where the colors didn't stick. And when the annual "art" (of signaling) exhibition is over on March 22, next, he will retire to the seclusion of his studio in the Broad Street station, Philadelphia, and start in again mixing the green and yellow and purple.

"Give 'im time"—time to do the filling in, and golf to steady his hand. For that's what he plays golf for, every Saturday afternoon and during the week when he can. The learned M. D.'s drove him to it after they watched him work awhile.

Watching him work is a lesson in the intelligent application of nervous energy, a demonstration of logical reasoning without the syllog-

ism. His mental processes aren't less sure than other people's—but they're a whole lot quicker. His conclusions are the results of reasoning, not of intuition. They appear intuitive, however, because he reasons so fast. His mind works like an accelerated moving picture. It's one of those pell-mell minds that projects itself head first into every subject that's brought to its attention, encompasses that subject on its four sides and top and bottom, illuminates its "innerds," and then gets off to size it up in perspective, almost before the introductions are over.

If anything is quicker than thought his perceptions are. The apparent lack of balance is only over-balance in the direction in which he is going, like a man leaning too far forward when he's running. He's more than a human dynamo, because a dynamo needs something to keep it moving. He's a self-charging source of mental lightning.

He likes to work. If he didn't he wouldn't be where he is, in a job that requires so much of it, and taxes to the limit his by no means small capacity for it. With the characteristic restlessness of the nervous temperament, however, he's dissatisfied when he has more to do than he can do, because he can't do more; and yet he's unsatisfied as soon as he hasn't more to do than he can do, because he can do more. This somewhat complicated condition was the cause of his having to learn to play golf.

He had always contended he could play golf without learning. Finally, one day he agreed to prove he could, and he and Denney and Jim Mock headed for the links. At the first tee he put his ball down, hauled off with a mighty swing and smacked

it fair and square. It sailed off into the cerulean blue, headed straight for the green. They followed Holley down to hole No. 1, and there reposing at a point exactly eight inches from it was his ball. He carefully rolled it in, and then, throwing down his clubs, said to the bunch: "By Jove! I forgot a little appointment, and I've got five minutes to catch the train back to town!" He caught the train.

But after a while he began to play regular golf. Once he came into the clubhouse at Schenectady and showed Frank Rhea his score card. "Frank," he said, disgustedly, "I'm losing my form. I made the first hole in 12, the second in 14, the third in 19, and on the fourth I went all to pieces." He's gone around below 100 six or eight times. He won the R. S. A. cup at Richmond on a fluke, and never won anything before or since—at golf.

Alexander Holley Rudd is at the top in the signal business. But his upward progress hasn't been an upward climb so much as an upward march. In fact March is his anniversary month. In March he was born 46 years ago; began signal work 25 years ago; went to the New York Central 21 years ago, and to the D., L. & W. 13 years ago; returned to the Pennsylvania 10 years ago; was appointed chairman of Committee X (A. R. E. A.) five years ago; saw upper quadrant and speed signaling made standard on the P. R. R. three years ago, and other recommendations of his as to signaling practice made effective one year ago.

Lakeville, Conn., has the honor of being his birthplace. He began giving the customary audible signals on March 8, 1867. A precocious youngster, at 12 he had used up the school facilities of Lakeville, and at 13 finished the Hartford public school. Three years later he entered Sheffield Scientific College, gaining a year on his high school course. He graduated in 1886, a Ph. B., at the age of 19 years and three months.

In the fall of the same year he got a job drafting in the real estate department of the P. R. R. in Philadelphia. In February, '88, his friends, to counteract an offer from the Norfolk & Western, urged him to take a position the signal engineer, George D. Fowle, had open in his office for a draftsman. Holley had to ask what signals were. He had never noticed any. There weren't many to notice in "them days." March 1, '88, found him on Mr. Fowle's pay roll. Two months later the locking and dog sheet work—they made no circuits then—came Holley's way. He began to think locking, and for a while led a regular "dog" life mastering the subject. But he got it. About this time W. J. Gillingham came in from the motive power department, and "Gillie" and Holley immediately began one of those warm friendships that last always. In the summer of '88 Holley was offered, by George Gibbs, the position of signal engineer of the Chicago, Milwaukee & St. Paul, at \$90 a month. He declined.

On March 1, 1892, he went to the New York Central as signal inspector on the Hudson division under A. T. Dice, then superintendent of signals, and now vice-president of the Reading. Within a month he was offered another job, and as a result got a raise and was made signal engineer of the Hudson division. In that year 102 cabins and over 1,000 interlocking levers and the controlled manual from Spuyten Duyvil to Albany were installed. Charlie Anthony was then working for the Johnson Company; George Ellis was helping Holley; Pete Ten Eyck, now in Congress, was a batteryman; Sammie Hull was a maintainer. In 1893 Holley was made assistant superintendent of signals on his division. In March, 1894, hard times hit the "pike." Mr. Dice went to the Reading; his office was abolished; Holley got 30 days' notice, and Billy Kinch got both the Hudson and Harlem divisions, with George Ellis to help him.

It was August before Holley got another job, and then the best he could do was foreman of electric signals on the Hartford division of the New Haven with a gang of seven men, the entire signal force; and he went back among his old school friends in Hartford, to live on \$1.75 a day—which was possible then. It took him five years to work up to the salary he had received on the N. Y. C. But it was good experience, and he's been very slow to fire men since. He was with the New Haven for nearly six years; had charge of the lighting and a lot of other

electrical work at Hartford, and was eventually made signal engineer of the Valley and Hartford divisions.

In March, 1900, he was appointed signal engineer of the Delaware, Lackawanna & Western, and for the next three years was busy installing the new automatics on that road. He returned on March 1, 1903, to the P. R. R. as assistant signal engineer. He and Mr. Fowle, the signal engineer, were two-thirds of the signal force in the general office. Now he has 43 employees in his office.

In January, 1904, he was sent with two other officers of the road to Europe for a six weeks' investigating tour, and a year later was one of a committee of three who went on a trip through the South to study single-track block working.

He and F. P. Patenall were associated on the Washington Terminal installation. Before this was completed he was appointed to the P. R. R. Committee on Yards and Terminals, and Mr. Fowle to the Committee on the operation of the New York Terminal, and both were put on the sub-committee on signaling, of which George Gibbs was chairman. This committee, augmented later by two more members, met almost weekly for nearly three years. They are not at all ashamed of the results of their work.

On August 1, 1907, Holley was made signal engineer of the Pennsylvania, Northern Central, West Jersey & Seashore and Philadelphia, Baltimore & Washington railroads, and later of the New York Terminal division.

Holley has a genealogy. He is directly descended from Lieut. Jonathan Rudd, who came from England in the fleet with Governor John Winthrop in July, 1635, and settled in New Haven, Conn., and, on his mother's side, from Capt. John Holley, a first settler and distinguished citizen of Stamford, Conn. His family were related to the Porters, who bought Niagara Falls from the Indians, and owned them a long time. His grandfather, Alexander Holley, was governor of Connecticut. His uncle, Alexander L. Holley, has a monument in New York erected by the engineers of two continents. He was president of the A. I. M. E., vice-president of the A. S. C. E., vice-president of the A. S. M. E., and a member of the Institution of Civil Engineers and of the Iron and Steel Institute of Great Britain, and he brought the Bessemer steel process to this country.

Holley has also a perfectly bewildering list of social and other affiliations. He is secretary of his class and a member of the Yale Alumni Association of Philadelphia and of Omicron Chapter, Chi Phi Fraternity. He is a member of the Pennsylvania Society Sons of the Revolution, of the New England Society of Pennsylvania, of the Spring Haven Club, and the Co-Medians' Dramatic Association of Media, where he lives. He was the eighth member of the Railway Signal Association; was vice-president in 1906-1907; president in 1908; director in 1909, 1910 and 1911; chairman of Committee No. 1 since 1907, and is the representative member of the P. R. R. He has been a member of the American Railway Engineering Association since January 1, 1901; was director in 1909, 1910 and 1911; a member of Committee X since 1902; vice-chairman of that committee in 1907 and chairman since 1908. He is a director of the Holley Co., makers of cutlery, at Lakeville, Conn. He was the first foreign honorary member of the Institution of Signal Engineers of Great Britain, just reorganized as the Institution of Railway Signal Engineers, and he is a member of the Interlocking and Block Signal Committee of the Association of P. R. R. Transportation Officers.

No diagram is needed to show that Holley has a lot to do. Like the man who Fletcherizes, however, all he needs is time. He wants his time, though, not in the form of any more hours in the day, but rather more days. He works with the crystallized essence of concentration while he is working and plays in the same way. But these only fill in the hours when he has to be away from home, for his home, his wife and his two boys are his reasons for all of it. Wives are the inspirations of most successes but they don't often get the credit. To his wife's inspiration, calm counsel, and companionship Holley owes most of his success. The rest of it he owes to the fact that he's big enough to credit it to his wife.