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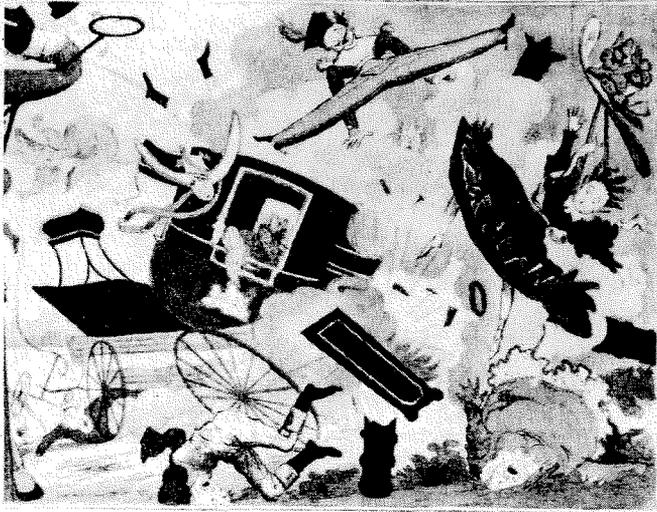
## REPRODUCTIONS OF PRINTS, DRAWINGS AND PAINTINGS

### 3. Caricatures of Early Steam Coaches<sup>1</sup>

By E. C. WATSON

THE interest that developed in England about 1830 in steam vehicles is reflected in the many caricatures of steam cars which appeared at that time (11 of these are reproduced here). While it seems to be human nature to ridicule new inventions, it will be seen that the new steam carriages fared rather well in these caricatures, which are on the whole truly humorous and often prophetic, rather than merely truculent. Some of the coaches are, it is true, shown exploding violently, but actually boiler explosions were not infrequent, even if only one fatal accident is recorded.

<sup>1</sup>Reprinted with a few changes and additions from *The American Physics Teacher* 6, 260 (1938).



GOING IT BY STEAM.

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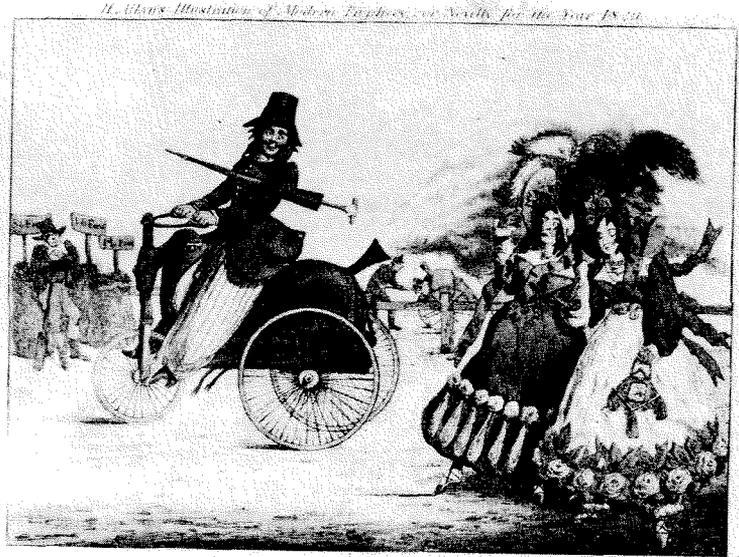
SOMETHING WRONG.

*At one trial of our engine, it lost its horse.*



*Illustration of a horse-drawn carriage from the year 1850.*

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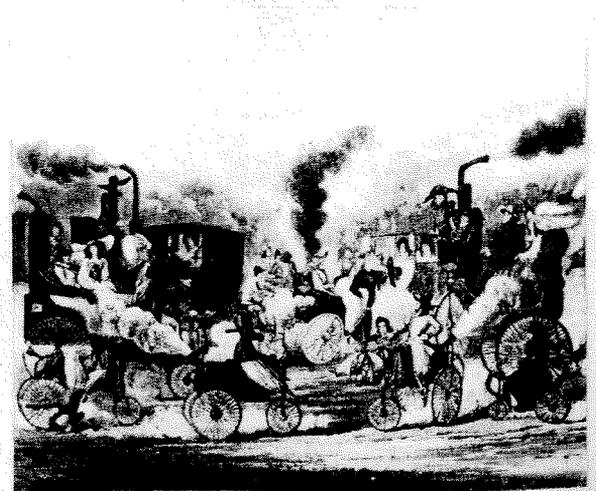
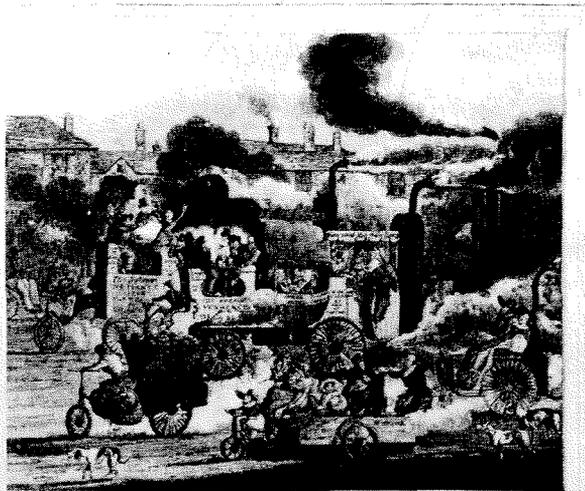


*H. Allen's Illustration of Modern Progress, or North for the Year 1850.*

*Enough the fillets following Dear, the West's folks his horse with caution lead.*

THE PROCESS OF STEAM.

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In the early 1830's steam coaches operated successfully as public carriers in London and on some of the main coach roads of England. Public sentiment against them was aroused, however, by the stage owners and drivers who feared that they would be robbed of business and by the farmers who anticipated the loss of a market for their horses. The "steamers" were ridiculed and even stoned and trenches were dug across the roads to impede their progress. In 1836 the English Parliament passed a law requiring that a steam coach should be preceded by a man on foot with a red flag to warn people on the road, and also permitting such heavy tolls on steam vehicles that operation at a profit became impossible. At the same time the steam railways with their higher speed were taking more and more of the passenger traffic and proving so profitable that business enterprise turned to their development. As a consequence, by 1836 the mechanical road carriage was practically abandoned in England; its further exploitation has taken place mostly in America, France and Germany.

One of the caricatures here reproduced (Fig. 1) is by John Leech (1817-1864), best known for his woodcuts in *Punch*. Another (Fig. 3) is by Robert Seymour (1800-1836), the first illustrator of *Pickwick* and the creator of the types of *Pickwick*, *Winkle* and *Tupman* upon which no successor has contrived to improve. The series of four (Figs. 8-11) entitled "The Progress of Steam" was executed by Henry Alken (fl. 1816-1831), famous for his sporting prints. The artists who executed the rest are unknown as the signatures "Shortshanks," "Sharpshooter," etc., are obviously pseudonyms. The originals are colored, are approximately nine inches by 13 inches in size, and were published by Thomas McLean, 20 Haymarket Street, G. Humphrey, 24 St. James Street, and G. King, Chancery Lane, all of London.

## C. I. T. NEWS

### DOCTOR ROSCOE G. DICKINSON

**D**R. ROSCOE GILKEY DICKINSON, professor of physical chemistry, and acting dean of the graduate school at California Institute of Technology, died on July 13 after a brief illness. He was 51 years old.

Dr. Dickinson was an internationally known scientist. In America, as well as abroad, he was well known for his early work on the determination of the structure of complex crystals by use of X-ray and for his study in the field of photo-chemistry.

He received his bachelor degree from Massachusetts Institute of Technology in 1915, coming to California Institute of Technology in 1917 as instructor of chemistry, receiving his doctor's degree in 1920. This was the first Ph.D. degree conferred by the Institute. He was a National Research Fellow from 1920 to 1923.

Since outbreak of war, he devoted full time to war research problems in connection with the Office of Scientific Research and Development.

Dr. Dickinson, who made his home in Pasadena, is survived by his wife, a daughter, and a son who is a lieutenant in the Navy; also a granddaughter.

## ADMINISTRATIVE REORGANIZATION

**J**AMES R. PAGE, president of the Board of Trustees of the California Institute of Technology, on August 20 announced a reorganization of the administration of the Institute.

Dr. Robert A. Millikan, who has been at the Institute since 1921, will retire as chairman of the Executive Council and become vice-president of the Board of Trustees.

Most of the administrative work of the Institute has been carried on by the Executive Council in the past. With this change in administration, the Executive Council is replaced by an Executive Committee which will be composed of members of the Board of Trustees and some staff members of the Institute. The staff members will consist of Dr. William V. Houston, Dr. Linus Pauling, Dr. J. E. Wallace Sterling, Dr. Clark B. Millikan and Dr. Richard C. Tolman.

The Board of Trustees is in process of selecting an administrative head for the Institute, who will be designated as president. Dr. William B. Monroe, who has been Edward S. Harkness Professor of History and Government and member of the Executive Council, will become Treasurer of the Institute. He will become emeritus professor to lecture on such subjects as he may desire. Dr. Max Mason, who has been chairman of the Observatory Council and a member of the Executive Council, will continue as chairman of the Observatory Council.

While Dr. Millikan will retire from the administration of detail matters, his continued association with the Institute as vice-president of the Board of Trustees will assure continuity and maintenance of high standards.

## PRESIDENT'S REPORT YEAR 1944-45

**F**IRST, regarding our program: Thanks to Ernie Maag, chairman of the program committee, Carl Friend, who handled the dinner dance, and Kenny Belknap, seminar chairman, and their committees. I believe our activities have entertained and provided engineering information to a larger number of alumni and guests this year than ever before. Attendance has ranged from 30 to well over 300, with the Walt Disney meeting attracting the most. Average attendance for the nine meetings preceding this was 135. I believe that bespeaks the enjoyment provided.

Second, *Engineering and Science Monthly*: Your Board of Directors feels that this is a great tangible product of our Association. We have, I believe, been successful in making this an interesting and valuable source of information for our members. Our success is attributable chiefly to our energetic and resourceful editor, Don Clark, and our capable and proficient publications chairman, Hugh Colvin. These men have been very generous of their time and effort in handling the interesting problems involved in publishing a periodical. We have been fortunate also in receiving regular and excellent editorial advice from Professor McMinn. Further generous advice and help has been received from Dr. Millikan, the Board of Trustees, the Faculty, and many of the Institute Associates. Members of the Alumni Association have responded promptly and efficiently wherever possible when asked to write articles for *Engineering and Science* and to aid in other Association work. One couldn't hope to find a more cooperative group.

The Placement Service has carried on a much more active program than would appear from a tabulation of men placed, because in these times every request filled represents many attempts before an available man is