

ENGINEERING

# Standards Adopted for Technical Abbreviations

## Elimination of Periods and Spaces in Printing Familiar Short Forms Will Save Space and Work

BY eliminating the use of periods and spaces in abbreviations for technical units, considerable space will be saved in printing many engineering papers, the American Standards Association has decided, in adopting new and official forms for these shortcuts. Having standard abbreviations, it is hoped, possibility of misunderstanding in defense and other important work will be lessened.

Formerly, for example, "revolutions per minute" was abbreviated as "r. p. m.," but the Association decided that "rpm" was perfectly clear and much simpler. But even though this principle was adopted in a list prepared in 1932, spaces were used. "Pounds per square inch," frequently used in connection with steam pressure for instance, was given as "lb per sq in." However, in typesetting, this requires thirteen operations in operating the typesetting machine to put in the letters, spaces, and the single period. The new abbreviation is simply "psi," which only requires the operator to strike three keys. Frequently, in the past, the diagonal line (/) was used instead of "per", as "lbs/sq in." This is now frowned upon.

Also discarded is the degree sign ( $^{\circ}$ ) for temperature. Instead of writing, for 95 degrees Fahrenheit, "95 $^{\circ}$  F," the proper way now is simply to write "95

F" as it is felt that the context is usually enough to explain what is meant, and that the reader would know that the numbers refer to degrees.

However, the committee which made these decisions felt that there might be danger of confusion where the abbreviated form was the same as a common English word, like "in" for inches, "log" for logarithm, "bar" for barometer, and it has sanctioned the use of periods in these cases. Evidently this was done against the wishes of the chairman of the committee, George A. Stetson, for he says in the Association's journal, *Industrial Standardization* (April):

"Perhaps a later revision will find the committee in a mood to trust to the intelligence of readers who are bright enough to know that log 303 probably does not refer to the number of sticks in a cord of wood, and who may be trusted also to interpret 29.92 in bar as a measure of the barometric pressure and not the number of persons making up a cocktail party."

*Science News Letter, July 12, 1941*

NAVAL SCIENCE

## New Weapons Alike in "Growing Pains" Period

THE INTRODUCTION of any new weapon, or any new defensive means, in the highly competitive art of war, appears always to bring on a period of instability, marked by constant revisions upward. This makes for rapid obsolescence of earlier models, entailing terrific expense on the part of powers that undertake to keep themselves completely armed. The development may eventually terminate in a period of relative stability, during which constant improvements may be made, but not such as to render wholly useless devices already in use.

Airplanes and their associated weapons are at present in the state of rapid development and rapid obsolescence. We are used to the phenomenon of the plane that was the speediest, the fastest climbing, the farthest ranging, the most heavily

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armed only a year or two ago being now only second or third best, and hence regarded generally as only a piece of flying junk.

This is very closely parallel to what happened in the development of the battleship, it is pointed out in a new book, *Sea Power in the Machine Age*, by Dr. Bernard Brodie (*Reviewed, SNL, this issue*). The naval rivalry between England and France in the middle of the nineteenth century, though they never came to blows, was curiously like the present deadly rivalry between Britain and Germany in the air.

The first ironclad was a French ship, *La Gloire*, built by the French in 1859, and "answered" very promptly by England. (Contrary to popular impression in this country, the Merrimac and Monitor were not the first armored warships; they were only the first two that happened to get into a fight with each other.) These early ironclads started out, modestly enough, with about four inches of wrought-iron armor. Heavier guns were of course immediately introduced, to smash it. Thicker iron and bigger cannonballs argued it out for a dozen years, until the warships of the seventies carried iron belts as much as two feet thick.

Presently steel armor was introduced, and since then battleship armor, though still massive, has never become quite so ponderous. By now a battleship a quarter of a century old is regarded as still serviceable, whereas a plane a fifth of that age is almost a museum piece. One is left wondering how long it will take for aircraft to get over their growing pains and settle down.

*Science News Letter, July 12, 1941*

## ESSAYS ON THE NEW VORTEX ATOM

by Carl F. Krafft

The author maintains that the atom does not have any nucleus as taught by the physics authorities of today, but only a structural center. Many diagrams of actual atomic structures are presented.

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