

STANDARDS

Standards are Good for Users And Producers World Over

Large-Scale Purchases Now Made Only by Speculation, Consumers' Organizations to Help Small Buyer Also

SPECIFICATIONS, standards, for quality, performance and practice—these bind the work-a-day world together, bridging oceans, crossing boundaries. Standards make it possible for any nut to fit any screw thread of that size. They prevent the buying of “a pig in a poke.”

Caveat emptor, let the buyer beware, is replaced by specifications and guarantees by the seller that his goods measure up to what is agreed generally is proper weight, size, quality or service. Consumer and producer find specifications and standards are good for business and good for users.

An immense amount of buying is still being done, particularly by individuals and small concerns, without any specifications whatsoever. But it is predicted that all buying agencies in a comparatively short time will purchase only upon some well-known specification.

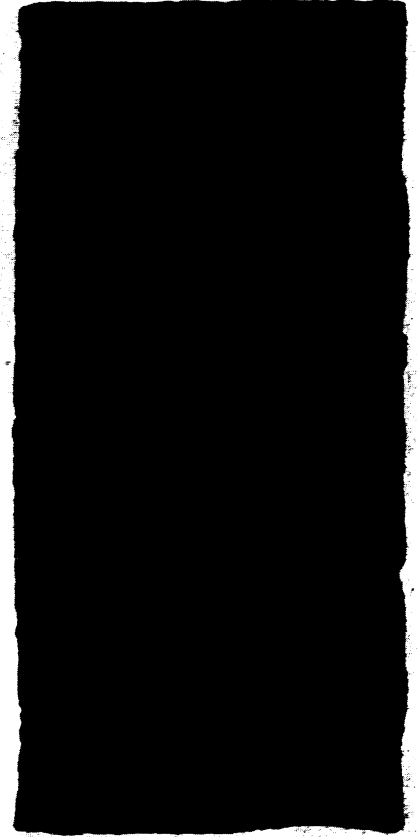
Scarcely a technical professional or trade organization exists without a committee on standardization. Here buyer and seller meet on grounds of equality. The more important national standards are given the blessing of a federation of societies known as the American Standards Association and world standards are cleared through the International Standards Association.

The consumer, who is individually each of us, has heretofore been inarticulate and at the mercy of the seller. But consumers' associations are remedying that by bringing to their members the same sort of technical advice that great

corporations find profitable in purchasing.

Often more than one group is concerned with standardization. For instance, James H. Herron, consulting engineer of Cleveland, has explained how the singer, piano manufacturer and scientist must work together to standardize musical tone. The manufacturer must set his standards to conform to the range of the human singing voice and yet be compatible with the physical structure of the piano. A singer trained to an instrument of certain pitch may suffer serious strain if required to perform at slightly different pitch. And an increase of only five vibrations per second in the standard A tone with a corresponding change throughout the scale would put an additional strain of about half a ton on the framework of a piano.

Science News Letter, February 19, 1938



LASTING IMPRESSIONS

CHEMISTRY

Long Storage May Lose Important Parts of Food

FOODS kept for years in a “super-normal” granary, if such a policy should be established, would be subject to more than the ordinary expected risks of moth and rust, mice and moldiness, Dr. Frank M. Schertz, Washington, D. C., plant physiologist, points out. The things we used to think of as prime importance in foodstuffs, carbohydrates, fats, and proteins, might be preserved with a minimum of loss, and yet the materials might lose so much of their vitamins and other perishable constituents that the stored masses might in emergency prove a delusion and a snare, filling our stomachs and yet starving us to death.

The idea of a “super-normal” granary was suggested originally by Prof. R. B. Harvey of the University of Minnesota. Prof. Harvey thinks that far wiser than the present national policy of burying a

vast gold reserve in the Kentucky hills would be the accumulation of hoards of food and feedstuffs, textile materials, and other farm and forest products. Prof. Harvey goes Secretary Wallace's ever-normal granary scheme one better, in that he would have it operated in terms of decades rather than mere years.

The hazards of long-time storage of foods are exemplified by Dr. Schertz in a single case, that of carotene, a plant pigment which is also an important vitamin. In fresh green leaf material carotene is present in ratios of only one part to from 6,000 to 20,000 of the total bulk. Yet without this tiny pinch of carotene we perish.

And carotene can not be stored successfully, in the dried state at least, even at low temperatures. Half of it is lost in as little as a month under ordinary storage conditions. Under specially controlled

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conditions the loss can be minimized; but Dr. Schertz has grave doubts of the practicability of maintaining the necessary supply of this and other vitamins in storage lasting many years. He advocates

thorough-going research as a necessary preliminary to any such comprehensive and costly scheme as a "super-normal" granary.

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ARCHAEOLOGY

Big Business (B. C.) Invented Writing—Because It Had To

Earliest Bookkeeping Entries Still in Existence Because They Were Written Solidly on Bricks

WHEN man could no longer do without writing, he invented it. Imagine priests in a Mesopotamian city in a busy temple, taking in herds of sheep as offerings, buying lands for the temple estates, making loans to hard-up devotees who can't pay up just now.

It is a science of big business in its earliest form, in the southern Tigris-Euphrates valley over 3000 years before Christ. The growing problem of handling so much wealth has the temple staff dizzy remembering who paid, how much, what is promised, what is due—

Writing has to be invented. And so, it is.

Archaeologists have been able to trace writing back to its start in these cities of Sumerian people in southern Mesopotamia, because buried in the ruins are hard, baked clay bricks inscribed with temple accounts. The oldest writing preserved in the world is baked into the oldest and crudest of these tablets of clay.

Whether these Sumerians were the world's first literate people may never be known. Other ancient peoples who had writing systems apparently began by using less durable writing materials, and their early efforts have not survived.

Writing was a city man's invention, in Sumeria. It was the development of city life that brought so much complicated finance to the temples.

That the invention of writing was probably inspired everywhere by the peculiar, practical needs of urban economy, is the view taken by Dr. V. Gordon Childe, professor of prehistoric archaeology at the University of Edinburgh.

It is no accident, he explains, that the world's oldest writings turn out to be bookkeeping accounts and dictionaries. The accounts are office files. The dictionaries are schoolbooks used in teaching

young scribes to write. And if Egypt's earliest writing had been preserved, it would, he believes, be of some such severely practical nature.

Not only were these early entries carefully made; they have been permanently preserved. Almost everything Babylonian scribes ever wrote is still in existence.

That is one of the real wonders from the ancient world. And it is true, not only of Babylonians, but also of Persians, Assyrians, and other civilizations that used clay bricks for stationery.

It is not easy to visualize, in this day of flimsy paper and incinerators, that every clay letter, read and thrown away, is buried somewhere. Every legal document, every book on science, religious psalm, and political treaty entrusted to clay is there, buried deep, perhaps, but waiting to be dug out and read.

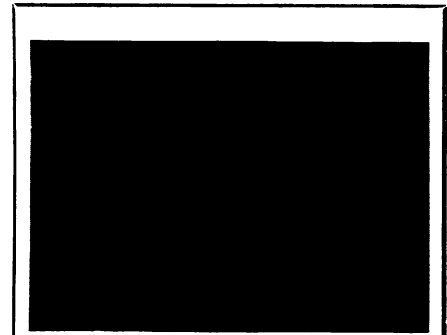
All this has been realized only since archaeologists began exploring the Near East. Even modern scholars are vastly impressed, as full implications of the situation become evident.

Dr. George Cameron, of the Oriental Institute of the University of Chicago, speaking at a meeting of the American Institute for Persian Art and Archaeology, said:

"Who would have believed as few as ten years ago that 29,000 tablets—and more—would be discovered in Iran, all from one site, Persepolis, and belonging to one or two short generations of mankind?"

One serious difficulty besets the scholars striving to read this mass of writing. Many of the clay bricks were badly broken when library shelves collapsed in ancient wars and earthquakes. But even this fails to depress workers like Dr. Cameron, who reason that, if an epic or other writing was significant enough, copies were made in many cities.

In time, he cheerfully predicts, the im-



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portant literature will be pieced together. Already, it is surprising to realize that we know more about daily life in a Babylonian city than life in Athens.

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ARCHAEOLOGY

Real Tough Rough Riders Were Sumerian Charioteers

See Front Cover

STRONG though the temptation is to call the bearded charioteer pictured on the front cover "Ben Hur of Ur", it would not be quite accurate to do so. For the little statuette comes not from the famous Chaldean city but was dug up at Tell Agrab, near Baghdad. Probably, though, Ur's warriors drove to battle in just such jolting war-chariots behind teams of four scampering donkeys.

Notable are the big copper studs that circled the wheels, tire fashion, and the driver's not-too-comfortable position astride a continuation rearward of the chariot pole. It is to be noticed especially that he is shown standing on the floor of the chariot—he probably didn't sit down much.

This interesting find, which dates from about 2800 B. C., was made by an expedition of the Oriental Institute of the University of Chicago.

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