

JUNE 11, 1966



*"Look, I've told you! We won't take the helicopter back to the Pan Am Building if it scares you. We'll take a taxi."*

in 1925) reveals that the *pons asinorum*, or asses' bridge, is none other than the first theorem to be proved in Euclidean geometry—that opposite angles of an isosceles triangle are equal—and that the machine's "new" proof was originally introduced by Pappus in 300 A.D. Computers have still made no great impression as composers, and hopes for high-quality mechanical language translation have been frustrated, too, despite government-research investments of about sixteen million dollars, for computer programs have founders in unsuspected ambiguities of syntax and semantics. (A short while back, one of the best in the field was asked to translate "Time flies like an arrow" from Russian into English and came up with "Time flies enjoy eating arrows.")

In the face of these and parallel stymies, workers in cognitive simulation refuse to be discouraged. Mr. Dreyfus compares their pertinacity to that of the alchemists, who, after initial triumphs in distilling quicksilver from what seemed to be dirt, labored fruitlessly for several hundred years to transmute lead into gold, feeling themselves to be ever on the verge of a breakthrough. By defining "progress" as "displacement toward the ultimate goal," today's alchemists, the cognitive-simulation

workers, obscure the prospects for artificial intelligence. According to this definition, Dreyfus points out, the first man to climb a tree could claim progress toward flight to the moon. He suggests that the workers' unrelenting optimism is founded on the unfortunate Cartesian assumption that human information-processing must be analyzable into "simple determinate operations," or discrete steps, much like those achieved by a digital computer. If, in reality, "thinking" entails more mysterious kinds of mental activity as well, there are a great many offices that machines won't ever be moving into. Some weeks ago, in a pleasant turnabout, a collection of scientists at a Symposium on Computer Usage agreed that machines will forever be confused by complexity. "Computers can add and subtract one million numbers in one second," Dr. Warren S. McCulloch of M.I.T. explained. "No man can do this, but man can slip into any of fourteen different modes of action—from sleeping to fighting—in about three-tenths of a second. He has about one trillion computing neurons that bring together two million separate biological components all at once."

So while cybernetics enthusiasts burble happily over the success of Compatibility Research, the computerized

matchmaking service that is now pairing off college students on an international basis, we take some quiet satisfaction in the Lincoln Center Repertory Theatre's most recent stride toward modernization. An I.B.M. 1401 computer made such a botch of handling ticket requests that extra human help took forty-five straight days, working twelve hours a day, to straighten it out. In consequence, Robert Schlosser, subscription supervisor, dispatched to subscribers a letter that may be a harbinger. In it he announced the installation of "an improved method" for handling subscriptions—"substituting a manual process for the automated process in use until now." Now that the computer has been fired and some competent people have learned the

machine's job, we don't care what the machine is going to do.

THE truffles at the Gristede's on University Place are kept in the cash register.

#### *City Fragments*

WE went over to the Brooklyn Museum the other day to see a new outdoor sculpture garden containing fragments of various nineteenth-century and early-twentieth-century buildings that have lately been torn down in the five boroughs of New York. The garden, which is the first of its kind, owes its existence in large part to the Anonymous Arts Recovery Society, a group of dedicated scavengers who for the past seven years have managed to save bits and pieces of architectural history by bribing wrecking crews, sifting mountains of debris, carting away heavy stones, and, when necessary, raiding demolition sites at night. The Museum has now rescued the rescuers, so to speak, with its garden, which occupies three-quarters of an acre in what was formerly its back yard. Built with funds set aside by the late Mr. Walter N. Rothschild for a memorial to his