naïve pollster who uses the listening habits of 1,500 families to represent the habits of 41,000,00 radio owners of America . . . I don't know how adequate the sampling methods of the Neilsen poll may be. . . . But the fact that only a small percentage of the population is interrogated does not automatically invalidate the procedure. . . . Surely Mr. Ace has been told that very small numbers will provide a good estimate of a large population when they are

selected from that population in an

Allrighty, Mr. Brown.

unbiased fashion.'

I have a letter from the Indiana University Press, Bloomington, Indiana: "I am particularly pleased to see you are not afraid to take potshots at surveys. ... There is nothing like drumming up a substitute for thinking with clichés, slogans, and catchwords, selling them to the people through the stimulation of a kind of newspaper by-line, and then taking a poll of opinion to see what people 'think.' This survey applies to radio and to mass media of communication and entertainment.'

I have another letter from an executive at WCBS-TV: "Would that every sponsor and agency executive would blow up your 'Rate Race' feature, paste it on his east wall, and bow to it each morning before taking his bicarb."

Well, Mr. Brown, since you don't mind a small sampling of opinion I am obliged to announce the results of this poll as showing a two to one verdict against the Neilsen-or extended to our population, 100,000,000 against it, 50,000,00 for it. And I believe your letter and the other two represent a cross section, with your section a little crosser than the others.

—Goodman Ace.



Rafael Kubelik—"a sizable phenomenon."

Music to My Ears

KUBELIK LEADS A YOUTH MOVEMENT

AMSTERDAM.

ETWEEN the factual island which is England and the political one which is Vienna, Holland generally and Amsterdam particularly seem a mainland of security in which a music festival is neither an aggressive nor an empty gesture. Blessed both by creature comforts and mental security the public can muster something of the holiday mood appropriate to the word, and the performers can put forth the energy to comprise the deed. The consequence to one who has recently been both in England and Vienna is a vitality of accomplishment not heard in either place.

As an example of the selective rather than the inclusive procedure one may cite the work of Rafael Kubelik as he was heard directing the BBC Orchestra in London's Festival Hall last month and the Amsterdam Orchestra in its famous Concertgebouw last week. In London Kubelik's concert was one of two on the same date and one of fourteen in the same week. In Amsterdam it was one of three spaced over a week, and he was the conductor for all. Any conductor's gifts would have more chance to assert themselves in these circumstances; a conductor of Kubelik's remarkable attainments had the Concertgebouw Orchestra playing in a way that few in the world could match and scarcely any excel.

Whether or not this young man is happy or appreciated in Chicagoworse luck Chicago if he isn't—he is certainly a sizable phenomenon in the general panorama of contemporary musical performance. The zest he gave to the Concertgebouw Orchestra's playing of Smetana's "Bartered Bride" Overture has not been matched for this listener since Vaclav Talich was rousing melodious air currents in Smetana's native Bohemia; and the evening-ending "Taras Bulba" of the equally Slavonic Leos Janacek was churned into a roaring tide of well-modulated tone by Kubelik. Lest it be surmised that the young conductor's aptitude is largely, or primarily, for the works of his countrymen-he is, of course, the son of the long-celebrated Czech violin virtuoso Jan Kubelik—he had his feet firmly planted on two other widely separated areas of musical thought: Mozart's C minor (K.491) Piano Concerto, in which Robert Casadesus was the able soloist, and a new symphony (No. 3) by the Dutch composer Guillaume Landré.

As little as the name of Landré suggests a Dutch composer, even less does this symphony suggest a composer whose reputation is confined to his own land. Through devious ways Landré has come to the use of the twelve-tone technique for this score, in which he manages the considerable feat of being expressive as well as impressive. Neither length nor brevity are themselves an index to creative merit, but the composer has judged his materials well and utilized them persuasively within a suitably short span of twenty minutes. The beginning and ending sections are slow, the movements between fast-a discipline which accords with Landré's creative impulse in this instance, if it might in no other. My impression is that the score will travel well, especially if Kubelik is entrusted with its journey to foreign parts. The enthusiasm of the audience was measurably more than might have been occasioned by mere chauvinism.

HANKS to the well-rounded program of the Holland Festival the first week-end cycle of events also provided the opportunity to hear at close range one of the rising young ensembles on the chamber-music horizon. A series of recordings from England had given luster to the name of the Amadeus Quartet; its emergence as bodies, names, and personalities added the relevant point that, for all its recent orientation, three-quarters of the performers are Austrian refugees who carried with them to England as much younger men a style of string performance essentially Viennese. Adding the influence of a musical society that produced so fine a group as the London Quartet has seasoned Viennese sweetness with a little tart brusqueness and given to finesse a robustness by no means common.

In the cozy small hall that the enveloping Concertgebouw provides for such manifestations the Amadeus ensemble had an enervating struggle against an unseasonably warm June night. But its playing of a Haydn quartet (Opus 33, No. 2) twinkled and its versions of Mozart quintets in G minor and C (Cecil Aronowitz was the added viola) echoed the vitality and power that Kubelik had put in circulation the night before with the Concertgebouw Orchestra.

Whether or not such virtues can be infectious is beyond speculation; but it is certain that the absorption of the audience and its unstinted applause could be epidemic. Following the dazzling finale of the C major Quintet in which Norbert Brainin led his mates a merry chase, the listeners paid the effort the highest mark of Dutch approval. To a man the audience rose as the players did and stood in place to cheer and applaud for minutes after--IRVING KOLODIN. wards.

SCIENCE

(Continued from page 16)

defining a proposition as a sentence which asserts or denies something. A fact is a proposition which can be verified, and an hypothesis is a proposition which has not been verified but serves as a temporary explanation for observed facts. If words are not carefully defined they may "acquire a capital ("Truth") and go on to become 'Eternal Values,' and then they are half way to becoming our masters instead of our servants."

The author then analyzes contributions of Aristotle (who was often misled by words), Bacon, and Newton to the growth of modern research. A final chapter—written in the form of a Socratic dialogue—presents an articulate scientist's attitude toward religion, esthetics, and ethics. This book is a brilliant introduction to the philosophy of science. It is recommended as an antidote to current tales about colliding worlds, engrams, and flying saucers.

THE LIVING TIDE. By N. J. Berrill. Dodd, Mead. \$4. Norman Berrill, professor of zoology at McGill University in Montreal, has a laboratory at Boothbay Harbor on the Maine coast and has spent considerable time at other research stations in this country and abroad. His charming book is a fascinating story about organisms that live in the sea, from microscopic diatoms to whales and squid more than fifty feet long.

Connoisseurs will learn a good deal about their favorite delicacies. I have personally accounted for hundreds of Maine lobsters and have discoursed at length on their habits and general anatomy. But I never noticed any difference between the two claws until Dr. Berrill informed me that "since a knife and fork are better than two knives, one claw has become a crusher and the other a cutter." You will gain similar insights into the ways of oysters, scallops, clams, crabs, and other seafood.

There are accounts of less familiar creatures like the piddock, a clam that can bore its way through concrete and solid rock. When two piddocks meet neither moves aside; the stronger grinds a relentless tunnel through its rival. Here, too, is the story of the mysterious disease that started on the Southern Atlantic coast about a generation ago, wiped out rich forests of eel grass, and spread along coastlines throughout the world. This plague is believed to have been caused by "an unidentified virus" (which is another way of saying that biologists still don't know what actually happened).

Dr. Berrill is always entertaining—whether he writes about rockpools, anemones, sea urchins, or Oliver, the neurotic octopus who was saved by



brain surgery. He also indicates how these observations fit into the broad picture of modern biology, perhaps the most rapidly advancing of all the sciences. "The Living Tide" is a delightful blend of fact and fine storytelling.

—John Pfeiffer.

THE LIVING YEAR. By Richard Headstrom. Ives Washburn. \$3. Heretofore Richard Headstrom has written a brace of well-organized contemporary guides for the birds' nests of the entire United States and a well-balanced history of Russia. He teaches nature lore at Dover, Massachusetts, about fifteen miles due south of Thoreau's Walden Pond. From there he roams throughout New England, habitat of his fauna and flora.

Twelve monthly chapters make the tempting divisions of such topics. Mr. Krutch starts his with spring and lyrics; Mr. Headstrom with January and a Brueghel-like landscape. He philosophizes less than others of his like, writes more tersely. In January "foxes hunt for rabbits, field mice, and other food": in July "potter wasps construct their miniature water jugs"; in September "marigolds still enliven cheerless ditches"; in December "screech owls search for mice."

Fourteen clean, serene line drawings by Anne Marie Jauss, animal portraitist of New York, add more charm to this book.

THE HEAVENS ABOVE: A Rationale of Astronomy. By J. B. Sidwick. Americanized by Warren K. Green. Oxford. \$4. A much greater readership exists for this splendid book than the author and modifier anticipate. Mr. Sidgwick, a versatile Englishman who has published poetry and children's books, raised nutria, and directed ship's guns, wrote for "astronomical dilettanti" to whom the wartime blackouts "made the night sky visible for the first time since the introduction of street lighting." Mr. Green, who Americanized the English edition so cunningly that the jointures do not show, seemingly retains the same elevation.

However, there is a multitude of youngish men and women to whom such an explanation of the universe has clear meaning and practical use.

They are the flyers, navigators, tank drivers, gunners, and all those who manage machines that roll, heave, pitch, and bounce forward through the three dimensions of air, sea, or rough terrain. They habitually think in angles and motions, in trigonometry and the calculus, and many of them. even in the powerful mathematics of matrices. They and a great many others handle electronics, radiations, and nuclear energy in the daily turns of their lives. The actions in the heavens do not awe them. Nor does the span of a light year outspan their understanding.

Yet these, as well as the dilettanti, can learn a great deal from this book, especially from the commendable step-by-step way that Mr. Sidwick uses measurement and analogy to guide them from what they can perceive on this earth to the farthest reaches of assured imagination.

The explanation starts with a description of the shape and size of the earth, progresses to the apparent motions of the stars and planets seen by the naked eye. It respectfully presents the Ptolemaic idea that all the universe revolves around the earth. It shifts smoothly to the Copernican hypothesis that the earth and other planets revolve around the sun and that the sun is a star among a vast, vast number of other stars. With our unaided eyes we can see the Milky Way bending across the sky. With our informed minds we

FRASER YOUNG'S LITERARY CRYPT No. 420

A cryptogram is writing in cipher. Every letter is part of a code that remains constant throughout the puzzle. Answer No. 420 will be found in the next issue.

ULX KXGU BVYUVQG

CE ULX TVQDB JQX

BVYUVQ BCXU, BVYUVQ

PHCXU, JEB BVYUVQ

OXQQIOJE.

-M. GTCAU.

Answer to Crypt No. 419

Polysyllabic (or what the common people call dictionary) words.
—S. T. Coleridge:
Biographia Literaria.