

LETTERS

Reread Carson

DEAR SIR:

I was surprised to find that the articles by Rachel Carson in the New Yorker have produced the reaction they have on the editorial pages of C&EN. After reading two editorials in as many weeks, I reread Miss Carson's articles, thinking I had missed the "emotional" quality they are claimed to have. Miss Carson is not impartial, perhaps, in the sense that she takes no stand, but she is neither unreasonable nor unreasoning, and the emotional quality of her articles is no higher than that of the editorials. It is hard to understand particularly the second paragraph in the editorial of July 30. There are "serious implications" in Miss Carson's articles, as you state, but not an "absence of firm factual support." Moreover, it certainly is not "clear from Miss Carson's articles" that "unfavorable results from pesticides are limited." She presents case after case to show precisely the

It is an interesting coincidence that the two examples of opposition to pesticide use mentioned in the news article. "Pesticide Sales Pick Up." (C&EN, July 2, page 21) are two of the cases Miss Carson develops most fully in her second article. She devotes a dozen paragraphs to the fire ant, including quoted statements from six sources concerning the effects of the control program and the damage done by the fire ant, which is quite at variance with the unsupported statement in C&EN. A similar amount of space is spent on the history and results of successive "eradication" programs on the gypsy moth. Mr. Soraci's irritable statement contrasts strikingly with Miss Carson's temperate discussion of this case, as well as others she takes up, including the Japanese beetle and the Dutch elm disease. (Epiron's NOTE: For other letters and comment on this, see C&EN, July 16, page

The editor of C&EN calls for "extremely careful reading of the facts" and avoidance of emotionalism, and this is certainly necessary in a problem of this importance. But he has not troubled to get the facts on Miss Carson straight nor to determine just what she has said. He does her a serious





NEW WAXES

for HOT-MELT ADHESIVES

Wax X-9 and Wax X-12 are straight-chain esters . . .

they serve as difuents for adhesive rosins and resins!

lower melting ranges and application temperatures!

X-12 beins equisity Du Pant Elvax 150 in low density polyethyteos.

X-12, plus Ou Popt Elyax 150. gives 50% stronger film than paraffin plus Elyax 150.

These waxes are compatible with ethyl cellulose, polyvinyl botyral, ethylene vinyl acetate and polyamides.

Wax X-9 @ 15, per lb., T/cars Wax X-12 @ 20e per lb., T/cars

WERNER G. SMITH, INC.

1730 TRAIN AVENUE . CLEVELAND 13. OHIO Phone: Tower 1-3676

implying that she savo-Teturn to a primitive state of Near the beginning of the cle she states that "insect consome sort is necessary and and she returns to this theme and of the last article. But she blect to the indiscriminate use redicides and herbicides without Pumping clear corrosives and acconsideration of the consein lab or consideration of the consepilot-plant amounts?

Here's the ideal circulating and wasteful, but that it usually
transfer pump for handling mode and wasteful, but that it usually
amounts of clear corrosive liquids, thermore, that insect and weed conIt's the Goulds Model 3604; and far often be obtained more effect
though it's merely a foot long, it is
built to process standards. Rugged by and cheaply by less drastic
built to process standards. Rugged by and cheaply by less drastic
built to process standards. Rugged by and cheaply by less drastic
built to process standards. Rugged by and cheaply by less drastic
built to process standards. Rugged by and cheaply by less drastic
built to process standards. Rugged by and cheaply by less drastic
built to process standards. Rugged by and cheaply by less drastic
built to process standards. Rugged by and cheaply by less drastic
built to process standards. Rugged by and cheaply by less drastic
built to process standards. It will deliver a total for the side seven to be considered with
heads to 28 ft. Available in 316 Stain
Diff. the shelf delivery on standard facts. In view of the dangerous namodels. Also available in explosion for the chemicals involved, this
proof design for hezardous locations intude is not wholly reasonable, espeMore facts? Ask for Bulletin 725 by with the case of thalidomide in
Write: Goulds Pumps, Inc., Dept.
Butter of the standards of the lisynasitation of Miss Carson's reputalandards of the design of the standards of the lisynasitation of the standards of Pumping clear corrosives and consideration of the conse-

GOULDS PUMPS and discussion than she has re-

If she has not told the whole truth, she fould be refuted with facts, not with impations.

EDMUND]. BLAU

Kensington, Md.

Drug Patents

DEAR SIR:

For some time I had been puzzled y an oft-seen statement that the bill strengthen and improve the operaon of the U.S. Food and Drug Administration, as originally proposed by Ken, Estes Kefauver (D.-Tenn.) alimited new drug patents to three frars. This appeared to me to be an attremely arbitrary provision. The Saturday Review for Aug. 4 (page 38) contains a more detailed description of this provision of the bill as originally proposed. It makes Sen. Kefauver's Patent provision clear and much more Reasonable. I quote, "A requirement that if, after holding a patent on a drug for three years, the maker of that thrug still sells the drug to druggists at price more than 500% above the panufacturing cost of the drug, then The drugmaker must license other complanies to make and sell the same True."

Many of the important recommen-plations of the original Kefauver bill

TROPILON BLACK

high performance chemical resistant coating

Of Catalyzed clastomer, Tropilon Black provides durable protec-tion in severest chemical exposure conditions, where conventional paints fail in hours. Tropilon Black protects steel, masonry and wood from corrosive attack of furnes, splash, and even total submersion in industrial acids and alkalis.

Use new Tropilon Black on chemical tanks, piping, plating or processing equipment, structures subjected to extreme chemical exposure.

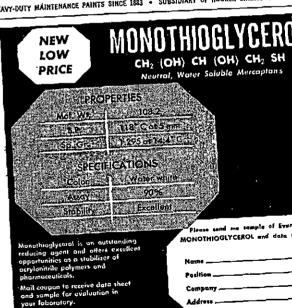
Easily applied indoors or out. by brush, roller or spray. Write for chemical resistance table showing Tropilon's performance under various corrosive conditions.



Test panel, coated with new Tre Black, completely protected during immersion in hydrochloric acid.

PAINT COMPANY TROPICAL PAINT COMPANY

HEAVY-DUTY MAINTENANCE PAINTS SINCE 1883 . SUBSIDIARY OF HOOKER CHEMICAL CORP



SEPT. 3, 1962 PART 1

over

For additional suffer com-phends, see our ad in Chemical Materials Catalog.

III, P2824 ITTERS

Right now? Just call, and AMSCO's there! And Importance of Boy Scout award lidges, National Medals of Science, and even a Nobel Prize as significant

On one day's notice, Amsco can deliver benzene to you in any quantity, wherever possible, rather benzene to you in any quantity, wherever possible, rather the reverse. your location. Amsco Benzene is now available in more locations than any other benzene on the market.

Eliminate your inventory worries. Get Amsco Benzene in the amount you can use conveniently . . . and get it where and when you want it.

The remarkable Amsco serviceeven 24-hour emergency service-is yours through new, expanded production facilities and the most extensive supply system in America. (There are two new petrochemical plants on the job, together with Amsco's vost distribution system.)

Get high-quality Amsco Benzene (there's never a variation in specifications). Large or small, your order will bring prompt delivery.

BENZEMS - XYLENES - NOMERS - Problems caused by them.

AMERICAN MINERAL SPIRITS COMPANY

NEW YORK . SALES OFFICES IN PRINCIPAL CITIES 🥻

hould Save Money

editorial, Stature for Science k" and the news report, "ACS commend Scientists for National al of Science" (C&EN, July 16, 7 and 61, respectively), strike miliar chord: As professional sciwe too are to try to get our in the till. It is indeed unforate that your argument for a stid to accompany the National hids of Science is not a question of sinciple, for it is a foregone conclu-Congress to establish a \$1.00 award

am unimpressed with the funda ctivating factors in the life and reearch of a truly professional person.

As a professional society, our offorts should be devoted, at least in art, to the reduction of governmental

CHANNING H. LUSHBOUCH, PH.D. Eponsville, Ind.

Shortage of Facts and Excess of Emotion"

Your editorial on pesticides (July 0) suffers from the very faults it finds others: shortage of facts and excess

Shortage of facts: The editorial suppresses the fact that not all pesbeides are on trial. Among the broad pectrum of pesticides can be found effective agents which because of specficity and/or fast rate of decomposition can be considered relatively safe. There is a well known parallel in the feld of detergents and the sewage

After pointing out the danger of incorrect handling ("carclessness and (tallousness") the editorial presents as a fact something which is merely a vision of Utopia: "Control adequate for safe use is possible." If the editor knows how to supervise the handling of dangerous poisons by hundreds of thousands of farmers, dairymen, crop dusters, and plain home gardeners, he

ought to tell the authorities who are trying to control the use of narcotics.

Excesses of emotion: "of humans dying of starvation." We were discussing the good old U.S.A., I believe, not Red China. I suggest you dry your tears. It may cheer you up to think of all the storage bins filled with excess agricultural products and all the rent you are helping to pay with your taxes. The more pesticides, the more rent. By the way, much damage to bird life is caused by treating ornamental trees with pesticides; but then, think of the starving humans saved in the nick of time by a dish of elm leaves.

Asheville, N.C.

French organie chem Murgburg 1937 My Clenucil - dyes

DEAR SIR: Olin Matherson 42 When the sellers of pesticides for profit lay the burden of proof on the buyer, then I submit the mute common man needs an advocate with the power and persuasion of Rachel Carson to defend him. Rachel Carson was writing against the broadside and indiscriminate use of general-purpose insecticides. I did not see anywhere in her articles that she denied that "fundamental research must allow the scientist to follow his curiosity in the search for new knowledge." In fact, I fail to see the connection between the search for truth and the sale and application of pesticides.

HERBERT INSLEY

Washington, D.C.

Otis Is in Kansas

DEAR SIR:

It was noticed that your article, "Government's Helium Program Ready to Roll," in the July 9 C&EN (page 30), listed Otis, Tex., as one of the Bureau of Mines' helium plants. It is my opinion that the Otis plant is located in Otis, Kan., and not in Texas, or does one also exist in the Lone Star State? Please don't give everything to Texasi

CENE W. SCHMIDT

Hays, Kan.

New... Model ED-5

Wiley I ARORATORY MIL

Developed to meet the demand for a size between Intermediate and Model



- 5-inch chamber diameter
- 3-speed enclosed drive
- simplifled sleve constructi

For laboratory or semi-pilot plant n no innoratory or semi-puot piant in ing of a large variety of materi Chamber capacity is approximately it that of Standard Model. Basic Wi principle, which minimizes sample chan due to temperature rise, moisture loss lausteritor is avaisad.

llqueiaction, is retained. Grinding Chamber. Cast iron steel, 5 inches diameter × 2 inches d Shearing clearance precisely set between four rotating knives and four adjust knives in the frame. Fan action ap

Knives. Tool steel, hardened and to pered. Stainless steel knives are avails Drive Unit. Provides unloaded sp of approximately 500, 800 or 1200 r. Steel cabinet encloses 1/2 h.p. m. pulleys and bearing assembly.

Door. Steel plate, pivots for full dian access to the chamber. Safety electinterlock disconnects motor when do

Sleves. Curved, round hole screen stainless steel, inexpensive and einterchangeable.

Receivers. Threaded collar on takes Mason jar. Collar is removable attachment of a bag or smaller

A276-Z10, Wiley Mill, Medel ED-5, sad with 16, 1 and 2 mm sleves, and three 1-pint jars. With 3-wire card, 3-prong plug and as Shipping weight 186 lbs. For 115 votz, 50

For description of other models of Wiley Mill, see pp. 346-350 of our c



ARTHUR H. THOMAS

Scientific Apparatus VINE STREET AT 3RD PHILADELPHIA 5, PA., U. S



Book Reviews



Cardiopulmonary Data for Children and Young Adults. By D. E. Cassels and M. Morse. Pp. 134. Thomas, Springfield, Ill., 1962. \$7.

The book consists of a series of physiological values in tabular form obtained from laboratory studies performed at the University of Chicago. Nine topics are presented: Heart rate and blood pressure; blood and plasma volume; hemoglobin concentration and oxygenation; carbon dioxide and pH values of arterial and venous blood and plasma; electrolyte concentrations of plasma and the effect of exercise on electrolytes; selected respiratory data; and maximum breathing capacity. Data obtained from patients with congenital heart disease and kyphoscoliosis are also presented. The last 2 chapters include tables of electrocardiographic changes during exercise and studies of peripheral blood flow in children.

This cannot be regarded as a complete handbook of cardiopulmonary data, nor do the authors intend it to be so. The fact that all investigation was carried out in one laboratory under the same supervision lends greater significance to the results. Although identical figures may not be obtained by other laboratories, the results should be easily related. Baseline values for normal and deranged function are an absolute necessity in advancement of any science, and this book should be a useful addition to any laboratory where cardiac or respiratory studies are made. Descriptions of procedure under each heading are complete and lucid. One might disagree as to types of laboratory procedure chosen in some instances, but this is no real criticism. The book is enthusiastically recommended.

DEAN CROCKER, M.D.

Silent Spring. By Rachel Carson, 368 p. Cloth. \$5. Houghton Millin, 2 Park St., Boston 7, 1962.

Rachel Carson, like a zealous and overanxious mother, wants to be sure that her children do not play with matches. So she has constructed an abominable snowman which has a chlordane body, long malathion arms, and a parathion head which belches forth huge clouds of DDT. The name of her snowman is Silent Spring. And if you don't watch out, it will upset your chromosomes, mutilate your genes, and decimate your crythrocytes.

Miss Carson, in fact, is so protective and so fearful lest her children get burned, that she would like to abolish matches from the face of the earth, the matches being chemical pesticides. This, of course, has made the pesticide manufacturers, who run a \$300 million business, quite angry. The result is that Silent Spring is on the best-seller list.

Miss Carson is a biologist and the major portion of her book is concerned with the effect of chemical pesticides on the so-called balance of nature. Of particular interest to physicians are 2 chapters on cellular metabolism and the carcinogenic properties of several insecticides, some of which are available as household products.

That Silent Spring has raised a storm. second not even to the cranberry crisis of 3 Thanksgivings ago, is now evident. Part of the irritation that comes in reading the book, outside of the fact that Miss Carson uses emotion-arousing words, is that one feels somehow that she is partly right but cannot know where she is wrong. One is left with the impression that Miss Carson is simply against chemistry and for biology, or against synthetics and for life.

Instinctively, one wants to choose sides in the Carson vs. Chemical Pesticides controversy. The side you stand on depends largely on whether your hobby is bird-watching or your occupation is food-growing.

Regardless of one's personal feeling about the chemical pesticide controversy, the book should be read by all physicians. The fact that patients are reading it is justification enough. Whether or not the balance of nature is going to be ruined or whether or not we shall all die of leukemia is a moot point. With the population experts worrying that too many people are being born and with Miss Carson worrying that too many people are dying, perhaps a conference ought to be called.

M. THERESE SOUTHGATE, M.D.

Syphilis, Modern Diagnosis and Management. Anonymous. Pp. 63, U.S. Dept. of Health, Education and Welfare, Public Health Service Publication No. 743, U.S. Government Printing Office, Washington 25, D.C., 1960. \$2.

In 63 small pages of type arranged in an eatily readable style and with 43 good color illustrations, modern knowledge of syphilis has been well summarized. Each stage of the disease is described succinctly and with the authority of thorough understanding and experience, Undoubtedly this is a reflection of the assistance of Sidney Olansky and Evan W. Thomas as acknowledged in the book.

William J. Brown, Chief of the Venereal Disease Branch of the Communicable Disease Center, in the foreword, calls attention to the reversal in 1955 of the decline of syphilis. Since 1958, the incidence of infectious early syphilis in many

communities has doubled each year, a though there has not been a parallel in crease in the number of reported case of gonorrhea.

One thing that can be done to reduce the resurgence of syphilis is to teach the basic facts of the disease to medical students and house staff. Each should have his own copy of this practical and inexpensive monograph. Even the consultant dermatologist may find a few "pearls" neatly arranged throughout the bookwhich to some will be a reminder of the good old days and books on syphilology.

To bring knowledge of syphilis up to date, the following excellent review of the subject is called to the attention of the readers: Beerman, H., et al.: Syphilis: Review of the Recent Literature, 1960-1961, Arch. Intern. Med. 109:123-344 (March) 1962.

HARVEY BLANK, M.D. Excerpted from Arch Derm 86:95 (July) 1962.

Space Medicine. By Ursula T. Slager, Prentice-Hall Space Technology Series. 388 p. Cloth. \$12. Prentice-Hall, Englewood Cliffs, N.J., 1982.

The author says her 18-chapter book has been "written for the aerospace engineer whose limited time does not permit him to collect and synthesize the diverse material now available, and for the busy physician . . ." a new field-The book is a collection of the known physical, physiological, and mathematical facts concerning man's reactions to the major stresses encountered in space flight. After each subject, i.e., pressure, temperature, the electromagnetic spectrum, acceleration, noise and vibration, weightlessness, and so forth, there is a brief description of the clinical illnesses. and pathological changes resultant from excessive exposure. These parts are well done. Toxicology is poorly done, and why the author omits anthropometric measurements and percentile cut-offs is not apparent.

The book is good as a reference and as a basis for studying so-called human engineering. What it does not do, and what the aerospace medical consultants must be prepared to do and to document, is to describe the limits of the total built-in environment within which the engineer must stay when designing hard-ware which will expose man to multiple stresses for varying periods of time in the very hostile environment of outer space There is a tremendous amount of useful information in the book, and we take of our hats to this lady for having under taken the labor of digging it all out and putting it in one place.

WILLIAM F. ASHE, M.D.

Ame Francis: History chronol graphic and art the med dentistr present during War. 8 8 W. 40

Dia 1 richtigu Bestimn mens. P diologic Amold bert J. l 1962

> Prvch bealth. the An troit, Mi can jou ciation,

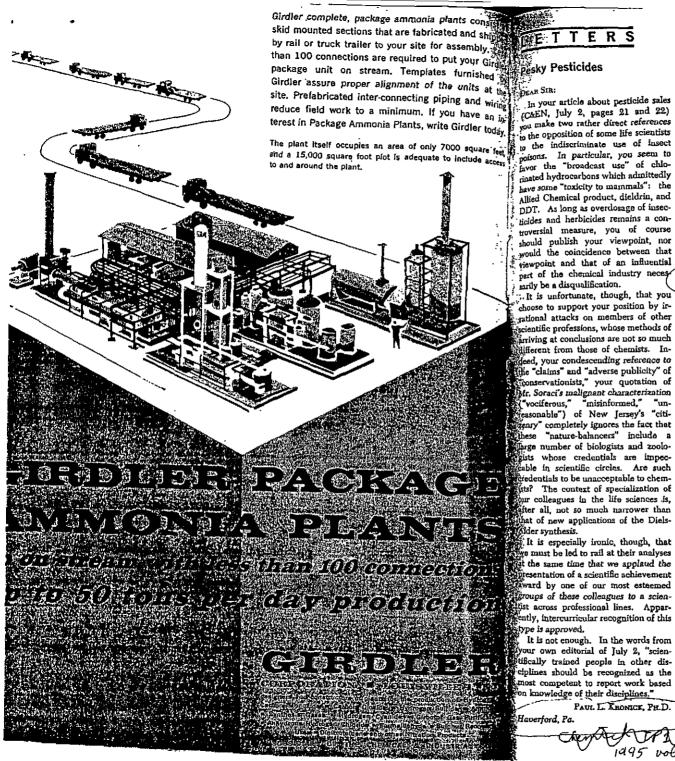
Vebe die Bed lichkeit und C Eero Re Hillbon Helsink The discuse.

inres. Royal

1961. and H Englan Epid Papers Organi land: Doco

27, 19

Dist A stri - Octio



OF TTERS

Pesky Pesticides

In your article about pesticide sales (CAEN, July 2, pages 21 and 22) you make two rather direct references in the opposition of some life scientists to the indiscriminate use of insect poisons. In particular, you seem to favor the "broadcast use" of chlomated hydrocarbons which admittedly have some "toxicity to mammals": the Allied Chemical product, dieldrin, and DDT. As long as overdosage of insecticides and herbicides remains a controversial measure, you of course should publish your viewpoint, nor would the coincidence between that viewpoint and that of an influential part of the chemical industry necessarily be a disqualification.

.. It is unfortunate, though, that you choose to support your position by irrational attacks on members of other scientific professions, whose methods of arriving at conclusions are not so much different from those of chemists. Indeed, your condescending reference to the "claims" and "adverse publicity" of a conservationists," your quotation of Mr. Soraci's malignant characterization ("vociferous," "misinformed," "unreasonable") of New Jersey's "citigenry" completely ignores the fact that lhese "nature-balancers" include a large number of biologists and zooloists whose credentials are impecafter all, not so much narrower than that of new applications of the Diels-

It is especially ironic, though, that ye must be led to rail at their analyses at the same time that we applaud the esentation of a scientific achievement ward by one of our most esteemed groups of these colleagues to a scienatust across professional lines. Apparently, intercurricular recognition of this type is approved.

It is not enough. In the words from most competent to report work based on knowledge of their disciplines."

PAUL L. KRONICK, PH.D.

Haverford, Pa.

DEAR SIR:

The series of three articles by Rachel Carson, concluded in the New Yorker of June 30, merit immediate and respectful recognition by our Society. If only a part of this terrible indictment by a distinguished biologist be the truth, the future of mankind is in great danger. .

It is sardonic that "Silent Springs" 's conclusion should coincide with "Pesticide Sales Pick Up," in the July 2 C&EN, with F. A. Soraci's arrogant dismissal of a "bird-loving unreasonable citizenry" unaware that "science" is sacrosanct.

G. V. CAESAR

Harbor Beach, Mich.

Eprroa's NOTE. The story on pesticide sales was designed to report concisely on that situation. The controversy over spraying against gypsy moths is of importance to that situation. The director of New Jersey's department of agriculture is an important figure in the matter discussed and his views are influential regardless of C&EN's agreement or disagreement with them. It is our editorial opinion that inclusion of Mr. Soraci's statement allows renders to deduce a great deal about the atmosphere of the gypsy moth spray campaign in the Northeast. Its inclusion was an act of reporting, not of endorsement. Beyond our view that it serves effectively the purposes of sound reporting, it should not be taken to indicate the views of C&EN. Certainly we had no intention of showing disrespect for the work of scientists in fields other than chemistry.

C&EN was unaware of the articles by Rachel Carson when its article on pesticide sales was planned; no coincidence was intended, and their objectives are obviously quite different. There seems little doubt the Carson articles will receive wide attention and may occasionally be subject to extended interpretations. Extremely careful reading of the facts, which appear to be carefully presented, and separation of these from implications of the interpretations are of greatest importance in the study of her articles. and particularly in discussing them.



. so CHICAGO'S ORGANICS, INC., uses BARNSTEAD STILLS Exclusively

When you specialize in custom work on parenterals for the nation's top pharmaceutical houses, purity is all-important. There's no room for "also-rana." "It can't be half-way or maybe," says Mr. Lawrence Hicks, founder and President of Chicago's Organics, Inc.

To produce pyrogen-free distilled water for his steroid hormones. Vitamin B-12 and Liver, Mr. Hicks depends on a new Barnstead Still with a capacity of 10 gph and two 50-gallon storage tanks. Installed in May, 1961, the new Barnstead Still replaced a 15-year-old, smaller Barnstead model.

Organics is delighted with the increased hourly production and greater storage capacity. There's always plenty of distilled water always on tap, Never any waiting.

Since its arrival, the new Barnstead Still has produced over 100,000 gallons of the purest distilled water obtainable without any maintenance — without the need of cleaning the Still. That's a record.

Let Barnstead work for you. There's over 200 different models and sizes. Barnstead engineering experience will help you select the right Still for your pure water needs. Write for catalogs today!

PURE WATER SPECIALISTS SINCE 1878

19 Lanesville Terrace, Boston 31, Mass.

JULY 16, 1962 C&EN 5