A Least Common Denominator in Antibiotics

By, Albert L. Wahl, M.D., C. M.
Mount Vision, New York

Given before state, national, and international medical groups in the early summer of 1947

INTRODUCTION

Doctor Albert L. Wahl, MD. C. M., of Mount Vision, New York, is well qualified as a physician, teacher and research worker.

After graduating from Concordia College in Bronxville, New York, he received a full scholarship to New York University, from which he graduated with the degree of Bachelor of Science. Because of his brilliant work in Biology, he was elected to Beta Lambda Sigma, Honor Society in Biology, and selected for the post of Teaching Fellow in Biology at New York University, a post that he held from 1929 to 1930.

Finding the scope of his interests broadening, he entered McGill University School of Medicine in 1930, graduating with the degrees of Doctor of Medicine and Master of Surgery. He practiced in New York State until the War, serving over a thousand square miles of hill country.

Entering the Army Air Forces, Doctor Wahl graduated from the School of Aviation Medicine, Randolph Field, Texas, in 1942, and was appointed Commanding Officer of the 168th Medical Detachment, Aviation Dispensary. In the capacity of Flight Surgeon, he served the 22nd Transport Group in its epic flights over the Hump from India to China.

His unit received the Presidential Citation. Retired because of combat injuries, he has devoted most of his time since the war to research problems.

Doctor Wahl is still a member of the Otsego County New York Medical Society, New York State Medical Society, the Montreal Medico-Chirurgical Society, the Pan-American Ophthalmological Society, and the Association of Military Surgeons of the United States. He is on the Medical Staff of the Fox Hospital, Oneonta, New York, and is the Surgeon for Post 1206, Veterans of Foreign Wars, Oneonta, New York.

Other contributions, which Doctor Wahl has made to medical research, have included papers on “The Function of the Gall Bladder”, and “The Psychological Aspects of Hare Lip and Cleft Palate”, published in the *McGill Medical Journal*. While yet an undergraduate at McGill, he was associated in research work for three years with Babkin and Dworkin, and, by invitation, presented a paper dealing with his researches on the nervous control of blood sugar metabolism

before the Montreal Physiological Society.

Dr. Wahl is also the author of a comprehensive instruction course in Wartime First Aid, which was used in Otsego County, New York, for the training of Air Raid Wardens.

In 1946, the author conducted extensive research on the effects of choline chloride upon the penetration and absorption factors of topical penicillin, and reported his findings before the Staff of Fox Hospital, Oneonta, New York.

PUBLISHER'S FOREWORD

The Lutheran Research Society considers the paper by Dr. Albert L. Wahl on "*A Least Common Denominator in Antibiotics*" one of the most important given in medical circles in recent years.

The Society feels privileged to be able to contribute this paper to an intelligent public, which has long been denied full details on the philosophy of health that deals with the oxidation mechanism. God desires all men to have in such abundance and that His natural immunity in each human body is fully realized and established.

We feel that this paper is a step forward in the right direction. We abhor and denounce with all of the vehemence at our disposal the monopolistic groups, which have denied the use of this healing chemistry to mankind for many years.

We are not unaware that criticism and discussion will result from the distribution of this paper. We can only ask in the name of suffering humanity that those so ready to condemn—and Dr. Wahl was one of those individuals a few years ago—take the time to investigate for themselves. The thankful hearts of those who benefit from the knowledge that these facts give, are a warm repayment for the time and effort expended in studying something that is new, yet old; tried, and successful. We gratefully thank those whose interest in this paper has made it possible to bring it to the attention of the professional citizens in America.

THE LUTHERAN RESEARCH SOCIETY
Detroit, Michigan
December 1947.

"Let us then blush, in this so ample and so wonderful field of nature, where performance still exceeds what is promised, to credit other men's traditions only, and thence come uncertain problems to spin out thorny and captious questions. Nature herself must be our advisor. The path she chalks must be our walk. For so, while we confer with our own eyes, and take our rise from meaner things to higher, we shall at length be received into her closet-secrets."

This from the preface to "*ANATOMICAL EXCERCITATIONS CONCERNING THE GENERATION OF LIVING CREATURES*", 1653, William Harvey.

This statement was true when William Harvey made it. It was true when Sir William Osler quoted it at McGill Medical School, October 1, 1894. It is true today.

It is true because the inherent humility of the statement transcends time. Humility and truth walk hand in hand.

“A certain temperament is required of the seeker after truth. It is the temperament, which combines veneration and receptivity. They, who would be disciples, must approach in a spirit of humble readiness to learn. We must not come to impose our own personal ideas, or even to get them verified. For the time being, we must suppress our own prejudices and surrender our own criticisms. To be truly humble is to have the sense of higher truth calling to us. It is to sit like a child on the shore of the Infinite, filled with awe and wonder and worship.

“Personally, I love the wisdom of antiquity. But I deplore and deny it the moment an attempt is made to use it as a chain to bind around my feet and mind. That is the paradox. Loving the old, I must yet express the new.”

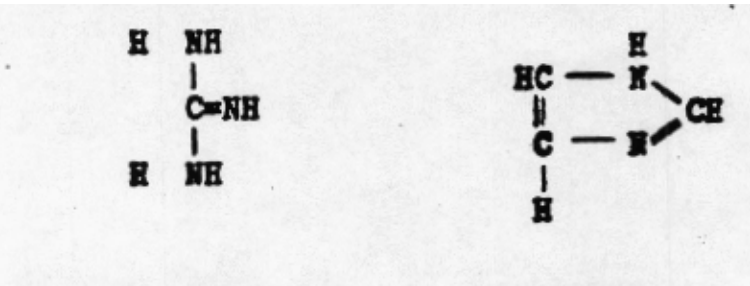
In the philosophy of Medicine, the last word has not been said. Nor, of course, is it presumed that the present writing encompasses the final dictum. But, in the words of the Old Testament, “God has worked a new thing”, and this “new thing” is substantiated by extensive clinical observation. And the facts as they are seen in the office and at the bedside press hard upon our present concepts, not only of clinical pathology, but of the chemistry of immunity, and clamor for a revision of our philosophy of medicine. Just as, in another sense, the advent of the sulphonamides, penicillin, and streptomycin has tended to break down the pigeon-hole variety of pharmacological practices common before their discovery, so now also, but in a yet more profound manner, do the facts observed in the clinic and office force upon us the urgent necessity of revising our isolationist principles of disease concepts. No longer is it possible to isolate, philosophically or practically, the acute infectious diseases, whether bacterial or virus in origin, the degenerative diseases, or even the neoplastic diseases. For observations made in the treatment of all these classes of apparently isolated pathological backgrounds, compel us to find some explanation for a basic relationship in view of the fact that well established examples of each of these classes have yielded to the exhibition of a single therapeutic agent.

The phenomena, which have been observed in this clinical research, have made the writer feel that he has never before practiced Medicine. Things have happened which were never believed possible, and which he at least never dreamed of seeing in his professional lifetime. The most startling element is the utter simplicity of the method of treatment, from which have resulted unorthodox results in so-called incurable diseases. And yet just as all doctors do not make good surgeons, so many physicians, either because of lack of adequate training in a wide field of chemistry, or because of ineptitude for this type of work, may not succeed with it.

This is, of course, not a complete or final report. It is possibly, by some standards, not even an adequate preliminary report. However, unusually beneficial results which have been seen make it imperative no longer to continue this clinical research without publication of a report. The facts as they are understood to date must be brought to the attention of the profession at large, that they also may share the experiences of the author, and that they may, by their active participation

in clinical research, help to accumulate a library of evidence which may tend further to elucidate these observable results.

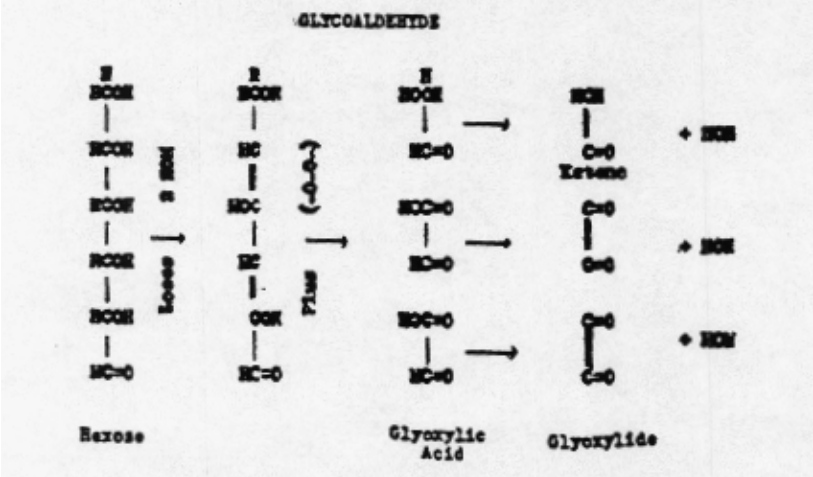
Poisons containing guanidine and imidazole groups, toxic nucleoproteins and polymerized toxic molecules, accumulate when the oxidation facilities of the body are seriously impaired, so a method was sought to oxidize them harmlessly within the body. For this purpose, an oxidation mechanism normal to the body was employed.



GUANIDINE **IMIDAZOLE**

The method of attack chosen was the application of the mechanism of direct oxidation of sugar and fat to the burning of these pathogenic poisons whose origin is believed located in residual focal infections.

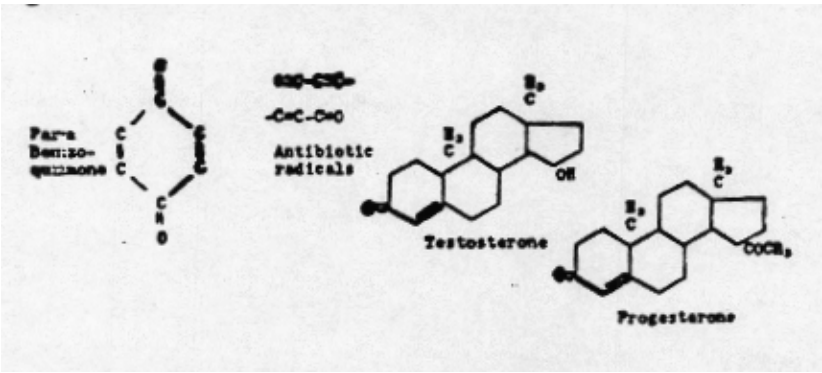
In order to bring the oxidations involved within the field of biochemical catalysts the breakdown of glucose and fructose was outlined as accomplished by dehydrations, with the formation of double bonds between carbon atoms and the production of conjugated systems of carbonyl and ethylene groups.



It is in accord with the newly established auto-induced oxidation processes of the tissues since it provides the chemical structures required for such processes. Since the more active of the structures so produced cannot be handled practically, they had to be reproduced in molecules that could be used practically, while still preserving their effective structure.

The most unimpeded practical unsaturated structure that could be produced synthetically with double bonds between carbon atoms conjugated with carbonyl happens to be 1:4 Benzoquinone, or parabenzoquinone. Parabenzoquinone is, therefore, the first synthetic antitoxin that is able to operate on this biochemical basis.

Benzoquinone is not only the first antibiotic but also it contains the antibiotic radical common to most of the antibiotics known, and Benzoquinone contains it twice and nothing else. It has no inhibitory radical. This vital radical is present also in the anti-carcinogenic substances testosterone and progesterone.

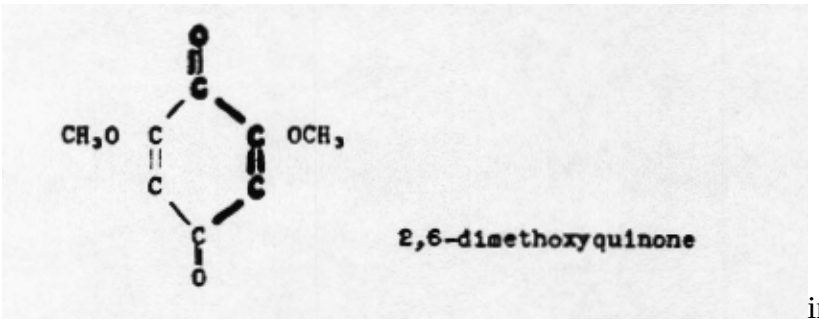


Fieser, Professor of Chemistry at Harvard, states in his 1944 *Textbook on Chemistry*, p. 1041, "Benzoquinone is a powerful antibacterial."

Practically all of the naturally occurring antibiotics discovered are now found to be modified forms of Benzoquinone. Thus Fieser states, "A third substance that shows P0TENT antibacterial activity is the yellow quinone 'fumigatin.' Its activity is not without parallel, since p-benzoquinone itself is a potent antibacterial." All or practically all other antibiotics are likewise quinones such as citrinin, pyocyanine, clavicine, spinulosin, the split quinone penicillic acid, and a number of synthetic quinones as kojic acid, acrylophenone, phorone, idalone, dehydracetic acid, etc.

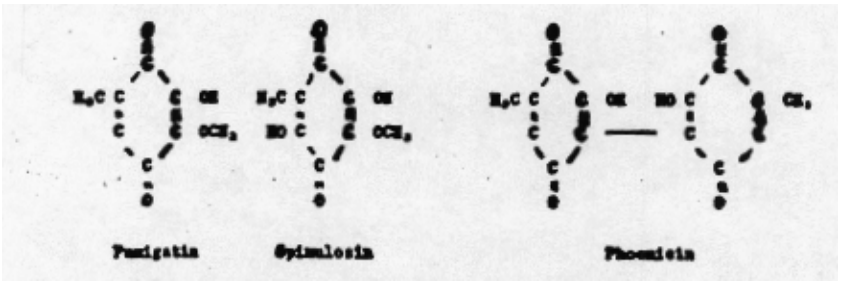
"A considerable number of pigments characterized as quinones have been isolated from high and lower plants, and a few members of the series have been found in animal organisms. A further point of interest is that certain of the natural quinone pigments have been found to possess significant biological activity. Members of the group have been identified as the active principles of long-known drugs employed in medicine as anthelmintics and purgatives. Recently, interest in natural quinones has been stimulated by the discovery that the therapeutically valuable antihemorrhagic vitamin K factors derived from green vegetables and from bacteria belong to this series, and by the discovery of a remarkable physiological function of the Echinochrome pigments of sea urchin eggs, as described later."

The simplest known natural pigment of the series is a 2. 6-dimethoxyquinone, isolated in small amounts from Adonis vernalis L. (W. Karrer, 1930).



in recent tests in vitro this quinone has been found to be a powerful inhibitor of the growth of Staphylococcus Aureus (Oxford 1942.)

"Related quinones have been discovered as mold pigments (Raistrick, 1938). FUMIGATIN, of the structure shown in the formula, has been isolated along with the corresponding hydroquinone from cultures of the mold Aspergillus fumigatus Fresenius grown on a nutrient medium; the related compound SPINULOSIN has been obtained from the same source and also from Penicillium spinulosum Thom. The isolation in the first instance of the quinone and hydroquinone under conditions indicating the presence of both substances in the growing mold is regarded as an indication that the oxidation-reduction system functions in the vital processes of the organism. Spinulosin is the hydroxy derivative of fumigatin."



NEWSWEEK, June 2, 1947, page 50, reports that biochemists at St. Louis University School of Medicine have finally produced an ounce of pure, crystalline fumigatin, a powerful, relatively nontoxic antibiotic, which has long been mentioned as a possible treatment for tuberculosis, but the supply has been so limited that its value has never been proved.

And yet, as has been pointed out, the active radical of fumigatin is —C=C---C=O. Although this radical occurs twice in fumigatin, one of the two is inhibited by a hydroxyl group, which lowers its efficiency.

But this same radical,—C=C—C=O, appears twice—UNINHIBITED—in parabenzoquinone, and parabenzoquinone has been very plentiful indeed for many years, as has also been abundant clinical evidence that the exhibition of the conjugated system of carbonyl and ethylene linkages does cure tuberculosis, permanently, and even in advanced stages.

***NEWSWEEK* is right in reporting such research as news of great interest to all Americans, for such research points up the fact that American Medicine is over twenty-five years late in allowing the lessons of the laboratory to reach the office and the bedside.**

There is evidence that this delay has been deliberate, and calculated to further the ends of a criminally selfish power group. This group holds organized medicine in literal bondage.

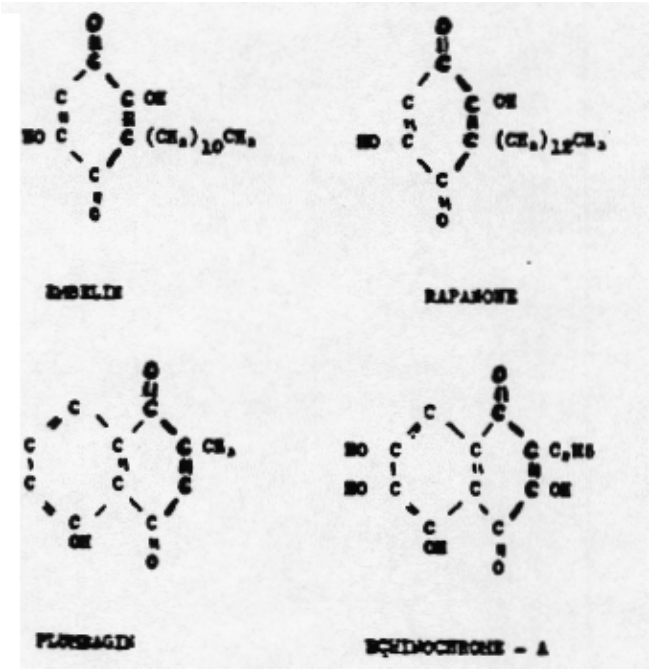
In this land of "Freedom" and "Free Speech", doctors, of all people, are not free. They dare not report any and all of their findings, no matter how many lives would be saved.

The facts reported in *NEWSWEEK* were news twenty-five years ago. They would have saved lives—millions of lives.

Facts like these are a knell. Send not out to see for whom the bell tolls. It tolls for us, Doctors.

"Another natural pigment structurally related to these two substances is the di-benzoquinone PHOENICIN, isolated from Penicillium phoeniceum van Beyma. Phoenicin has been found capable of increasing the respiration of washed un-pigmented cells of Bacillus pyocyaneus by as much as 200-300%, even at very low concentrations, and may function as a catalyst for the respiratory process by virtue of the reversible oxidation-reduction system formed with the hydroquinone.

"Hydroxybenzoquinones with long-chain alkyl groups also have been encountered. EMBELIN, shown to have the structure of a 2,5-dihydroxy-3-undecyl-1,4-benzoquinone, is found in the berries of the Indian shrub Embelia ribes, and has found use in medicine as an anthelmintic. RAPANONE, a higher homologue having two additional methylene groups in the alkyl chain, occurs in Rapanea Maximowiczii, and possesses a strong anthelmintic action."



“Two mono-hydroxy derivatives of 2-methyl-1,4-naphthoquinone have been isolated from natural sources. PLUMBAGIN, shown by syntheses to be the 5-hydroxy isomer, was known in a fairly pure form as early as 1828 and is the active principle of Chita, a drug of medicinal value obtained from India shrubs of various Plumbago species.”

“ECHINOCHBOME A: —This pigment of sea urchin eggs is of particular interest because of a remarkable biological function.

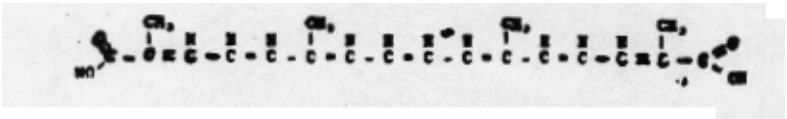
“Echinochrome A, apparently one of several related pigments of sea urchin eggs, was isolated from Arbacia pustulosa in astonishingly large amounts; for example, a single ovary at the time of full maturity affords over 10 mg. of crystalline dye. The substance functions on a chemotactic principle and is secreted by the egg to the surrounding sea water to induce motility in spermatozoa with which it comes in contact; the pure quinone shows biological activity at dilutions as high as 1:2,000,000. Kuhn has suggested that the pigment, functioning in a manner analogous to a hormone released into the blood stream to exert an action at a distant site, may activate the spermatozoon and cause it to migrate to the egg, with resulting fertilization, by virtue of energy transmitted by an oxidation-reduction reaction.”

***The Journal of the American Medical Association*, Volume 118, Number 16, page 1373, states of homeopathic 6x (1:1,000,000) dilutions; —“Chemical analysis shows that the dilution is so infinitesimal that it would be like dumping a cocktail in the Detroit River and expecting to get a kick out of the water going over Niagara Falls.”**

And yet Doctor Fieser of Harvard University, writing on penicillin in his book, *“ORGANIC CHEMISTRY”*, in 1944, states, on page 1040:

“One group (of workers) has isolated material that is active against hemolytic streptococci at a dilution of 1:32,000,000. Another group reports preparation of material that completely inhibits Staphylococcus Aureus at a dilution of 1:30,000,000.”

And Professor Gilbert M. Smith, working at Stanford University, is reported in the February, 1947 issue of *SCIENCE ILLUSTRATED* to have effected a metamorphosis of the cells of a microscopic plant from the sessile, asexual phase, to the actively motile, mate-seeking sexual cells, by the exhibition of one part of crocetin in 250 TRILLION parts of water.



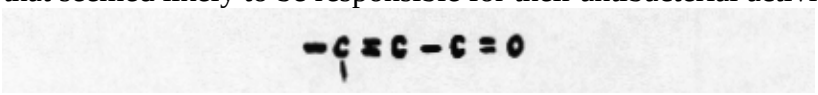
CROCETIN

It is obvious, then, that the above remarks quoted from the *J.A.M.A.*, and similar remarks, are not only unscientific and groundless, but are directly contrary to the everyday experience of physicians, and to the published evidence of recognized and highly qualified investigators, as to

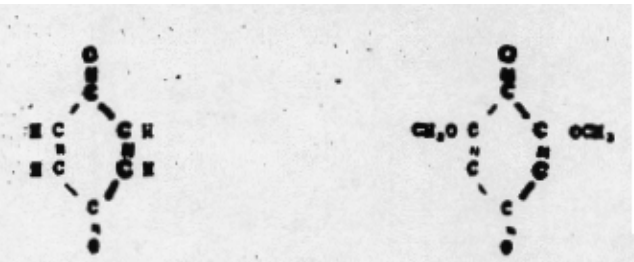
the efficacy of catalytic dilutions in producing measurable physiological effects.

At this point I should like to point out the occurrence of the Least Common Denominator of most of the antibiotics; namely, the conjugated system of carbonyl and ethylene groups (O=C—C=C—). Most of these have already been mentioned, earlier in this paper. Now I should like to group them and indicate graphically the occurrence of carbonyl and ethylene linkages as pointed out by Geiger and Conn in penicillic acid and clavacin. These workers, however, failed to press their observations to the ultimate inevitable conclusion.

Geiger and Conn, working at the State of New Jersey Agricultural Experimental Station, Rutger's University and the University of Iowa, published in January 1945, *Journal A.C.S.*, Vol. 67. The following statements on page 113, "The bacteriostatic and fungistatic activities of the unsaturated ketones were determined by the agar plate streak method." And "Properly constituted synthetic unsaturated ketones should show antibacterial activity comparable to that of the natural antibiotic agents." Also "In the course of chemical studies of the structure of clavacin, our attention was directed to a structural feature, common to both penicillic acid and clavacin, that seemed likely to be responsible for their antibacterial activity; namely, the group.

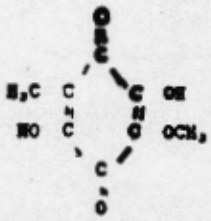


Moreover, this part of the molecule is the only structural detail common to both substances. The observation that drew attention to this grouping was the fact that clavacin is inactivated by sulfydryl compounds such as cysteine or thioglycolate."

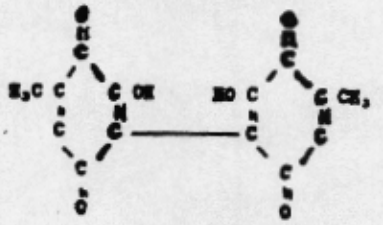


PARABENZOQUINONE

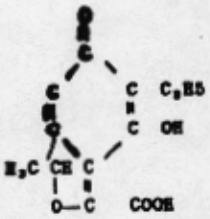
2-6 DIMETHOXYQUINONE



SPINULOSIN

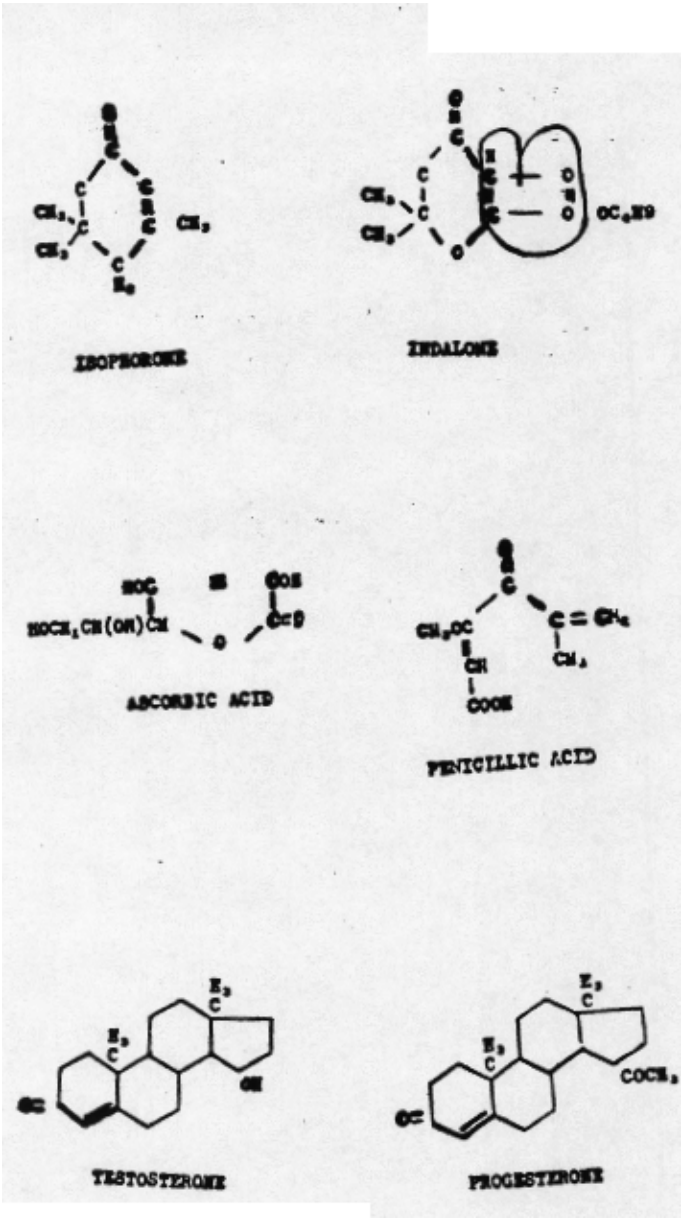


PHOMICIN



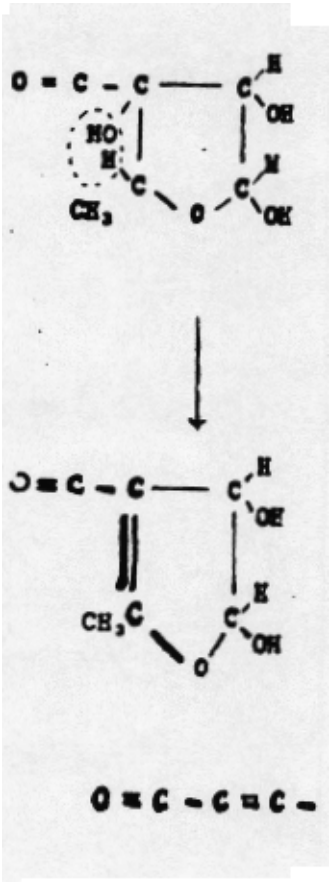
CITRININ

CLAVACIN



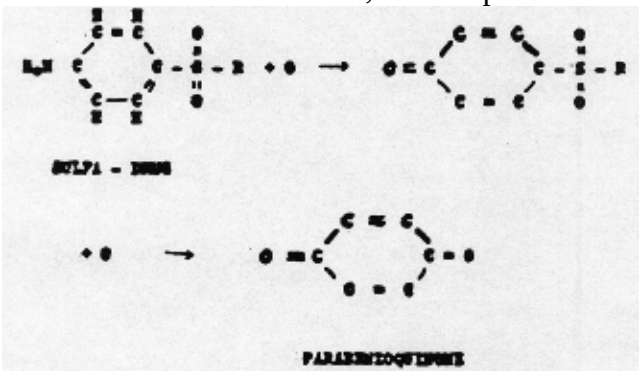
The active derivative of streptomycin is thought to be the di-aldehyde-sugar, STREPTOSE,

which, by losing one molecule of water, yields a system of carbonyl-ethylene linkages.



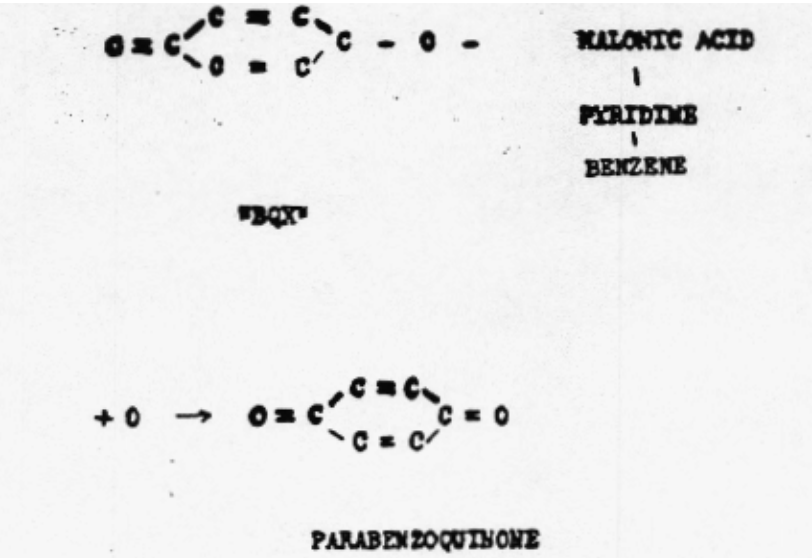
The action of the Sulfonamides is thought to depend upon whether or not the patient's oxidations are still active enough to burn off the ammo group, the sulfonic acid group, and the other characterizing group, and oxidize the benzene ring to 1:4 Benzoquinone.

If the tissue vitality is sufficient for this, traces of benzoquinone are formed that are handicapped by the other products and by the great mass of the sulfonamide present. However, enough of the Benzoquinone may be produced to serve curatively. But if the vitality is too low for this, the oxidations are overwhelmed, and the patient succumbs to the drug and the disease toxins.



MAGAZINE DIGEST of March 1, 1947, speaks of Benzoquinone therapy, BQX, as outdoing

Penicillin, and curing undulant fever in a few hours. The conjugated system of carbonyl and ethylene is the active radical in this BQ compound.

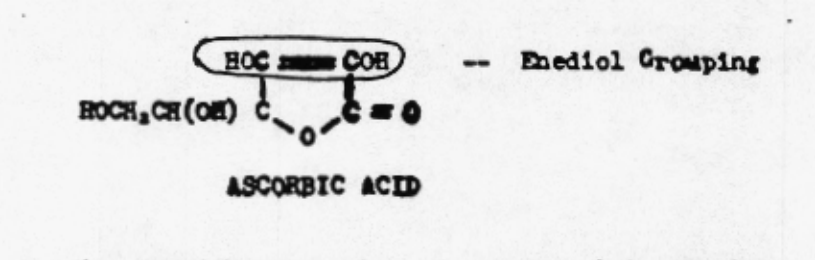


Benzoquinone is made up carbonyl and ethylene groups resent the most effective form of the conjugated system of taken twice and should represent the most effective form of the arrangement.

When parabenzoquinone was employed in high dilution as a catalyst for treatment of the allergies it worked very efficiently, and the recoveries followed the same program as the recoveries secured in other diseases. Therefore, it became possible to outline allergy production on a photochemical basis. It seems that allergenesis can possibly be explained as a matter of energy transfer accomplished by the fluorescence of the allergenic substance. The energy of the exothermic reactions going on in the cells is transferred into the chemical processes of such functional units as are able to accept such energy. The specificity of energy acceptance resides in the similarity of energy emission range end energy absorption range of the fluorescent substance and the functional unit. The energy accepted passes into and boosts the chemical processes and activities of one or more of the functional units. And so the contractile, secretory, reproductive, or conductive units are forced to function beyond physiological control, producing for instance the bronchial spasms and hyper-secretion of asthma.

The statement that the conjugated systems of carbonyl and ethylene are the essential structures for antibiotic activity and that they secure this activity through auto-induced oxidation processes is now confirmed, not only as against bacteria, but also against cancer causing poisons of known structure that are standard knowledge today. **Warren of the Cancer Hospital of London has shown that the conjugated system of carbonyl and ethylene, by induced oxidation, destroyed the well-known synthetic carcinogens. In the *Biological Journal,* Vol. 37, p. 338, he states, "It has long been known that oxidation of the aromatic hydrocarbons plays a fundamental part in their elimination from the animal body, but isolation of the, products excreted has contributed little to knowledge of the initial introduction of oxygen into the molecule."** This problem has assumed even greater importance recently in connection with the fate of carcinogenic hydrocarbons in the animal body. Many such hydrocarbons are now known

and, in most cases, introduction of oxygen into the molecule leads to considerable or complete loss of carcinogenic activity. Thus, in these carcinogens, oxidation is equivalent to 'detoxification' from the point of view of cancer induction.



"These results indicate that the enediol grouping of ascorbic acid was the essential structural requirement for bringing about the oxidation of the hydrocarbon. Support for this view was obtained in experiments in which ascorbic acid was replaced by dihydroxymaleic acid. Exactly similar oxidations of hydrocarbons were obtained by the use of this acid in aqueous acetone solution."

The enediol group is only 1/2 of the conjugated system of carbonyl and ethylene, which is the active grouping in Benzoquinone and these are the same atomic arrangements as occur in the quinones and penicillic acid reported on by Geiger and Conn, Fieser and Fieser.

It is further pointed out that the conjugated system of carbonyl and ethylene is present in certain substances of the body that protect against cancer and thus contribute to the chemistry of natural immunity; namely, testosterone and progesterone. This is verified by one of America's foremost cancer authorities, Doctor Adair of New York. Adair, published in the *Annals of Surgery,* Volume 1023, page 123, 1946, and *VICTOR NEWS,* reporting in April 1947, states:

"Of eleven patients treated, four exhibited favorable response without toxic effects in those having normal serum calcium levels. Evidence of improvement was the regression of the primary lesion and soft part metastases in three cases. Disappearance of pain coincided with osteoblastic changes."

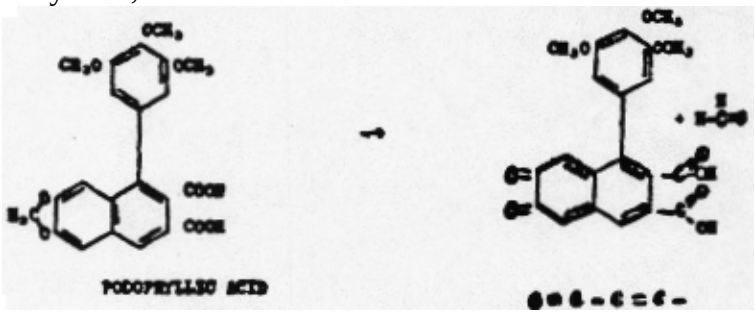
But there is reason to believe that testosterone is far less effective than Benzoquinone because testosterone contains only one conjugated system of carbonyl and ethylene linkages, whereas Benzoquinone contains two such linkages, and nothing else, which would inhibit the action of these vital radicals (O=C—C=C). This group is a powerful auto-oxidant catalytically capable of inducing the destructive oxidation of many pathogenic toxins.

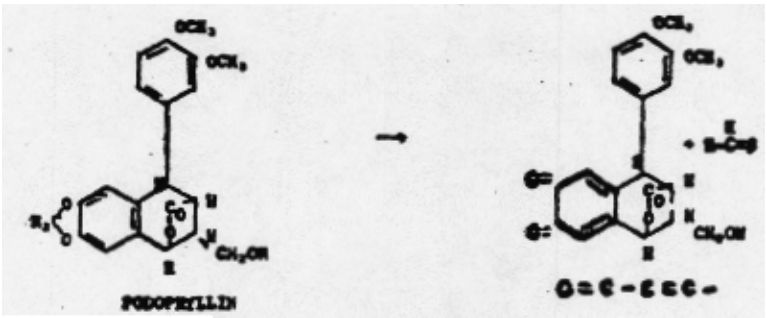
Doctor William J. Hale of the Dow Chemical Company, Midland, Michigan, in personal communication, informed me that Doctors Richard A. Ormsbee and Ivor Cornman of the Sloan-Kettering Foundation have just reported on the power of podophyllin to destroy cancer tissue. This was confirmed at Manhattan's Memorial. These researchers are said to make the statement that they do not know what "chemical" in podophyllin is responsible. This report is confirmed in *TIME,* June 2, 1947, page 74, where it is also stated that podophyllin has been used successfully

in mouse cancer. The article goes on: “PODOPHYLLIN cannot be used on cancer patients until someone isolates its cancer-killing element and separates that from the rest. In any sizable quantity, the root is poisonous.”

But it would seem obvious to credit this anti-carcinogenic action to a radical common both to testosterone, which Adair and others have shown to be neoantagonistic, and to podophyllin, the group that is a powerful autoxidant capable of inducing destructive oxidation of the carcinogen that keeps the cancer cell going.

Examination of the formulae of podophyllin and pedophiliac acid shows that, by addition of oxygen, both will yield not only formaldehyde, with its active carbonyl group, but also two conjugated systems of carbonyl-ethylene linkages from the orthoquinone. In addition, pedophiliac acid, in the presence of water, will yield two somewhat inhibited, (on account of the hydroxyl group), but nonetheless important and active carbonyl-ethylene linkages from the anhydride,





I reported in “*Modern Medicine*” March 1, 1947 in a forum discussion with Jacob Furth, M.D., Pathologist of Cornell Medical School, that I had treated 117 cases with parabenzoquinone. This report brought a request among many others from a physician in Waltersboro, South Carolina, for some material for treatment of a girl dying of acute lymphatic leukemia, An Army plane was flown to secure the treatment. It was given to them ready to use and flown to South Carolina where it was administered at 4 a.m. The girl was supposed to die

around 7 a.m. on March 25, 1947. She was in the terminal stage of this rapidly fatal disease. The trend of the disease was reversed. The physician in charge of the case was impressed with the rapid decrease in myeloblasts and myelocytes, and also by the fact that the hemoglobin showed some increase. By May 27, 1947, the sedimentation rate was normal. On June 3, 1947, the doctor in charge wrote as follows: "I'm convinced that the medication did alter the course in this case regardless of the future. The parents are very grateful and feel that it very definitely helped." On July 6, 1947, he wrote, "My case of Myeloid Leukemia died recently with massive intestinal hemorrhage. I wish to express my appreciation for the kind aid you gave to this case and still feel that the medication retarded the course of the disease."

Many such children are dying daily because their doctors think this treatment is a fraud. It is believed that, could this therapy be made available early in the course of these conditions, instead of being used mainly in the "given-ups," brilliant results might be obtained.

Men are going about this country telling that this substance is being given to cows with mastitis with fatal results. But even your laymen now read in *Magazine Digest*, March 1947 that over 10,000 cows in France were treated with practically 100% cures. Are French cows more co-operative? The truth is that the treatment has been given to hundreds of cows in a three-year study by the Ministry of Agriculture of the Government of British Columbia with remarkable curative, end not in any *i*nstance with fatal, results. Subsequent figures indicate that about 30,000 cows have been treated to date without a single fatality. In fact, no other treatment has been able to give as good results any where, since as high as 96% of the mastitis-infected quarters under treatment recovered. The best that could be expected otherwise is 20% recovery with the tendency to recurrence at the following lactation. The cases treated by this compound remained free from recurrence almost entirely, or entirely. The results were confirmed by a three-year study, and official reports are available.

Dr. J. J. Reid at an experimental station in Texas has used the treatment in a 100% incurable disease among horses, swamp fever, and his recovery rate in different epidemics has been from 96% to 100% on one treatment as a rule. This includes all cases no matter how close to death at the time of treatment.

When parabenzoquinone was given in catalytic doses to the patients suffering from acute infections, the response was rapid. The chronic infections also responded: The longer the infection bad been established, the longer time was required for recovery. The recovery mechanism follows a cyclical course, as does also the pathogenesis of chronic disease.

Dr. Douglas Webster, radiologist of the Middlesex Hospital, London, has been able to predict the time of return of epidemics (Influenza, etc.) because they follow this periodicity law which be verified also in his investigation of the periodical recurrences of cancer. In a study of many thousands of cases covering many years, Webster found that cancer invariably returned after operation or irradiation, either at a periodicity of thirty-three weeks or half thirty-three weeks. So accurate is this phenomenon that he could predict the death of patients very closely.

This same type of cyclical activity is seen also in the recovery process following the use of parabenzoquinone. *Thus the periodicity features of disease are cosmic phenomena ultimately.*

Before I present my case reports, allow me to state that these are in the nature of a personal report on an independent investigation, and are included as a matter of record of this investigation. **They are in no way intended or expected to convince anyone of the truth of what has been said no more than I personally was convinced by the mass of clinical data available on this treatment, until it touched a member of my own family, and my heart constrained my eyes to see.**

The usual reaction of physicians who are willing to indulge in the dubious intellectual luxury of condemnation without investigation of which I myself was formerly guilty is, that if the patients get better, they either didn't have the disease, or they are neurotics; if they do not improve, the medication is no good; if they die, the medicine killed them.

May I say hypothetically that if this is merely a cure for neurotics, it should be welcomed; for by what other method available is it possible to give a neurotic one treatment, and send him out into the world a happy and rehabilitated person?

If there should happen to be any who depend upon repeat visits from their neurotic patients to pay their grocery bills, this will hold no instant appeal.

But if my observations record the working of a great truth, that truth will eventually be recognized generally and accepted.

And the only way any physician is likely to be convinced of that truth is by taking the time to study the method, and become expert in its use in his own practice and under his own eyes. He will no longer then hold an opinion; he will himself then be held and gripped by the conviction that "there is more twixt heaven and earth than is dreamed of in our philosophies."

Many doctors have given worthwhile service to the sufferers from cancer, infections and allergies by using this or a similar compound, and have so testified.

Over a year ago, my sister was dying of lymphosarcoma, a disease that the profession regards as invariably fatal. The diagnosis was made by Doctor H. H. Permar of Mercy Hospital, Pittsburgh, Pennsylvania, on the basis of biopsy study, No. 1171, May 1, '46. The medical staff of Mercy Hospital had previously made a diagnosis of lymphosarcoma or Hodgkin's disease. The case was far advanced at the time, my sister having been practically bedridden for six months because of weakness and recurrent infections. The masses of lymphoid tissue did not have to be palpated; they stood out on the sides of her neck and in her axilla and groins like bunches of grapes mixed with walnuts.

When the diagnosis of lymphosarcoma had been made, and I had received written commiseration from a top ranking staff member of Mercy Hospital, it never occurred to me to do other than offer my sister the straw hope of deep X-ray therapy. Everyone who examined her thought she would be dead within a few weeks,

"I refused to listen to my Father's recommendations that my sister be treated with a

substance built up from the conjugated systems of carbonyl and ethylene linkages. Because of American Medical Association propaganda, I believed that the results previously reported with this therapy " 'approached the acme of quackery.'"

"However, my Father did have my sister treated, since he personally knew of cases of cancer which were cured and remained cured after its use. This type of cancer is fatal in three to six months, as a rule. My sister was in the last stages, and was said to have only a few weeks to live, according to the best knowledge on the subject. *She recovered after one dose in characteristic fashion."*

"Then and there, I decided to undertake an independent investigation of the treatment. I have been using parabenzoquinone purified, diluted and administered according to the approved method. And, as evidenced by my case reports covering a wide variety of what is usually considered pigeonhole pathology, I have been irrevocably convinced of the great value of this treatment."

The American Medical Association is not yet convinced after twenty-five years. But that is an old story.

Gordon S. Seagrave, M.D., of international fame, writes in "*THE BURMA SURGEON RETURNS*", pages 44, if about brilliant results achieved under his command with another drug—a "quack" remedy if you will and goes on to say:

"Specialists do not think well of it, and refuse to give it a trial. But Gurney's results were so undeniable that Colonel Williams authorized the medical supply officer to purchase the drug from Government funds... It may be unethical to use a drug not yet passed on favorably by the American or British Medical Associations. But Gurney obtained such extraordinary results that I was willing to stand court-martial any day for approving its use."

I met Colonel Seagrave in Assam during the War. As Flight Surgeon and Commanding Officer of the Aviation Dispensary, which served the 22nd Transport Group operating over the hump from India to China, I was in a position to appreciate the monumental contribution of Doctor Gordon Seagrave to our efforts in the CBI Theatre, and I have the greatest respect for his judgment and opinion.

In 1942, the American Medical Association in editorial fashion took credit for intense activity directed against the presentation and acceptance of the facts stated in regard to Benzoquinone or BQ, and, in Volume 118, No. 16, p. 1373, glowed with pride at having been instrumental in causing large sums of money to be squandered by the Department of Justice in a shameful witch-hunt directed against the teaching of this truth. So great was their influence with the Department of Justice that they were able again in 1946 to foment another organized persecution lasting five months and costing the peoples of the United States vast sums. They claim credit for causing the arrest of an eminent physician and scientist, who had discovered the biological importance of the conjugated system of carbonyl and ethylene groups some twenty-five years ago, and who presumed to make this discovery the keystone of a new philosophy of clinical pathology and the art of medical practice.

And this certain power group within organized medicine is not yet big enough to admit they have been wrong. As of the first part of May, 1947, this group had a representative in Washington in the person of a certain physiologist, J. A. Carlson, lobbying for yet another attack by the Department of Justice, with public funds, against this physician for daring still to believe that his work is grounded in truth.

But if the truth is dressed up with romance, as in *MAGAZINE DIGEST*, March first, 1947, page 110, and brought in from France, it is a face saving arrangement and a sound financial venture for somebody, with official licenses and export permits duly issued.

In March 1947, *MAGAZINE DIGEST* was satisfied editorially and with alacrity, after a few days' checkup with French medical authorities that the claims said to have been made by Doctor Paul Frixon regarding the efficacy of BQX are true.

But a certain power group within organized medicine has sedulously campaigned for years with public funds to suppress knowledge about BQ (parabenzoquinone), and persecuted those who tried to disseminate knowledge concerning it. *MAGAZINE DIGEST* now praises to the skies the purportedly French product, BQX, the active radical of which is BQ, or parabenzoquinone, and calls it "The World's Newest Wonder Drug!" which "outdoes penicillin."

It is physically impossible to blow hot and cold at the same time. If BQ works in France, it works in the United States, in Canada and in Brazil. And I submit that if it is good enough for use in French hospitals to save the lives of French children in 1947, it was good enough to have been used in the United States for the past twenty-five years to save the lives of American children.

MAGAZINE DIGEST states that BQX cures influenza in twelve hours, controls blood poisoning in four hours, clears up malignant infantile diarrhea in two hours, cures certain types of paralysis, cures typhus, causes rapid healing of wounds and sores, even under dirty bandages; cures pneumonia; states that it may cure syphilis and tuberculosis; that it is saving hundreds of French children yearly who would otherwise die of gastroenteritis; that it cures undulant fever in a few hours, and is probably effective in mumps and typhoid fever and that OFFICIAL LICENSES AND EXPORT PERMITS WILL SOON BE ISSUED.

And yet, when BQ was freely offered by its discoverer at the beginning of this past War to the United States War Department for the benefit of the men who are now in the Veterans of Foreign Wars or the American Legion, if they were fortunate enough to come back, and for the benefit of many who might have come back, with its miraculous help, IT WAS TURNED DOWN!

It was offered in 1937 to Surgeon General Parron for use in the leprosy cases at Carville, AND WAS TURNED DOWN! (During the Koch Trials, testimony was elicited from a prosecution witness, which was later proven to be perjury.)

At the end of July 1943, it was again offered to Surgeon General Kirk and to Rear Admiral Sheldon, who was the Assistant Surgeon General of the Navy, and to Doctor Griffith, the head of the Veteran's Administration, as the weapon of choice in the treatment of amebic dysentery, typhoid fever, malaria, typhus, wound infections, influenza, pneumonia, blood poisoning, and gastrointestinal infections. **AND IT WAS POLITELY TURNED DOWN** because this certain

power group within organized medicine had not only failed to conduct a fair and un-falsified investigation of BQ in the United States, but had actively fought such an investigation by any member of the medical profession, and had actively persecuted, with public funds, the physician who first in all the world announced its value to humanity. But when export licenses are duly issued—and paid for— the long-suffering people of these United States will be allowed to have the benefit of "the miracle drug of 1947," a medication which was first offered to them through the medical profession by its discoverer in 1922.

It is unthinkable that any physician or physicians could ever so betray trust for personal gain that they would cause an injunction to be fostered and maintained against a scientist, enjoining him from publishing such good news, while official permits and export licenses were being arranged for the introduction of a copy, far inferior, but commercially controlled, from another country.

It is unthinkable, but it seems to be true.

"For twenty-five years, every man, woman and child in these United States has been in bondage. They have been led through the valley of the shadows, or sold down the river. How many more must die before we act? One man, 'with a courage and bravery born of conviction and vision, has been standing our ground for us at the Pass of Thermopole.'

When will we arouse to the alarm and protect the birthright of our sons and daughters? Abraham Lincoln said, " I always plant a rose where I think a rose will grow." **The recognition of the conjugated system of carbonyl and ethylene groups as the Least Common Denominator of most of the antibiotics, whose formulae are known, shows good observation. But to have first predicated the value of this conjugated system, and developed it according to basic principles of chemistry and physiology, was nothing less than a stroke of genius.**

In the words of Doctor William J. Hale, chemist and pioneer chemurgist, and research consultant to the Dow Chemical Company of Midland, Michigan:

"DOCTOR WILLIAM FREDERICK KOCH is the MODERN PASTEUR!"

SUMMARY

Many departures, if not all, from normal physiology, are believed primarily due to a deficiency in the oxidation processes of the body, leading to the accumulation of fluorescent toxic molecules. These toxic structures would ordinarily be burned rapidly in a well functioning organism in which carbohydrate metabolism was normal. These toxins are fluorescent substances, which become absorbed into the colloidal system, and act as autoxidants. Also, because of their fluorescence, they are able to absorb the exothermic energy of cellular metabolism and re-radiate it in their own spectrum range into such functional units as are able to receive their specific spectrum radiation. These receiving units are stimulated therefore beyond physiological control.

Restoration of natural immunity hinges on re-establishment of normal oxidation, resulting in

restoration of normal carbohydrate metabolism. To that end the fluorescent autoxidant must be completely destroyed. This is accomplished by the establishment of a chain reaction, in which an oxidation catalyst—parabenzoquinone in homeopathic dilution—is the carrier of the reaction, and the fluorescent substances are the reactors. The conjugated systems of carbonyl and ethylene in parabenzoquinone undergo autoxidation, and induce autoxidation in ethylene linkages or N=C linkages of the fluorescent toxic substances. The introduction of oxygen into the molecular structure of the toxins is equivalent to detoxification. With the loss of fluorescence which results, the entire abnormal hyper-functioning system due to the re-radiation of exothermic cellular energy by the fluorescent substance naturally collapses. Thus the autoxidants are destroyed and their braking action on normal hexose oxidation is removed. **The result is a shift toward normal physiology.**

The conjugated system of carbonyl and ethylene linkages found in parabenzoquinone is believed to be the Least Common Denominator of most of the antibiotics. It is also present in vitamin C and K, and potentially in vitamin E, and is believed to be the active radical of these vitamins. It is also present in the naturally occurring anti-carcinogens, testosterone and progesterone, and is thought responsible for their anti-carcinogenic activity. This vital conjugated system of Carbonyl and ethylene groups has been shown to act as an oxidation catalyst, capable in vitro of inducing autoxidation of the commonly known carcinogens, anthracene and 3, 4 benzopyrene, thus destroying their ability to produce cancer. The same vital radical is believed responsible for the activity of streptomycin and the sulfa drugs.

The author has treated approximately two hundred and fifty cases with Parabenzoquinone 6x (1:1,000,000). Usually one 2 cc dose is all that is required. The age range of the patients is from 5½ months to 97 years including the acute and chronic infections, the allergies and arthropathies, glandular dyscrasia, leukemia, (with a related oxidation catalyst) Hodgkin's Disease, Raynaud's Disease with gangrene, and neoplasms. Results in all cases have been promising.

CASE REPORTS

I have treated over two hundred and fifty patients with Parabenzoquinone, 6x (1:1,000,000) solution; the youngest is five and one half months old; the oldest is ninety-seven. The cases included in this report are a representative group, with examples of acute and chronic infections, the allergies, the degenerative diseases and the neoplasms.

Furthermore, I have seen more "cures" of so called incurable conditions with this treatment in less than one year's time, than I had ever expected to see in my lifetime.

These cases also illustrate that the toxins, which cause cancer, are also operative in other conditions, which are manifestations of the pre-growth toxic phase of cancer. This statement is confirmed by a report in *TIME*, June 2, 1947, page 74, from Doctors Konrad Dobriner and Cornelius P. Rhoads of Manhattan's Memorial Hospital. After five years of extracting and peering, the doctors recently isolated a new, hormone-like substance, called "Compound 18", that appears in the urine of almost all cancer patients, and almost never in normal urine. The

report goes on to state:

" '18' may some day prove helpful in the detection of hidden internal cancer. One trouble is that 18 sometimes turns up in connection with various non-cancerous conditions, such as high blood pressure. But Dobriner and Rhoads found that in at least one case, (18) appeared some months before cancer developed. This suggested that the strange endocrine substance might have something to do with the very root of the mystery: cancer's cause."

This substance, (18), appears to be an unsaturated hydroxy compound of moderately high molecular weight, with a possible derivation by virus action from aromatic compounds, and possibly cholesterol and its related sex hormones. In at least one of its forms it contains nitrogen, it possesses conjugated systems of double bonds between carbon atoms, but no keto group; it has on interesting fluorescence thought responsible for its allergic action.

Doctors Dobriner and Rhoads, reporting in the *TIME* article, seem puzzled that they should meet up with this compound in conditions other than cancer. But its presence in the pre-growth toxic phases of cancer, manifested by high blood pressure, allergies, etc**., was pointed out in 1920 by Doctor W. F. Koch, in a meeting of the Cancer Society and subsequently published in *THE JOURNAL OF THE AMERICAN ASSOCIATION FOR MEDICAL PHYSICAL RESEARCH*, October 1925, where the following statement is found: "*Various symptoms arise which may precede the development of this growth for many years. These may range in severity from dizziness, temporary blind spells, headaches, neuritis, etc., to mental disturbances grave enough to be diagnosed as insanity. We call these the pre-growth symptoms since they let up in a high percentage of the cases with the appearance of the growth. Impairment of functions of the glands of internal secretion may also result in simple or toxic goiter, and adrenal insufficiency with pigmentation changes may follow. Moreover, senility changes and tissue degeneration may precede and accompany the growth."**

This paper has dealt with the destruction of this and other toxins by parabenzoquinone, not only in cases of malignant high blood pressure, but also in the acute and chronic infections; the degenerative diseases and arthropathies, the allergies, and the frank neoplastic states. Parabenzoquinone has been used in these cases in homeopathic 6x dilution. The Similia Law rests with the structure of the poison and the like structure of the remedy. The poisonous action is carried by the conjugated system of double bonds between carbon atoms, the autoxidant activity of which is increased by the attached hydroxyl. The remedy rests in the double bonds between carbon atoms activated through conjugation with Carbonyl.

Parabenzoquinone used in 1:10,000 dilution daily for over a year in animals produces four times as many growths as occur in control animals.

High dilution of Parabenzoquinone serves curatively.

Thus, the scientific law of Hahnemann is fulfilled.

The high dilution, the single dose, the retrace type of recovery pattern, similarity between the carcinogenic molecule and the therapeutic molecule and the ability of the therapeutic molecule to produce the disease when employed in a different potency, and administered

daily—all these facts seem to place this treatment substantially under the Law of Homeopathy.

(1) C. N. white female age 49.
First seen in 1941. CC: **Pott's Disease of spine**, with considerable incapacitating radiculitis, severe headaches. Auricular fibrillation. After other modalities had been tried, some relief was finally obtained from the radiculitis with potassium iodide iontophoresis to the spine, but no improvement was obtained at any time as far as the cardiac condition was concerned, by digitalis or aminophyllin.

Interval lapse during the war, during which the patient was under the care of another physician.

Past History: Measles at age 2. History of having fallen down a long flight of stairs when only a few months old; there was probably some spinal injury at that time, which opened the way for the subsequent acid-fast infection. Following the measles at age 2, attention was directed to some pathology in the spine. Following this, it was many years before the patient was able to walk at all, and then only by bending over and placing her hands on her knees for support. This mode of limited progression was employed around the house until the age of 8; the sisters took patient to school in a cart. During these years, much pain was experienced especially at night. By the age of 8, a definite kyphosis was in evidence. A brace was fitted, and the patient has worn braces constantly to date.

At the age of 12, a tuberculous abscess under the right shoulder blade appeared, and was drained surgically; it continued to drain for five months, finally healing over.

Because of the painful involvement of the spine, and the inability of the patient to sit still for any length of time, she was taken out of school at the age of 13.

At the age of 15 the patient was able to return to school to finish the seventh grade, but was never able to undertake any formal schooling after that time.

There was then a period from age 18 to 25, when some clinical improvement was noted, with some reduction of spine pain. During this time, the patient spent much time studying music, and was able to practice piano several hours daily.

At the age of 26, patient had a severe attack of influenza, which made a definite clinically noticeable imprint on her cardia. Cardiac pathology has been evident ever since that time, manifested at first by an extremely rapid heart irregularity in volume and in later years by a frank auricular fibrillation, uncontrolled by any usual modalities.

From 1934-36, there was a reactivation of the acid-fast pathology in the spine, and the patient was continually confined to bed for these two years in a plaster cast and since that time has been in bed at least six months out of every year.

At the age of 38, additional acid-fast pathology was discovered in the cervical spine. Attention

was drawn to this by intractable pain in this region with terrific headaches, and constant neuritis in the distribution of the superior and inferior alveolar nerves, and the facial nerves. Many tooth extractions were performed in an attempt to relieve this pain; the procedures only aggravated the discomfort. Attempt to read more than a few moments caused severe return of the neuralgic pain ever since that time, so that the patient, during the past fifteen years, has hardly been able to do any reading whatsoever. Even loud noises would set as a trigger to touch off an acute exacerbation of pain.

Since the age of 38, also, the patient had a progressive inability to use her arms for more than a few moments without inducing great fatigue and pain, and for this reason had to give up her piano work. The lower end of her spine had been so tender since then, also, that she was not able to sit down for the past nine years. Even use of her hands to write a letter, paint a card, or for some occupational therapy or hobby, caused a brisk and excruciating return of pain in face and head.

For a number of years, patient had been transported to Florida for the winter seasons, and spent most of the time there in bed. However, during recent years, she had become so incapacitated that such trips were no longer possible.

From 1940-44, patient has been continually confined to bed. She was in continual severe pain except when under influence of narcotics, and was unable to undertake any activity whatsoever. In 1944, an orthopedic surgeon made some adjustments on the patient's brace, which contributed greatly to her comfort by increasing her support, so that she was again able to be about the house for short periods. But the cardiac pathology did not yield, and pulse became rapid and irregular again; patient had repeated episodes of cardiac pain. Dyspnoea, vertigo, and was forced to return to complete bed rest. During the Spring and Summer of 1946, the heart attacks became more frequent, and more severe, to the point where often the pulse became imperceptible during the attacks. The physician on the case employed all the latest pharmacological modalities in an attempt to improve the heart action. But in spite of this, the point was reached in January 1947, when the physician decided the patient had to be hospitalized, but did not think she would survive the fifteen-mile ambulance trip. At that timed I was asked to examine the patient again, and to tender any assistance that seemed indicated.

It should be added to the history that on May 31, 1942 a paravertebral nerve block, dorsals V-XII was done for intractable spine pain.

JAN. 10, '47. PX Patient in bed, toxic, washed-out, morose, weak, apprehensive. BP 180/60/40. Pulse 90-120, irregular in rhythm and strength of beat. Blowing precordial murmur, systolic, diffuse, transmitted into the neck. The digitoxin and aminophyllin, which the patient has been taking for many months, was stopped immediately.
BQ 6x 2cc IM stat.

JAN. 10, '47. Patient felt better by the night of JAN. 12, '47, and has improved steadily ever since. Pulse 84, strong, regular. Color much improved. Patient is laughing and joking, and is free of pain.

JAN. 15, ‘47. Pulse very good; no fibrillation; still an occasional extra-systole, and on occasion dropped beat BP 140 8C. Morale excellent, color improving. States that she has occasional pain in back.

MAY 24, ‘47. When I stopped at the house to check on the patient. I found her in the garden, working in the flowerbed. She had been there for a half-hour without discomfort, and was enjoying herself. Pulse after this exercise was regular in volume and rhythm. BP 158/96 and pulse 84 immediately after this exertion. She states that she has been able to play the piano again since March for the first time in twelve years. An occasional, comparatively mild headache still occurs. Can read for long periods without discomfort. Occasional back pain, not in anyway a major factor. The patient, formerly a complete invalid confined to bed, now after one injection of BQ gets up in the morning before her sisters, and prepares their breakfast; works around the house or garden during the day, reads, plays the piano for long periods, and has supper ready when her sisters return from work.

JULY 27, ‘47. Working in garden and doing house work daily. Is now organist in a local church. It is obvious that a complete reversal of mental, as well as physical trends, has been effected by the BQ therapy, and the patient is changed from a morose, sickly, bed-ridden individual to a useful citizen who enjoys life.

(2) Dec. 27, ’46. Mrs. J. T. white female age 29.
CC: **Asthma** since childhood getting much more severe for the past four years and particularly severe for the past six weeks. Patient was referred by another physician for corrective surgery, as he believed the patient had an intrinsic infectious asthma, and that the focus was in her nose. FH: sister died of TB. Mother’s mother died of cancer. PX No nasal pathology found.

DEC. 30. ‘46. BQ 2cc 6x IM. Weight 144.

FEB. 3. ‘47. Patient is symptom-free. No nasal or pharyngeal pathology noted.. Chest clear. States she feels much improved generally.

MAY 23. ‘47. Patient has remained completely symptom-free to date. Chest clear. Marked improvement in general sense of well-being.

(3) R. S. white female age 39.
JUNE 13. ‘46. CC: **Pain in the right cheek, the right temple, shooting through to the back of the neck, practically steady for one year.** Occasionally severe enough to produce an extreme nausea and vomiting. PX: Early climacteric changes, beginning atrophy of all nasal mucosa, abnormally large airways with resulting nasociliary neuritis. Gives a history of a streptococcus infection in left ear, subsequent drum perforation: 80-100 DB, loss to air and bone condition on all frequencies.

NOV. 5, ‘46. Pain and headache unchanged; still severe enough to produce nausea. BQ 6x 2cc IM.

DEC. 16, ‘46. Weight 98. Patient states she has not had a single sick headache since the BQ injection. BP 110/78.

JAN. 3, ‘47. One headache of brief duration since last visit. Patient is looking much improved; color is strikingly better.

FEB. 3, ‘47. Weight 100. No headaches. Continues to improve. Most striking charge is the swing from wrinkled pessimism to a rather buoyant cheerful outlook. As this patient is a schoolteacher, the importance of this factor cannot be overestimated.

MAR. 7, ‘47. Weight 100. Has had two brief headaches in the past month; no nausea with either. Pain was confined to the right eye. BP 110/80.

APR. 25, ‘47. One slight headache since last visit; no nausea. Patient ascribes this to trying circumstances, which caused her to become emotionally upset. Definite improvement in appearance of the nasal and pharyngeal mucosa. “Throat trouble” was formerly a constant complaint.

MAY 19. ‘47. Patient has had no headache since last visit, and has no complaints.

(4) L. S. white male age 27.
JAN. 2, ‘47. CC: **Massive edema** of all intraoral and pharyngeal tissues; fiery red mucosa throughout. Patient unable to swallow. Neck externally shows considerable edema under the ramus of the mandible, and around the tonsilar lymph glands, reminiscent of Ludwig’s angina. No delay was allowed for culture. Impression was **strep throat, acute, severe**. BQ 2cc 6x IM stat.

JAN. 3, ‘47. Temperature normal. Swelling reduced 75%. No dysphagia. Can take both liquids and solids.

JAN. 6, ‘47. Completely symptom-free.

(5) Mrs. N. V. white female age 48.
JAN. 25, ‘47. CC **arthritis, sciatica**. PH: **Pneumonia** several times as child; **Diphtheria**. Appendectomy 1912. **Tumor removed from right breast** after first pregnancy: character unknown. After second successful pregnancy had series of miscarriages. D & C did not correct condition. 1943, kidney cholic 1941, complete hysterectomy: uterus was found to be entirely fibrous. A few months before this, patient had a large tumor removed from right breast: character unknown. Has always had an ear infection on left; practically deal in this ear, with terrific head noises, and chronic, purulent discharge. This dates from diphtheria infection in childhood. Continual specialists care for this condition. Repeated attacks of acute sciatica for past 10 years: diathermy, injections of various kinds, and attention to general health measures failed to effect any worth while improvement. Skin dry, wrinkling.
BQ 2cc 6x JAN. 25, ‘47.

Since one week after BQ was given, there has been absolutely no discharge from the left ear, and no pain. The arthritis in the hands and toot joints has practically entirely disappeared, as the pain is concerned; swelling has reduced to the point where patient can get a ring on and off for the first time in many years. " My skin texture and color has gone back to where it was about ten years ago " "I have a general feeling of well-being which I have not enjoyed for many years." It is evident on observation that a profound physiological revolution is taking place in this patient.

APRIL 12, '47. Doing very well.
JULY 28, '47. Weight 120. (Had never been able to get over 104-105) Symptom free.

(6) N. B. white female age 22.
JULY 17, '46. CC: **Sneezing and coryza** since age 14, in the Winter and Summer. Sensitive to orris root, chicken and cheese, by intradermal tests. For a short time, Benadryl in 100 mgms. doses daily, in combination with penicillin nose drops, gave some relief. 50 mgms. of Benadryl with the drops and 100 mgms. without the drops, did not control symptoms in any way. Marked side reaction of Benadryl—sleepiness. Because of the ineffectiveness of the above approach, except in doses large enough to produce unpleasant side effects, it was decided on DEC. 24, '46 to try BQ. BQ 2cc 6x IM.

Within one week's time, the patient's symptoms cleared completely and she has remained symptom-free to date, MAY 15,47.

(7) F. V. white female age 27.
SEPT. 19, '46. **Coryza** for years, and sneezing.
Family History: patient's father has had severe asthma for past 15, years; patient's son and daughter both manifest marked allergic tendencies. Mother died of breast cancer. PX: Patient reveals grayish purple nasal mucosa, with marked swelling in all visible tissue. Patient is sensitive to horse dander and dog hair. Program of desensitization was undertaken, and Benadryl was also used.

NOV. 12, '46. Benadryl has been used in the meantime, during the desensitization program to date, but allergic symptoms are not being satisfactorily controlled, and sneezing and coryza, with turgidity of the nasal mucosa persists.
NOV. 12, '46. BQ 6x 2cc IM.

NOV. 14, '46. Patient reports she has been completely symptom-free since treatment. Nasal mucosa is already pink—has entirely lost its purple cast.

MAY 15, '47. There have been no allergic symptoms since last visit.

(8) Mrs. A. O. white female age 10.
CC: **Mist over the eye**, six months. Sight progressively failing. OD worse than OS. Optometrist unable to improve vision by changing retraction. Profuse epiphora. Marked itching of the edges of the lids and the periorbital tissues. Patient has also **arthritis deformans**, following a "spell

with her head" 16 years ago, at which time she had a great deal of vertigo; lost control of her balance, and the next morning, was deaf in the right ear. Balance has been insecure ever since, and patient tends to fall backward. Patient also had much nausea at this time, and this attack was followed by bloody emesis. There have been no similar episodes since. She walks with a cane. Specialists in Albany stated that they could not help. The arthritis involves all the joints of the body: Joints are enlarged, deformed, and tender. PX 260/90 Fundus OD could not be visualized, because of haziness of the media, and a cataract. Light reflex, however, was fairly bright. OS, there is a fairly advanced, aqueous type cataract in the left lens. The media are sufficiently opaque to prevent adequate examination of fundus. The glimpses which were obtained of portions of the fundus revealed no pathology. Vision: OD 20/100 (without glasses) OS 20 /100. With refraction (-/2.00 sph -/0.25 cyl x 90) OD 20/100, OS 20/60.

APR. 21, '47. BQ 6x 2cc IM.

MAY 19, '47. BP 180/90. Itching around eyes is definitely reduced to a slight, occasional episode. Definite reduction in epiphora. Has had no severe joint pain since treatment. Vision 20/100 OD 20/40 OS (an improvement from 20/60 on APR. 14, 47). Another attempt made to improve visual acuity by altering refraction; no result. Ophthalmological examination: media are clearing: OD fundus can easily be visualized at this time.

A patch of old retinitis involving the macular area is found; it extends to the edge of the nerve head. OS fundus can be completely visualized today; No fundal pathology noted. Lens still shows a few spots of watery deposit—much less than on previous examination. The patient's general appearance is improved, and she moves around with greater facility.

(9) Mrs. E. O. white female age 58.
JAN. 27, '47. CC: **Arthritis** of bands, fingers, ankles, hips and shoulders duration seven years becoming progressively worse to point of substantial invalidism. Patient had been under constant medical case of the highest order, but no relief had been obtained to data from any type of therapy attempted. Nocturia x 7. **Insomnia** due to pain and nocturia and often nocturnal emesis. Impression rheumatoid arthritis, with marked peri-articular changes.

JAN. 27, '47. BQ 2cc 6x IM.

FEB. 11, '47. Patient states, "I feel fine and have not had any pain since the first week. I sleep well, and do not have to get up at night any more; I sleep right through." Her hands do not shake so much.

FEB. 22, '47. "My bands and arms have not given me any pain."

MAR. 5, '47. "No aches or pains." Swellings on thumbs have disappeared.

MAR. 21, '47. Patient is looking much younger, as sleeping all night through; the swelling around her joints is going down; she states that she is completely free of pain.

MAR. 27, ‘47. This patient is making a characteristic recovery. She threw off a severe respiratory infection within 48 hours—an unheard of thing for her. She now has regular bowel movements twice daily without medication; previously had to take a cathartic daily for the past four years

APR. 14, ‘47. Absolutely no pains in feet, legs or hands. Can do anything in the house and not get tired or upset; this includes all laundry and housework, and the care of a seven-room house.

APR. 21, ‘47. Patient has gained five pounds. Swelling around finger joints continues to subside, and is now almost entirely gone.

From FEB. 11, ‘47 to MAR. 10, ‘47, patient was able to help take care of her critically ill sister, and was under severe nervous and physical strain, in spite of which she gained four pounds during this time. She had previously not been able to gain any weight for the past three years.

MAY 10, ‘47. “I feel very well the only symptom I have had at all is some prickling sensation in the left arm, if I hold anything in my hand for very long.” Patient is sleeping right through the nights— no return of nocturia, night pains in joints or emesis.

(10) Mrs. white female age 23.
APR. 22, ‘47. Following the last pregnancy 2 years ago—a multiple pregnancy—patient’s hands and arms became numb, and vertigo was marked. Diagnosis of anemia was made by two local physicians in JUNE 46, and a rest and change prescribed. Patient was at that time losing the use of her legs. In DEC. ‘46, another physician made a diagnosis of **multiple sclerosis**, which was confirmed by a specialist in Albany. Spinal tap also supported diagnosis. During the past five months, patient has had inconsistency of bowels and urine, from time to time: this followed a spell of apparent paralysis—loss of ability to defecate or urinate voluntarily. Rhomberg markedly positive on all of three trials. Ankle clonus bilaterally. Quadriceps clonus can be elicited. KK four plus. AJ four plus. No plantar response. Legs are numb from hips down.

APR. 25, ‘47. BQ 6x 2cc IM.

MAY 19, ‘47. Patient has not bad any accidents in regards to bowels or urine since treatment, and has good voluntary control Rhomberg: Patient evidenced balance for fifteen seconds on one out of three tests. No demonstrable change in other reflexes. The moat noticeable improvement is in the patient’s color: as marked change from a pasty gray to a healthy glow. Appetite is excellent.

(11) Mrs. B S white female age 48.
JAN. 9, ‘46. **Marked pitting edema** both legs. Patient complains of her nasal passages being constantly blocked for many years. Severe arthritis both knees 1939. PX: 162/94. Marked left septal deviation, 8O% obstruction. Mucosa purple-gray. Tonsils buried. Patient was placed on a low-salt diet, and salyrgantheophylline. BQ 2 cc IM was given.

JAN. 22, ‘46. BP 160/80. Had a severe attack of hive, during previous week, with scarring. Recent history of severe vasomotor instability. Patient was transferred to a physician near her

home, and no records are available until NOV. 7, ‘46, when she reported in, complaining of severe ankle swelling, and inflammation and pain in the toe joints. This, she states, had begun 3 years ago, and has become progressively worse. BP 126/74. BQ 6x 2cc IM.

NOV. 7, ‘46. No nasal symptoms. No ankle edema. Patient looks much improved; color is good. BP 138/80. Patient volunteers additional history that she has been troubled for years with black spots before her eyes; these have entirely disappeared.

DEC. 19, ‘46. All joints a symptomatic. “I am not nearly so nervous and I don’t get so tired and sleepy. I do not seem to need more than three or four hours sleep a night, and I am not tired the next day.” General appearance improved. Nasal mucosa shows no bogginess. “I notice marked improvement in my nose; I can breathe better.” No edema of ankles or feet.

JAN. 14, ‘47. No symptoms referable to nose and throat. No edema. No headaches, no joint symptoms. BP 140/80. Examination reveals no nasal or pharyngeal pathology other than the deviated septum.

APR. 17. ‘47. Symptom-free.

(12) D. C. white female age 15.
MAY 13, ‘47. **Sore throat, unable to swallow**. Walnut-sized mass protruding from right side of neck about half-way between mastoid process and sternal attachment of SCM muscle. Generalized swelling of neck and throat. Oral temperature 102.5. Duration 3 days, becoming steadily worse. Sloughing ulcers on posterior pharyngeal wall, extending into nasopharynx, with intense injection of all visible mucosa. Patient appears toxic. Clinical impression **streptococcus hemolyticus infection with incipient Ludwig’s angina.** No delay for culture considered justifiable.

MAY 13, ‘47. 9 PM, BQ 6x 2cc IM.
Thirteen hours later, MAY 14. ’47. 10 AM, TPR normal. All swelling of soft tissues in neck and throat completely disappeared. Mass on side of neck no longer visible but slightly palpable. No dysphagia. Eating solids.

MAY 15, ‘47. TPR normal. Looking and feeling very well. Ulceration posterior pharyngeal wall healed.

MAY 16, ‘47. Returned to school. Symptom-free.

(13) Mrs. B. H white female age 39.
JULY 7, ‘40. CC: **Failing vision**. PH: constant backaches, one year’s duration; spots in front of right eye; slight pitting edema of ankles, many severe headaches. Urine examination; albumin one plus; innumerable WBC and epithelial cells; many casts, coarse and finely granular. BP 154/90. Cataract in OD, pulse 84. Thyroxin ophthalmic was used, and by AUG. 6, ‘40, patient noted some improvement of light perception in right eye. In October 1940, patient was seen because **of severe asthmatic** attack of two weeks’ duration—an exacerbation of a perennial complaint since childhood. By this time, OD retina could be visualized, and scattered

hemorrhagic areas were found on the temporal side of the retina. Thyroxin immediately discontinued.

FEB. 13, 41, BP 150/100; urine, no albumin.

MAR. 21, ‘41, BP 170/104 CC: “Toothache”, but patient was edentulous. She had a constant backache, and dysuria; neuralgic pains, oligouria.

AUG. 12, ‘41. BP 160/106. Fundal examination reveals small flame areas on the right, and bilateral papillary retinitis. Fovea in left eye has an abnormal appearance: no hemorrhagic areas in OS. BP 160/100. No albumin or pus in urine.

SEPT. 16, ‘41. BP 158/100. There appears to be some resorption of retinal hemorrhages, which have been causing the scotoma in right eye.

SEPT. 12, ‘41. No hemorrhages seen in right eye. Patient presents a vacuolated, papillary retinitis, OD, which might be classed as a chonoretinitis.

OCT. 15, ‘41. No further retinal hemorrhages. Still has asthma, and is coughing.

DEC. 31, ‘41. No new hemorrhages. Small, scattered pigment deposits around fovea centralis left eye. Area extends to limbus of optic nerve.

MAR. 11, ‘42. Patient is getting up in morning with severe headaches.

APR. 22, ‘42. Patient still has severe asthma.

JUNE 26, ‘46. The war years intervened, and patient was seen this date for first time in tour years. Urine; no albumin and no pus, no casts.

AUG. 30, ‘46. Some slight side vision in OD, but a marked negative acotoma in line of sight. Vision in left eye is regressing, and patient has considerable night blindness. Large doses of Vitamin A. Failed to make any improvement. Old areas of chorioretinitis unchanged. Patient has developed an arthritis of right shoulder, now of three years’ duration.

SEPT. 30, ‘46 Chorioretinitis has progressed bilaterally to point where patient is practically blind; she reports that ever thing is dark in the right eye, nor can she recognize faces with her left eye, although she can see shapes and count fingers.

SEPT. 30, ‘46. A mixture of polymers of ethylene and carbonyl group linkages was administered intramuscularly, 2cc of a 12x solution.

OCT. 21, ‘46. Patient can read Jager 1 at 13” with the left eye; she can see light with the right eye, and is much improved in general appearance.

NOV. 12, ‘46. Patient states she had been troubled with severe varicose veins; these have

progressively reduced in size and discomfort since treatment, until at present they are half as large as before. Vision, OS 20/20, J-1:13." Weight 175, BP 150/100. Patient reports she notes improvement in right eye, but this is not measurable on test chart.

DEC. 3, '46. No further complaints referable to kidney function, Patient adds to history that she had a bunch on her right thumb for years; this is now about half as big as it was before treatment Her rheumatic and arthritic pains have substantially diminished. Weight 172%. Fundi: the patches of chorioretinitis appear less obvious BP 170/90.

JAN. 10, '47. No complaints referable to urinary system. Patient states that an extremely painful bunion that has previously caused much trouble is now reduced in size and symptom-free for a number of weeks. She also adds that the nail on the great toe of the left foot, which had been dead for years, has since the last visit, been pushed off by a new nail. Weight 175. BP 158/98. Vision: OD 20/200, OS 20/15, J-1:13."

FEB. 21, '47. Patient has crocheted six sets of chair covers, and is now working on a tablecloth, since she has been able to see again. She calls attention to the fact that, a year ago, she was wearing elastic stockings because of her varicose veins, and that the veins have now cleared to such an extent that she no longer needs such support. No headaches, no joint pains. Vision: 20 /200 right eye. 20/15 left eye. No chorioretinal lesions in left eye. Impression that some reduction in right fundal pigmentation has occurred.

MAY 14, '47. Vision, OD: patient can row read 1 1/2 -2" letters in headlines and magazines; OS. 20 /15. J-1:13". BP 160/90. Weight 183. Comfortable, and symptom-free.

(14) C. E. white female age 35.
Nose always blocked. Has had **severe scaling and weeping eczem**a behind both ears, on skin of hands and face since infancy. She was a "blue baby." Has had many outbreaks of hives. No allergic family history. PX: marked left septal deviation, heavy mucopurulent discharge post-nasally, with enlargement of posterior pharyngeal wall lymph tissue. **Chronic right eustaceitis**, with drum retraction. Patient gives marked positive skin tests to wheat and strawberries: courses of desensitization injections unsuccessful. Subject year round to frequent bouts of vasomotor rhinitis.

DEC. 12, '46. BQ 6x 2cc IM.

MAY 22, '47. Areas behind both ears, formerly involved in severe eczema, now show no scaling or weeping; skin is smoother, shiny, slightly redder than surrounding skin, and shows some geographic creasing, but no signs of active eczema. Patient states that nose and throat have been entirely symptom free, and this is in marked contrast to former condition, when nose was continually blocked.

(15) C. C. white male age 14.
CC: **Heartburn, indigestion,** years. **Chronic purulent sinusitis**. Severe chronic hacking cough. Marked soreness of mucosa in nose. Considerably bloated. Very sensitive to cold bouts of sneezing, Winter and Summer. PX: Chronic catarrhal otitis media, secondary to chronic purulent

sinusitis. Skin: discoloration and plaques of hard, cornified epithelium superimposed on a deeper stratum. Of markedly irritated basal skin, including areas on the nose bilaterally, lower lids, cheeks, cheekbones, wrists, temples, forearms, giving definite impression of **pre-cancerous lesions, squamous cell**. In most areas, few spots over the cheekbones and on nose suggestive of pearl cell type: round, hard clumps of dense tissue seeded in areas of injection. Abdomen markedly distended and tympanitic.

FEB. 11, '47. BQ 6x 2cc IM.

MAR. 28, '47. Definite improvement; no bleeding areas in skin, nor any areas of bleeding from nasal mucosa as formerly. No purulent discharge found from sinuses. Scaling of skin less pronounced. No symptoms referable to ears. The severe, chronic hacking cough, secondary to the purulent sinusitis, present at last visit has entirely disappeared.

MAY 16, '47. Has sneezed only twice since treatment skin definitely clearing: forehead, upper lip, chin, tip of nose are entirely clear of the keratotic lesions. Skin definitely not so tender. Scaling has disappeared from skin of hands and forearms. Pathology limited to isolated areas. No indigestion, bloating, or pus from nose. BP 120/80 Pulse 72.

(16) H. R. white female age 29.
APR. 4, '47. Patient in marked toxic state; gray pallor, temperature 97.4, pulse 120: PX: acute pharyngitis, breath sounds harsh throughout. Marked enlargement of cervical lymph glands; marked hypertrophy of lymphoid tissue on posterior pharyngeal wall. Has pain under shoulder blades and in chest; generally aching all over.
Diagnosis: **influenza.** BQ 2cc 6x IM stat.

Patient was able to be up and about the house the following day, and felt well enough to return to work, but thought it best to rest another day. Resumed her normal, usual activities the following day. This patient's past history includes frequent bilious attacks and bouts of acute gastritis since age 5. She was always tired as a child. FH: Mother had continual crops of pyodermic infections, and died of breast cancer. Mother's sister also died of cancer. The patient, for as long as she can remember also has had repeated and continual pustular acne, involving the face, chest, back, shoulders, and thighs. Pneumonia and influenza at age of 5 months, at which time her life was despaired of. (Patient was born during the 1918 flu epidemic.)

MAY 17, '47. The marked, chronic pustular acne, which bad been present for seventeen years, began clearing immediately after BQ injection. Only one new pustule has occurred to date, and this resolved promptly. Skin is more vital, and induration from previous pustules is re-absorbing.

MAY 23, '47. Symptom-free. Adds history of phlebitis both legs since 1942: all tenderness and enlargement of veins has disappeared. Patient can now wear sheer blouses for first time in seventeen years: this is important enough to her to have been the subject of specific remark

(17) R. H. white female age 38.
MAR. 6, '47. **Episode of numbness without discoloration, both feet,** Winter of 1945-1946.
CC: now severe pain in both feet, duration, five months. Loss of sensation in fingers.

Examination reveals reddish-purple discoloration of all toes, becoming progressively more marked as the extremities of the toes are approached. Nails are pasty-gray color; skin over the ends of toes is flaked and raised, and there is a sero-sanguinous discharge from under the nails. Extremities all very cold to touch; no pulsations palpable over either dorsalis pedis or posterior tibial arteries. Digital pressure on skin of foot produces a profound blanching, and there is no color return for at least one minute after pressure is removed. Placing the feet in either warm or hot water causes an intense burning sensation. Continual sensation as though both feet were in ice water from ankles down. Shins are purplish, livid, mottled. Impression: Raynaud's disease, advanced, with impending gangrene. Past history: Diabetes at age 2; confined to bed for years with tuberculosis; in TB sanitarium for five years; on pneumothorax for four years. Persistent carsickness. These are manifestations of hydraheaded pathology in the same family: FH: Father has had asthma all his life; nasal polyps blocking both airways in nose, and hay fever. Mother has bad migraine all her life, and a severe, chronic, purulent sinusitis; chronic nephritis, high blood pressure, chronic eczema. One brother died of Hodgkin's disease.

MAR. 8, '47. BQ 6x 2cc IM.
Six hours later (MAR. 8, '47), feeling had returned to both feet. Patient stated. "They feel as though they really belong to me for the first time this winter."

MAR. 9, '47. Feet feel quite normal. No discharge from under the nails. Skin is pink all the way to toe tips. Palpable pulsations in foot arteries.

APR. 4, '47. Good arterial pulsations, both feet. Skin color both feet uniformly pink. No residual of the purple lividity formerly noted. Much of the dead epidermis over the tips of the toes has been flaking of and leaving healthy skin beneath. No discharge from under any of the nails. All nail beds are now normally pink. Patient has normal sensation all the way to tips of toes. Symptom-free.

APR. 24, '47. No complaints referable to feet or legs. Much improved in general appearance, color, and sense of well-being.

MAY 24, '47. Symptom-free to date.

(18) Mrs. W. G. white female age 61.
CC**: Pain in forehead for years**. **Phlebitis** 30 years, following pneumonia, has worn rubber stocking ever since. Sinus operation 25 years ago: much bone removed. Eye muscles operated upon for squint. **Chronic catarrh**, stiff joints past 5 years. Fractured vertebra 32 years ago: wears Taylor brace. **Marked anemia**. Patient sensitive on skin tests to pork, chocolate, eggs, beets, celery, cabbage, lettuce turnips, salmon, lobster, wool, nutmeg, violent constitutional reactions to prunes and tomatoes. Apples and grapefruit cause intense itching and burning of skin all over body. Patient has had severe eczema on left leg for 30 years. **Mucous colitis** 30 years. **Jacksonian epileptic seizures** repeatedly since grade school: has taken luminal daily for many years; 1 Brother severe asthmatic. Mother severe asthmatic.

JAN 14. '47. BQ.

FEB. 3, ‘47. Definite diminution in headaches and in nasal discharge. Skin in area of Phlebitis does not burn and itch as former redness is definitely diminished, as is also the swelling. No more mucus in bowel movements.

MAR. 11, ‘47. Phlebitis area on left leg continues to improve in appearance, as well as subjectively

APR. 18, ‘47. No complaints referable to sinuses: no headaches. Bad area left leg continues to fade: less itching. No more burning sensation along the course of the veins. Patient definitely improved in general, and states, “The colitis is definitely improved: I now have the most natural bowel movements in thirty years.” Appearance of nasal mucosa definitely improved. Very little discharge from nose; this is mucoid. No headaches. BP 110/80. No epileptic seizures since treatment, although intake of luminal hays been cut to an occasional quarter grain dose, for psychological reasons.

MAY 15, ‘47. Patient continues to make satisfactory progress. She can now eat foods, which formerly caused severe constitutional reactions, and has no itching or burning of the skin.

(19) C. H. white female age 55.
CC: **Choking sensation, and heavy purulent postnasal discharge**. Multiple areas of low grade **Phlebitis** both legs; duration five years. PH: includes **hay lever, stiffness of joints**. Hysterectomy 1941. Blood cultures negative to date. Hospitalized 1943; the surgeons at that time stated that the patient bad thrombophlebitis left lower leg, duration one year. Kahn negative. Revisited clinic for checkup January 1945, at which time she had a thrombus in the right leg four months previously; she had a tender, indurated area on her right leg.

DEC. 6, ‘46; Red, blotchy, tender areas, both lower legs. Injection both tonsilar fossae, postnasal lymphoid hyperplasia, enlarged and tender tonsilar lymph glands; patient very jumpy and nervous.

DEC. 20, 1946, BQ 2cc 6x IM.

JAN. 13,‘47. Legs much improved subjectively, with marked reduction of pain. Joint stiffness definitely diminished. PX reveals no reddened areas on the legs. General appearance improved.

MAY 20, ‘47. Patient reports a rapid and sustained improvement in her general condition during the past three weeks. There are some small areas of localized, Low grade Phlebitis still present to palpation, but no redness of the overlying skin is noted. Patient is able to walk with much more comfort, states she feels the best in wears, and is planning to resume her work, which involves standing all day.

(20) J. R. white male age 67.
OCT. 22, ‘46. Right knee and right leg tremendously swollen and painful. Many types of therapy had been tried up to this time— iontophoresis, diathermy, Rayformosil, foreign protein: patient became progressively worse, and more incapacitated. By OCT. 7, ‘46, the right leg was edematous from the mid calf to the foot, and very painful; no edema or pain in left foot or leg at any time. X-ray taken of right tibia and fibula did not appear to reveal any bony pathology.

There was no groin or RLQ distress. Up to this time, the cause of the localized edema was not evident; the **differential diagnosis seemed to lie between an obstruction to venous return (possibly chronic phlebitis), thrombosis, or neoplasm**. There were at that time, however, no areas of redness or increased temperature; the leg was definitely cold compared with the left.

OCT. 22, ‘46, patient came in with BP 160/94, pulse definitely that of an incipient auricular fibrillation. BQ 6x 2cc IM stat.

OCT. 29, ‘46. 124/80 CC: nocturia twice a night. Pulse definitely more regular. Still edema of right leg, and some pitting edema of left leg.

NOV. 5, ‘46. BP 140/70. Pulse 80. Edema subsiding practically none in left leg. Extends to ankle only in right leg Right knee still painful and swollen.

NOV. 12, ‘46. Edema: none in left leg; slight in right leg. Right knee still swollen and painful, but definitely less so than last week. Pulse 80 and regular. Patient states he can see better. Practically no edema in right leg, and patient gets around with more facility. Pulse regular 72, strong. Color much better.

DEC. 20, ‘46. Pulse regular, strong, full. BP 140/76. No edema whatsoever in either foot or leg. Right knee joint still somewhat swollen, stiff and somewhat painful.

FEB. 21, ‘47. Pulse regular, no edema. Right knee still swollen but less painful. Patient is gaining weight and looking much better.

APR. 15, ‘47. Patient drove to office himself today for the first time in over a year: has not been able to before. He came alone, and walked unassisted up two long flights of steps to the once, putting the right foot in front of left in normal progression—which be had not previously been able to do. Appearance definitely improved, as far as color, skin texture, etc,, are concerned—an interesting phenomenon at the age of 67. Right knee is only slightly larger now than the left; is still definitely warmer than the left PMT over tibio-patellar ligament; no tenderness anywhere else on joint. No edema of either leg. Patient has a little more than 90-degree flexion of right knee at this time. This is the first time in several years that this amount of flexion is possible. This flexion is attained actively, without pain, and patient is regaining strength in leg, manifested by the fact that he can use his leg to lift the weight of his body. Patient has received no medication since DEC. 20, ‘46, except vitamin C and iron.

This man has shown improvement far beyond hope, considering his age and the condition in which he first presented himself. Progress was absent under other modalities and approaches employed, and only after BQ was used did he begin to make improvement, and show progress toward functional restoration of the right knee. He has not been able to work for a year because of this illness, but he handles himself so much better now that he is expecting to resume some of his usual work within a few weeks. Weights 133 ¾.

JULY 27, ‘47. Working in hay fields every day.

(21) E. O. white female age 48.
Every childhood disease, including Scarlet Fever. Flatulence since childhood. Blow on thyroid gland was followed by rapid increase in weight. **Phlebitis** since 1919, both legs, following influenza. **Arthritis** both knees since 1912. Polyposis uteri. In 1937, severe bout of acute arthritis of the spine. In 1945: patient could hardly move. **Chronic lingual tonsillitis**: lingual tonsils removed 1945; some improvement in joint function. Pains in legs have continued; acute phlebitis several times since. Cannot get out of a chair without help. Flatulence and intestinal indigestion increasingly troublesome. **Asthma and hay fever severe**, since 1921. **Fungus infection** of right hand, for which patient has received x-ray therapy, salves, etc. without help: skin continually raw and broken. Weight 256.

JAN. 27, '47. BQ 6x 2cc IM.

MAR. 19, '47. Infection on right band completely healed. Can now get up out of a chair without help. Has lost 14 pounds.

JAN. 27, '47. Now 342 pounds. Has never before been able to get rid of her excess weight, even with thyroid extract and strict diet. "I feel very much better, and look forward to the morning, because I know I will be able to get up and work. Before this, it has always been a very uncertain quantity as to whether I could get up or not. I haven't had a sign of asthma since the injection. There has been a considerable easing of the pain in my knees. I've had arthritis of the knees since I was 12 years old. Now I can go down the stairs without difficulty, even carrying things. My skin has always been a copper color and blotchy and this has worried me, because everyone spoke about it. Today my skin is normal. I have had rheumatic iritis for many years, and I haven't been able to read for more than a few minutes for many years without great discomfort. Now I can read all evening and my eyes are not even red the next morning."

MAY 21, '47. Patient looks as though she is enjoying life. There are still three well localized area of Phlebitis; one on the anterior aspect of the left thigh; one on the lateral aspect of the left knee and one over the lower third of the right tibia. This patient continues to improve to date.

(22) E. G. white male age76.
On DEC. 28, '37. Patient hospitalized because of severe, **serial epileptiform seizures**, and mental imbalance. Periodic recurrence since age 20: always grand mal in type. At first, only at night; recently, during day also. Two previous periods of disorientation. Seizures have been getting more frequent, and patient more irritable. Abundant signs of generalized arterial disease. Spinal fluid; no cells. Globulin neg. WaR and BWaR neg.

DEC. 28, '37. Note from Chief of Medicine: "I do not know of any particular therapy that should be advised, other than sedation. I thought be must have an old scar at or near the left motor cortex." INTERVAL HISTORY: Continual sedation, Phenobarbital. Hardly a month has gone by without some type of seizure, until DEC. 16, '46. In the Fall of 1938, an epithelioma developed on left cheek. near nose. Radium treatment: cleared.

SEPT. 27, - OCT. 11, '46. HOSPITAL ADMISSION. "Nineteen successive epileptic seizures in 28 hours. Idiopathic grand mal, epileptic deterioration. Basal cell carcinoma skin of face.

Confined to bed two weeks in 1940 because of severity of seizures: during this time, he was unconscious or grossly disoriented. Since then, he has bad seizures every 2-6 weeks, which have become more severe of late. Memory impaired for recent events. Since Dec 45, has taken Dilantin, 3 capsules daily. May 1946, prostatectomy. Patient had nine more epileptic seizures during the first two days in the hospital in spite of the administration of large doses of sodium Phenobarbital. Began to take fluids by mouth on third day. After two weeks, it was apparent that he was functioning at a lower intellectual level than he had enjoyed before the onset of his pre sent illness. Discharge on 15th day, with Dilantin, 1 grams tid. ”

Since continual administration of Dilantin, Phenobarbital, and bromides had failed to control these repeated serious episodes. It was felt that we were justified in attempting another type of therapy.

On DEC. 16, ‘46, 2cc 6x BQ IM:

DEC. 20, ‘46. Had a series of 10 epileptic seizures serially. General condition good. BQ 6x 2cc. The patient immediately relaxed.

DEC. 21, ‘46. No further seizures. Conscious. Has eaten frequently all day. Dilantin sodium was administered for three days, and then stopped. The patient’s course was uneventful without sedation for six weeks: he improved steadily in orientation, wrote letters to his children for the first time in many months, and improved very much in general appearance.

FEB. 18, ‘47. Pneumonia, from which he rapidly recovered with Penicillin injections (hospitalized).

MAR. 27, ‘47. No interval seizures. Functioning at a higher intellectual level, and is able to read for long periods of time, writes letters, and enjoying himself: walks about the village. General appearance the best in many years.

MAY 19, ‘47. No seizures since FEB. 18, ‘47. Continues to improve in every way. Is constantly engaged in literary work, and is functioning at highest intellectual level in past ten years.

JULY 27, ‘47. No further attacks. Engages in productive literary work every day for several hours. Walks about one mile daily.

(23) M. G. white female age78.
CC**: Arthritis** deformans all hand joints, hips, shoulder joints, knees, elbows. Has been invalid for many years, using two canes. Also constantly blurred vision. PX: media cloudy. Nerve beads hardly distinguishable. Vision less than 20/100 OU, with glasses.

NOV. 2,‘46. 2cc BQ 6x IM.

NOV. 25, ‘46. Joint mobility definitely improved. No joint pain for past four days. Fundus OS can be visualized without difficulty. Most of OD fundus can be visualized, but there is a lenticular opacity in the line of sight. Vision OD 20/70, OS 20/50, OU 20/50.

DEC. 17, ‘46. Can get around much better. 96/64. Fundi, no change; media, no change.

JAN. 13, ‘47. BP 100/60. Patient no longer uses a cane around the house at all. Vision OU 20/20-3. Fundi, clear. No trace of cataract can be found, and no media opacities noted. Hand joints more limber.

FEB. 12. ‘47. BP 120/70. Hand improving; joints more limber. Patient now sees 20/20-2.

MAR. 10, ‘47. Vision 20/15-2. OU 120/74. Color definitely improved. Patient does not feel the cold so much any more. Weight 74. Came to the office today without a cane, in spite of the ice and snow.

APR. 3, ‘47. “I haven’t had a cold all winter; this is remarkable for me.”

MAY 6, ‘47. Vision OU 20/15. Patient walks faster, and lifts her feet; no longer drags toes with a hip swinging shuffle as previously. Patient states, and observation confirms, that motion in deformed hand joints continues to increase, and that the angular joint deformity at the distal interphalangeal joints is actually diminishing. R. hip entirely symptom-free. Knees and hands the only joints that bother at all, and the right knee is very much more limber, with very little pain.

JULY 27. ‘47. Patient can now get right band open flat without strain or path. Left band opens about (80%.) Hips and knees are symptom free. Vision OU 30/15.

(24) A. A. white male age 53.
First seen JULY 31, ‘46. CC**: inflammation of the left eye** since 1944. Specialist care in New York City until few weeks ago. Previous treatment consisted of atropine locally, and quinine orally. PX: Periorbital soreness. Eyeball tender. Marked photophobia. Form vision and finger counting only. Impression**: interstitial keratitis with marked corneal opacity**; fundus could not be visualized. Finger tension test normal. Atropine and penicillin choline drops, in conjunction with hot packs, and intramuscular foreign protein were used. The pupil did not dilate well. Epiphora annoying. Ciliary injection not clearing.

AUG. 27, ‘46, slipped out from under atropine; marked conjunctivitis, ciliary injection.

SEPT. 23, ‘46. Ciliary injection again returned, OCT. 4, ‘46. Iritis flared again.

OCT. 21. ‘46. Progress unsatisfactory. It was decided, in view of the long history of recurrences, to try Parabenzoquinone BQ 2cc 6x IM stat.

OCT. 28, ‘46 Eye completely white since treatment; tension normal, no tenderness, no photophobia.

NOV. 25, ‘46. No medication now for some time; no redness, no pain. Can see very well.

DEC. 12, ‘46. No medication in meantime; eye quiet, and symptom DEC. 24, ‘46. Patient states, “The opacities are clearing now day by day.” Weight 167 pounds—a gain of eleven pounds since BQ administered on OCT. 21, ‘46. Corneal cloud is very thin now, and will doubtless clear completely. Vision 20/30. Patient left the following day to fulfill a three-year contract in Chile, S. A. He was to inform this office at once of any flare up in the eye. As no word has been received, we may conclude that he remains symptom-free.

(25) Z. H. white male age 42.
CC: **Chronic purulent sinusitis** since 1933. Headaches, chronic pharyngitis and laryngitis. OMCP right. All usual modalities were employed to eradicate these chronic infections, without any permanent improvement. (Sulfa, penicillin, foreign protein, topical applications, Proetz displacements, etc.) Finally, on NOV. 29, ‘46 BQ 2cc 6x IM. Within ten days the patient was completely symptom-free.

MAY 21, ‘47. No discharge or pain in right ear. Chronic laryngitis clearing. No purulent discharge from sinuses.

(26) F. B. while male age 57.
CC: **Neuritis and arthritis**, ten years. Purulent sinusitis, involving the right maxillary and anterior ethmoid cells. Much severe headache. Has tried all kinds of nasal treatments from various physicians for ten years, without relief.

FEB. 21, ‘47, EQ 2cc 6x IM stat.

MAY 15, ‘47. Occasional twinges of neuritis, but substantially clearing. Completely symptom-free in regard to the arthritis. The sinus condition has also cleared completely, and there is no pus to be seen, and patient is free from headaches.

(27) Mrs. D. R. white female age79.
First seen NOV. 5, ‘46; CC: **severe eczema** bath arms to above the elbows, both legs to the hips, both feet, face, neck and chest; duration, one month, becoming progressively worse. Appeared first on left ankle, then on legs, last on face, and hands. Intense itching and watery discharge. Patient gives history of past reactions to certain face powders; has had bouts of hives. BQ 2cc 6x IM stat.

NOV. 12, ‘46. Eczema completely dry, with exception of one square centimeter area on left ankle. No itching. CC: at this time is a stiffness of the skin. The palms of the hands especially showed marked improvement, and the depth of the cutaneous induration had deceased in all areas.

NOV. 19, ‘47. Improvement had progressed to point where redness was almost completely gone. Leg lesions remained completely dry.

NOV. 26. ‘46. Skin of hands and arms normal; no redness or scaling. Several small areas on legs still show redness; no skin breaks. Face, neck and chest completely cleared.

APR. 21, ‘47. One spot 1 square cm., slightly rough, on left ankle. All other areas clear. Patient symptom-free.

JULY 27, ‘47. Patient remains completely symptom-free.

(28) G. N. white female age 57.
CC: **Severe ringing and noises in the ears**, especially right. Catheterization and inflation of the right Eustachian tube produced no relief of the tinnitus. BP 250/130.

JAN. 9, ‘47. BQ 6x 2cc IM.

MAR. 25, ‘47. On two occasions since treatment, each lasting for a few minutes only, the patient had a very slight buzzing in the ears. At all other times, patient has been completely symptom-free. She now reports that a chronic cough and chronic stomach trouble which she had previously suffered with, has completely cleared up. BP 160/120.

MAY 17, ‘47. Patient states, “I am feeling better all the time, and have no complaints.”

(29) J. W. white male age 21.
CC: **Nose continually blocked**. FH: Father has had severe asthma for 3-0 years. Patient has had repeated attacks of water blisters covering his body. PX: No polyps or pus. Tremendous turgidity nasal mucosa, with purplish cast to all visible membranes, and a marked bogginess of the inferior turbinates.

APR.4, ’47. BQ 2cc 6x IM.

APR. 17, ‘47. Patient states, “I have been to Dr. Blank and to Doctor Blank, and to a specialist in Albany, but I have never felt so well as I do now. All the trouble in my bead has cleared up.”

MAY 20. ‘47. No return of symptoms.

(30) P.A. white male age 38.
First seen FEB. 11, ‘47. CC: **Arthritis**, following Neisserian infection seven years ago. Extreme soreness right testicle three weeks ago. One week ago, an increased amount of arthritic pain in left shoulder.

On FEB. 9, ‘47. **Pleurisy**. PH: appendectomy at age 6. PX: Marked pallor; overweight; 170 lbs. Soreness and stiffness of knees, elbows, and particularly left shoulder. Marked tenderness over nerve roots of Dorsal XII, and over suprascapular and rhomboid groups on left. BQ 6x 2cc IM stat.

FEB. 28, ‘47. Complete remission of all pain since one week after treatment. Weight 168. Color markedly improved.

MAR. 16, ‘47. Completely symptom-free until he shoveled snow for a day and a half following a blizzard on MAR. 3, ‘47 at which time he experienced sharp return of left shoulder girdle pain

for one half day; this has disappeared entirely, and no further symptoms have appeared.

MAY 17, ‘47. Remains symptom-free to date.

JULY 27, ‘47. Patient remains symptom-free.

(31) J. C. white male age 22.
MAR. 31, ‘47. CC: **Acute, severe iridocyclitis**, left: pain, photophobia. BQ 6x 2cc IM stat.

APR. 2, ‘47. Eye completely clear and symptom-free.

MAY 21, ‘47. Recheck. Eye quiet. There has been no return of symptoms.

(32) W. A. white male, age 56.
PR: **Epididymitis and influenza** twenty years ago. Pleurisy 1946. CC: now cough, severe, especially in the morning, to the point of nausea. Arthritis, right wrist and both ankles for the past year. FH: Mother died of carcinoma of the breast. One brother has had asthma since childhood. One sister has moderately severe psoriasis: one sister has severe psoriasis. One sister had carcinoma of breast.

MAR. 22, ‘47. BQ 2cc 6x IM.

MAR. 23, ‘47. All joint pains have disappeared. The patient has not coughed since treatment.

MAR. 31, ‘47. No return of arthritic pain. No cough. Patient is looking very well.

MAY 17, ‘47. No complaints. This patient is making a characteristic recovery.

(33) M. A. white female age 39.
First seen NOV. 4, ‘46. CC: **headache, fever** 101.6. PH: hospitalized March 1946, for undulant fever; agglutination 1:320: temp. 104. History of malaria in childhood. PX: 120/90. Weight 129. No visible pathology demonstrated. BQ 6x 2cc IM stat. Five hours later, temperature normal.

NOV. 7, 46. 120/70: definite subjective improvement.

DEC. 2, ‘46: Weight 130%: feeling well; symptom-free.

DEC. 17, ‘46. Weight 131¾.

FEB. 4, ‘47. Weight 136: 118/70. Symptom-free.

MAR. 23, ‘47. Agglutination B. abortus 1:160. Patient looks and feels very well: symptom-free.

APR. 1, ‘47, weight 139lbs.: symptom—free.

JULY 27, ‘47. Agglutination B. abortus 1:40. Symptom-free.

(34) O. C. white female age 37.
PH Neisserian infection, 1936: very ill for the following year. CC: now **migraine headaches** since age 14. Gets very severe headache from eating chocolate. Weight l68. Very nervous. Has been taking three Benzedrine tablets daily for years. Has severe headache at the moment.

MAR. 20, ‘47 BQ 2cc 6x IM. Headache gone in ten minutes.

MAR. 27, ‘47. Weight 165. Feeling the best in many years.

APR. 2, ‘47. Symptom-free.

(35) C. C. white male age 57.
MAR. 13, ‘47. CC: Pain in left hip fifteen years, constant; pain in back. X-Rays 1942: **ARTHRITIS of the spine and hip**. Specialist’s opinion: surgery would not benefit. PX: 124/80. Pulse 52. Definite stiffness of spine and left hip: marked limitation of motion.

MAR. 13, ‘47. BQ 3 cc 6x IM.

APR 14, ’47. Definite improvement has been noted since.

APR. 3, ‘47. Back has not pained at all, in spite of regular arm work: discomfort at present time confined to left hip. States that his pains have always been affected by the weather, and that the rainy spell during the past week, which ordinarily would have produced an acute exacerbation of pain, caused him no discomfort whatsoever. This was a very definite surprise to the patient

MAY 20. ‘47. Patient feeling very well: has gained ten pounds.

JULY 27, ‘47. Rides farm machinery without pain for first time in many years. Has done own haying.

(36) T. B. white female age 27.
CC: **Hemoptysis**. Tuberculosis since 1938. Sanitarium care 1940-45, an complete bed rest. Pneumothorax begun 1941. Thoracoplasty 2 stage. Left, in NOV. ‘42. Patient has been hemorrhaging from the lungs from time to time since 1940. Source of the bleeding never determined in spite of repeated bronchoscopic examinations. Has been rechecked at the TB hospital every three months. One child 17 months of age: since the birth of this child, patient has been receiving pneumoperitoneum every week. This treatment was begun as an in-patient, and is being continued in the OPD. During the past 17 months, weight has been steady at 92 pounds. Sputum negative for eight months. Patient states she has been bringing up considerable blood, sometimes several mouthfuls, with every menstrual period. Menstrual periods are irregular.

FEB. 17, ‘47. BQ 2cc 6x IM.

MAY 13, ‘47. Patient states, “Since February 1947, my menstrual periods have been regular, with only a slight streak of blood in the sputum in March, less in April, and none at all in May.” The patient states further that she now can get up promptly in the mornings, prepares breakfast for the family, and states she feels very well and has to restrain herself constantly from washing woodwork and floors.

(37) C. H. white male age 77.
MAY 15, ‘47. **Severe asthma and heart trouble** fifteen years. Progressively worse. Now wheezes violently even when sitting still. **Marked dyspnoea** on the slightest exertion. Skin of chest, back and buttocks covered with pigmented and un-pigmented moles, sessile and pedunculated: lesions typical of psoriasis, and warty excrescence. Pus in the left antrum. Pulse irregular in volume and pressure: one beat in every six reaches a pressure of 160 mm. Average diastolic 110. Mass in abdomen size of a volleyball; firm, extending to the umbilicus from above; slightly moveable. Because of the extreme dyspnoea and acute discomfort of the patient, no preliminary preparation was done.

BQ 2cc 6x IM. Within fifteen minutes, there was at least 30% reduction in the amount and severity of the dyspnoea, and the patient was obviously much more comfortable, and stated, “I feel as though all the obstructions had been cleaned out.”

MAY 22, ‘47. BP now 130/80, and the pulse is regular in volume and rhythm. No wheezes in the chest. Color excellent Patient has no complaints.

JULY 27, ‘47. Warts and moles dropping off, leaving clean, smooth skin. General condition much improved.

(38) A. E. white female age 43.
JAN. 3, ‘47. CC: **Vertigo, tachycardia**, nervousness, loss of weight headaches. “Heart beats so hard that throat aches.’ EKG: “Sinus tachycardia not believed due to cardiac pathology.”

BMR JAN. 12, ‘47. Plus 36. Weight 110, pulse 96-120. BP 130/98. Palpable enlargement of Isthmus of thyroid, and tender.

JAN. 14, ‘47. BQ 2cc 6x IM.

FEB. 6. ‘47. Weight 110. BP 130/98. Pulse 96 after climbing stairs. No episodes of rapid, pounding heart action since treatment. Only one headache since treatment; this represents definite improvement.

FEB. 25, ‘47. Weight 116. “I feel so much better.” Pulse 84, steady. No cardiac complaints. BP 142-94.

MAR. 17, ‘47. BMR Plus 14. Weight 118, without shoes. Thyroid Isthmus definitely smaller, and not tender. This patient is making a characteristic recovery.

MAY 19, ‘47. Symptom-free.

(39) P. C. white male age 43.
DEC. 19, ‘46. CC: **Influenza**, duration two weeks; aching all over, subnormal temperature. PX: Hemorrhagic mucosa nose and throat; bilateral acute catarrhal otitis media. Chills. BQ 2cc 6x IM stat.

DEC. 20. ’46. Temperature normal. No aches or pains. Ears practically symptom-free. Worked all day comfortably.

(40) P. D. white male age 35.
JAN. 10, ‘47. **Influenzal pneumonia**. Harsh breath sounds throughout chest. Hemorrhagic mucosa throughout nose and throat. Severe cough, chills, fever 103.5. BQ 2cc 6x IM stat.

JAN. 11, ‘47. Patient symptom-free; back to work all day farming.

(41) Mr. R. B. white female age 26.
NOV. 29. ‘46. CC: **loss of vision** OS 24 years. Acute complaint; swollen upper lip accompanying herpes infection in the nasal triangle. This swelling involves the entire upper lip and is of the type usually suspected of impending cavernous sinus invasion. Eye examination: no intra ocular pathology demonstrated in the left. Slight, transient axterrial squint, left. Past history includes severe pneumonia and empyema at age 18 months; surgically drained. As a child, the patient had a marked divergent squint, according to her report. During the past few years the eye has appeared to track grossly, and the squint has not been apparent unless patient got very tired or engaged in much close work, when the left eye would turn out. **AMBLYOPIA EX ANOPSIA. INCURABLE.**
Vision: OD 20/15. OS barely 20/200. BQ 2cc 6x IM. The swelling of the upper lip and the pain and soreness due to the **extensive herpes** infection completely disappeared within two hours after injection.

DEC. 13, ‘46. The Vision is OD 20/15. OS 20/7O. The patient reports that she has noted on awakening in the mornings, that she can clearly see the figures on her alarm clock with her left eye at a distance of 10 feet. Binocular vision; no overlapping or fuzziness of test letters. No phorias demonstrated. Images appear fused. Subsequent follow up has not been possible because the patient moved away.

(42) J. H. white female age 17.
JAN. 14, ‘47. History of **upper respiratory infection** one week’s duration, now involving the entire respiratory system. Temperature 101.0. Pulse 96. Pains throughout body, headache, pain in chest. Patient toxic, gray color: respirations 24:30 per minute. Breath sounds were harsh throughout. The skin showed marked blotchy mottling. Patient has a rheumatic fever background, with probably extensive kidney damage. Impression: **influenza**. BQ 2cc 6x IM stat. Within ten minutes the patient began to improve. Within the same time, color returned to the face, and the skin lost its blotchy gray appearance. A degree of animation was actually present within fifteen minutes.

JAN. 17, ‘47. Patient has returned to work as of this morning. Temperature, pulse and

respirations have been normal and the patient symptom-free for the previous 48 hours.

(43) M. B. white female age 12.
CC: **Chorioretinitis** from birth. Bilateral chronic purulent otitis media since age of 6. Frequent respiratory infections. Definite hearing loss. Discharge from ears so profuse that audiogram not esthetically practical. Polypoid mass growing out of left middle ear into canal. Patient has been a pupil for four years at the Binghamton Sight Saving School. PX Chorioretinitis, bilateral, confirmed. Vision, without correction: OD 20/200, OS 20/50. With refraction being worn (-/0.25 a 90 OD: OS -/0.62 a 60) Vision OD 20/200, OS 20/50, OU 20/50.

FEB. 17, '47. BQ 2cc 6x IM. Refracted, OS -/0.25 a 120, OS -/0.12 a 60. Vision, OU 20/50, but a little clearer.

APR. 25, '27. Vision OD 20/200 and very clear; definite subjective improvement is reported in clarity of the symbol. OS 20/40—an increase of one line on the chart, since FEB. 17, '47. Both ear canals completely dry; no discharge of any nature.

A letter has just been received from the Commission for the Blind, as follows: "Since Miss H. has previously been known to us as "Blind", our Home Teacher visited and learned that she was under your care and apparently her vision is greatly improved. in order to know whether or not we should continue service, will you be kind enough to complete the enclosed eye report blank and return at your earliest convenience."

(44) Mrs. A. L. white female age 57.
CC: **Intermittent fevers**. Repeated, severe attacks of tonsillitis and earache. Underweight. Gray, pasty color. No physical reserve.

OCT. 22, '46. BQ 2cc 6x IM.

MAY 17, '47. Has had no earache or tonsillitis since treatment. Has gained twenty pounds. Color excellent. Feels very well.

(45) S. B. white female age 3l.
CC: **Sneezing, epiphora cough, hoarseness**. Repeated attacks winter and summer. Not as a rule bothered out of doors, but on entering house, the symptoms begin almost immediately. PX: Nasal mucosa purplish gray. Skin tests; marked positive reactions to dog dander and cat hair. Also dwarf ragweed. Zinc sulfate ionization of a portion of the nasal mucosa, in combination with 100 mgms. Benadryl daily aided in controlling interim subjective discomfort, but did not protect from sharp reactions to exposure to cats and dogs, or even residual cat and dog hair about the house.

JAN. 10, '47. BQ 2cc 6x IM.

MAR. 28, '47. "This treatment has done me more good than any other treatment I ever had," the patient stated. Only occasional sneezing on direct exposure to cats and dogs. Nasal mucosa no longer purple; has resumed its normal pink coloring.

MAY 14, ‘47. Can now handle dogs in comfort.

(46) H. M. white female age 70.
CC: **Cataract**, advanced, right eye; incipient, left eye, has known that she had **diabetes** for the past twenty years, but has refused treatment for it. PX: dim tight perception, right eye: left eye shows one patch of diabetic retinitis, and a radial lenticular cataract, vacuolated. Vision: OD, none other than faint light perception to bright light: left, 20/400: cannot be improved by refraction. Blood sugar 312 mgms.%.

DEC. 31, ‘46. BQ 2cc 6x IM

MAR. 3, ‘47. Blood sugar 246 mgms %. No improvement in via on to date.

(47) S. L. white female age 39.
DEC. 24, ’46. CC: **Lesions on skin** of left hand. The entire left hand and wrist involved in typical flipper-type phlegmon. Swollen, red, shiny; marked itching and burning, with severe aching and pain in hand and arm. Duration, two weeks, becoming progressively worse. The pathology began as a brisk allergic reaction to a strong soap powder; as the skin broke down, secondary infection set in. Patient has been to another physician, who used large doses of penicillin without effect. BQ 2cc 6x IM stat.

DEC. 27. ‘46. Hand completely normal. All pain, swelling, redness has disappeared. Complete resolution in fifty hours.

(48) N. B. white female age 29.
First seen DEC. 1937, age 11: CC: loose cough since age 9 months, when she had pneumonia. Pale, sickly; frequent, severe headaches, nausea, severe cough, constipation; much thick yellow sputum; “growing pains” in legs complained of since she was old enough to walk. T & A age 6. Measles age 6. Chicken Pox age 8. Mumps age 9; severe Whooping Cough age 10. Was X-rayed age 5; 20 skin tests for allergens age 5. Ultraviolet lamp treatment for 3 months at age 3. PXH 57”: Wt, 8 lb. Proetz displacement of sinuses yielded 4 drams frank pus. X-ray report DEC. 8. ‘37: A homogeneous area of dense infiltration just lateral to cardiac, apex in left lung; extending medially behind heart shadow. Diagnosis: **primary, Childhood type TB of lungs**, suspected. History of exposure to TB. Admission to TB hospital, for study recommended.

DEC. 15, ‘37. Admitted to TB hospital Sputum negative. Diagnosis: **bronchiectasis, chronic, LLL.** (bronchograrms) Complications; pneumonitis sub-acute, LLL. Sinusitis, chronic, purulent; inter current complication, scarlet fever, cured; otitis media, bilateral, acute, suppurative, due to streptococcus, cured. Reason for discharge; maximum hospital benefit. Sputum contained spirochetes. “Lobectomy may be necessary to avoid what might become a crippling pulmonary infection in a few years.” quoted from TB hospital report.

MAR. 10, ‘38. Scarlet fever, hemolytic strep otitis media, bilat. Carried hemolytic strep in throat for many weeks after the usual quarantine period.

APR. 26, ‘38. Recurrences of headaches and purulent nasal discharge. Proetz displacement; frank pus recovered.

MAY 18, ‘38. Weight 84. No purulent discharge from sinuses.

JUNE 6, ‘38. Wt. 85.

JULY 6. ’38. Wt. 83 lbs. Recheck advised at TB hospital.

JULY 9, ‘38. “Right lung negative. Left lung; rhonchi. X-ray comparison with previous films shows no material change. (7 months), Advise bronchoscopic drainage.

JULY 25, ‘38. Bronchoscopic examination; extensive bronchiectasia, LLL.

AUG. 5, ‘38. Wt 82 lbs.

AUG. 13, ‘38. Wt. 81 lbs.

OCT. 6, 18. Sputum increased. Patient kept home from school in mornings for additional rest.

OCT. 20, ‘38. TB report: “It is thought that the guarantee of life and health will be greater if a left lower lobe lobectomy is done. It is doubtful that postural and bronchoscopic drainage or other palliative treatment will produce any permanent results, and that she will probably have recurring episodes of bronchial pneumonia and eventual pulmonary suppuration unless the diseased lobe is removed. Lobectomy is therefore recommended.” Parents refused surgery.

NOV. 10, ‘38. Wt. 84¾ lbs. Increased sputum. Purulent sinusitis flare-up. JAN. 24, ‘39. Wt. 86 lbs.

JUNE, ‘39. First katamema.

AUG., ‘39. Second katamenia.

Contact lost until APR. 7, ‘41: lung drainage marked: purulent sinusitis. Wt. 96 lbs.

JUNE 12, ‘41. Wt. 94 1/2 lbs.

FEB. 20, ‘42. TB Hosp. “No great change in abnormal density of LLL: a little more pneumonitis at the present time” Contact lost until-

MAY 14, ‘46. Age 20. Height 5’ 4 1/4”, wt 115 lbs. Patient still draining same amount or more. Recently, retrosternal pain on deep breathing. Extremely nervous. Recheck X-ray advised.

MAY 20, ‘46. TB Hosp. “X-ray: no material change. Persistent density along the descending trunks on left. Recommendations: symptoms referable to lungs may have increased slightly. This would appear to be a suitable case for consideration of lobectomy, but apparently this has been

declined to date."

SEPT. 16, '46. X-ray this office. No change. 2 cc. parabenzoquinone IM.

SEPT. 22, '46. Wt, 116. Drainage is reported as less. Patient states. "I feel fine."

OCT. 4, '46. The sputum is definitely thinner. No pus from nose. No headaches. One piping rale left base, which disappears on coughing. Patient looks very well, and states that she feels excellent most of the time.

DEC. 27, '26. No rales heard.

FEB. 15, '47. No rales. X-ray today shows marked diminution in the markings at the left base, and marked resolution of the surrounding pneumonitis. This plate shows the least amount of X-ray pathology ever shown on any picture taken of this patient.

MAY 19. '47. Patient is now working as switchboard operator. No complaints.

(49) E. M. white female age 29.
MAR. 25, '47. CC: annual, severe bouts of **hay fever** since childhood. Epidermal tests done at age 10 showed sensitivity marked, to orchard grass, June grass, timothy, plantain, sweet vernal No known food allergy. This woman's daughter, age 4, has the same symptoms as her mother, and at the same time. Has been under medical care for bee hay fever. Symptoms of both usually begin second week in May. Patient has had annual pre-seasonal and seasonal desensitization treatment in attempt to control symptoms, since age 10, but relief has been slight some years, and frequently absent. FH: Mother had frequent, severe attacks of hives. Father's brother had severe asthma. A sister's son is an epileptic. The patient's daughter had severe seasonal hay fever and carsickness. Patient shows perennial vasomotor rhinitis.

MAR. 27, '47. BQ 6x 2cc IM.

APR. 15, '47. Patient reports that her daughter was already sneezing severely. Patient is completely symptom-free.

MAY 17, '47. Daughter continues to show marked allergic symptoms—sneezing, coryza, epiphora, etc. Patient remains completely symptom-free.

(50) L. A. white female age 5l. (nurse)
JAN. 27, '47. PH: measles. Chicken pox, chronic purulent sinusitis since childhood. Migraine since childhood, mumps, scarlet fever, belching of gas since adolescent. Typhoid fever age 24; with bowel hemorrhages: 4 months, followed by septicemia phlebitis both arms and both legs, in 1915. Phlebitis flared again 1917. Dec. 1917, ovarian cyst removed, uterine suspension, appendectomy. 1927, severe heart attack. Hospitalized 1932; acute rheumatic fever: life despaired of, 15 years ago for another severe heart attack. A third severe attack ten years ago, requiring hospitalization again, then another, more severe than the others, in 1944: marked hypertension (230); diagnosis, **AORTIC SCLEROSIS: DILATION OF DESCENDING**

AORTA: MODERATE LEFT VENTRICULAR AND AURICULAR ENLARGEMENT SUGGESTING AORTIC VALCTJLAR DISEASE; marked clubbing of nails. Severe pains since, in left chest, left arm, and left side of neck, frequent bouts, every day. More severe past six months. Edema in legs. No L radial pulse for past 2 years. BQ 6x 2cc IM.

MAR. 19, '47. Radial pulse left arm is now strong. Pain, formerly practically continuous; now markedly reduced in frequency and in intensity. Patient states that for the entire week following the injection of BQ she had no pain whatsoever, and felt so well she cleaned house, exceeded her reserve, and precipitated recurrence of attacks. BP 180/120. Color improved. Several large "**cancer spots**" so diagnosed by several physicians, which had been present for many years and getting larger, have completely disappeared. Also a **large callosity covering right elbow** has disappeared. **Hemorrhoids**, marked duration many years, have steadily diminished in size. No headaches or migraine since treatment. **Colitis**, present for past 25 years, severe, with cramps requiring narcotic control, has completely disappeared. **Phlebitis** left leg and left arm of years' duration diminishing: periphlebitic masses smaller.

MAR. 23, '47. Color improving. Patient recalls that since the age of 14, she has never been able to eat apples or corn without violent gastrointestinal upsets with emesis and severe pain. She has now for several weeks been able to eat both apples and corn without any discomfort whatsoever. No edema of legs. Patient also states she has had no sense of smell for many years: couldn't even smell pipe smoke, and food had been tasteless; she can now smell very well indeed, and she is now able to taste her food. Is traveling now from Brooklyn to Bronx Park East to attend church.

APR. 10, '47. " I am in general better." Fewer attacks of pain. Severe constipation for past fifteen years, requiring daily dose of salts. Patient is now having an occasional natural movement without the use of enema. "I am stronger and healthier." All pain disappeared from region of old fracture, left ankle. "My eyesight is improved: I have hardly any blind days."

This patient continues to make characteristic recovery. Report from her brother in letter of MAY 20, '47, "Louise is doing better than we had any right to expect."

(51) C. M. white male age 44.
DEC. 2. '46. CC: **Nasal polyps**, bilateral, recurrent, for many years. Excised: re-growth. PX: Two large polyps visible; appear to originate in antra of High-more. Complete obstruction of airways bilaterally and impingement: of polyps on inferior turbinate and floor of inferior meatus. Nasal mucosa purple, boggy. Continual sneezing, winter and summer; severe bouts, to point of nasal hemorrhage.

DEC. 3, '46. BQ 6x 2cc IM.

JAN. 10. '47. No blocking of airways. Mucosa normal in color. Polyps could not be visualized.

FEB. 27, 47. CC: Flopping sensation in left nostril. Examination: showed small pedunculated polyp swinging from the left antrum int. the middle meatus.

MAY 17, ‘47. The polyp above mentioned has disappeared. No nasal obstruction. No longer sneezing.

(52) B. M. white male age 46.
Repeated crops of boils in the nose since 1941. Fiery red. scalin skin lesions covering entire face, superimposed on a very densely irdurated subcutaneous tissue. Skin especially thickened over cheekbones and beside the nose. Lahey Clinic treated this patient, in addition to many private physicians; lesions continued to spread. By JAN. 6, ’47, had covered the forehead.

JAN. 6, ‘47. 2cc BQ 6x IM.

JAN. 31. ‘47. Definite improvement subjectively and objectively. Over the previously densely involved skin of the forehead on isolated areas of papillary induration and redness now appear. Fiery redness definitely reduced. Reduction in induration around nasal folds. Skin approaches normal in all other areas. Crusting and infection inside nostrils completely cleared: no residual soreness

APR. 25, ‘47. All induration and scaling gone from skin over bridge of nose. Relatively slight residual induration of cheek tissue. Sharply limited to areas overlying malar bones.

MAY 17, ‘47. No return of injection in nose. Skin of face is not sore, tender, itching or burning, as previously. Left cheek practically clear of lesions, except 2 sq. cm area over malar bone.

(53) Mrs. A. P. white female age 63.
Observed since DEC. 12, ‘45. CC: **High blood pressure, corpulent sinusitis**, severe headaches. **Phlebitis**, left leg. Chronic enlargement and tenderness of cervical lymph glands. BP 210/130. Complete blocking of airways on left; 5O% blocking on the right, with a—mucopurulent discharge bilaterally. Puffiness around eyes. Nasal mucosa boggy, purplish color, markedly turgid. Peripheral circulation deficient-feet and hands continually cold. Patient tires very easily. Ptosis of right upper lid. Many types of therapy were employed in attempt in clean up the chronic purulent sinusitis, but to no avail. Headaches and blocked airways continued to be a major problem.

DEC. 5, ‘46. BQ 2cc 6x IM.

DEC. 23, ‘46 Headaches gone. Occasional twinge of pain over left eye. Patient obviously much improved in general and stated, “If it hadn’t been for that treatment you gave me, I don’t think I would be alive today.”

APR. 13, ‘47. Still some slight heavy mucoid discharge from nose; no pus seen. No ankle swelling. Definite reduction in varicosities and pain left leg. Purplish areas, formerly present on left ankle, have faded out. Cervical lymph glands, formerly much enlarged, are definitely reduced in size; not tender. BP 144/108. Nasal mucosa no longer a gray-purple: now a definite pink color.