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**A New Method of Treatment of
Breast Cancer Based on Ob-
servations Concerning the
Nature and Causes of
Recurrence.**

by

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Dr. STROBEL has removed
his offices, No. 17 E. 88th St.
New York City



A NEW METHOD OF TREATMENT OF
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SERVATIONS CONCERNING THE
NATURE AND CAUSES OF
RECURRENCE.

C. W. STROBELL, M.D.,

Attending Surgeon, Rutland City Hospital.

RUTLAND, VERMONT.

The operation to be described consists essentially in the systematic chemic devitalization and removal of the entire cancerous breast painlessly and in a scientific manner, but without the use of general anesthetics.

Surgeons of to-day who have had practical experience with both methods are quite unanimously of the opinion that the end-results of chemic surgery of cancerous growths of the surface of the body are about as satisfactory as those of operative surgery. Granting this to be true the chemic cure contains *a valuable modicum of scientific truth*. The work I herewith present, covering a period of fourteen years, has grown out of an original attempt to utilize this modicum of truth, by applying it scientifically, thinking that in this direction perhaps might be found the secret of non-recurrence. In order that my position as regards the cause of cancer may be known at the outset I will say that I am a firm believer in its infectiousness from without by a specific organism, possibly as yet unknown. Clinically, and in view of the lack of definite knowledge on this point, it does not particularly concern us at this time to be able to name the germ. We do know, however, that cancer be-

haves like an infection, and that unchecked it kills the patient by gradual encroachment on the functions of vital organs. We also know that the eradication of the infectious material must be complete or our efforts will be in vain.

Apropos of infection, Eisen's "Cancriforme Moeba Macroglossa" so completely tallies with all the clinical phenomena attending the onset, spread and recurrence of carcinoma that we have in it an ideal working hypothesis in our warfare against this disease.

For a masterly working exposition of this particular subject the reader is referred to an article entitled "Is Cancer Contagious?" by J. Lapthorn Smith, M.D., M.R.C.S., Eng., published in the *International Journal of Surgery*, December, 1906, from which the five appended illustrations are reproduced. (See Eisen's Figs. 1, 2, 3, 4, 5.)

The great problem in the cancer question to-day as yesterday is *recurrence*. Something favors recurrence. What is this something? To know this is to know how to avoid it.

It invites attention to some well-known facts regarding cancer of the breast; also, to certain important personal observations, upon which this method is founded. There are probably, roughly estimated, twenty-five thousand cases of cancer of the breast in the United States to-day.

In round numbers sixty out of every one hundred selected cases operated upon by our best men will be dead or dying within three years after the excision operation, *from recurrence of the disease*. Moreover, it is generally conceded that an additional twenty of every such hundred will be dead or dying by the end of five years from the same cause. As

confirmatory of this statement statistics of thirteen of the best operators of this country are appended:

Year.			Cases.	Either dead or had recurrence with- in three years.	Passed three-year limit without re- currence.
1891	Dennis	reported	116	64	52
1895	Bull	"	118	87	31
1907	Myer	"	86	43	43
"	Mass. Gen. Hosp.	"	376	288	88
"	Halsted	"	232	143	89
"	Rodman	"	25	21	4
"	Oliver	"	35	23	12
"	Ochsner	"	164	125	39
"	Pilcher	"	18	14	4
"	Jonas	"	177	72	105
"	Jacobson	"	71	35	36
"	Cabot	"	42	28	14
"	Vanderveer	"	103	33	70
			1563	976	587

Thus $62\frac{1}{2}$ per cent. were dead, or had recurrence within the three years following operation; $37\frac{1}{2}$ per cent. only passed the three-year limit without recurrence following operation.

THE RÔLE RECURRENCE PLAYS.

Consider what this means to the thousands of mothers, nearly all in the prime of life, and the terrible rôle recurrence plays, and say if free excision is an adequate solution of the breast cancer problem—I think not. Something more scientific and reliable must replace it.

WOMEN FEAR THE EXCISION METHOD AND ARE SKEPTICAL OF THE RESULTS.

Women thus afflicted are apt to hide their cancers until too late, because of the widespread fear of

the operation itself, and because of the universal lack of confidence in ultimate results as regards recurrence.

Could we offer these women an operation that is thoroughly scientific, without the use of general anesthesia, practically painless, safe, and that consistently holds out reasonable prospects of freedom from recurrence, would they not come earlier?

AXILLARY GLANDS SUBSIDE.

I have noticed a remarkable fact in the progress

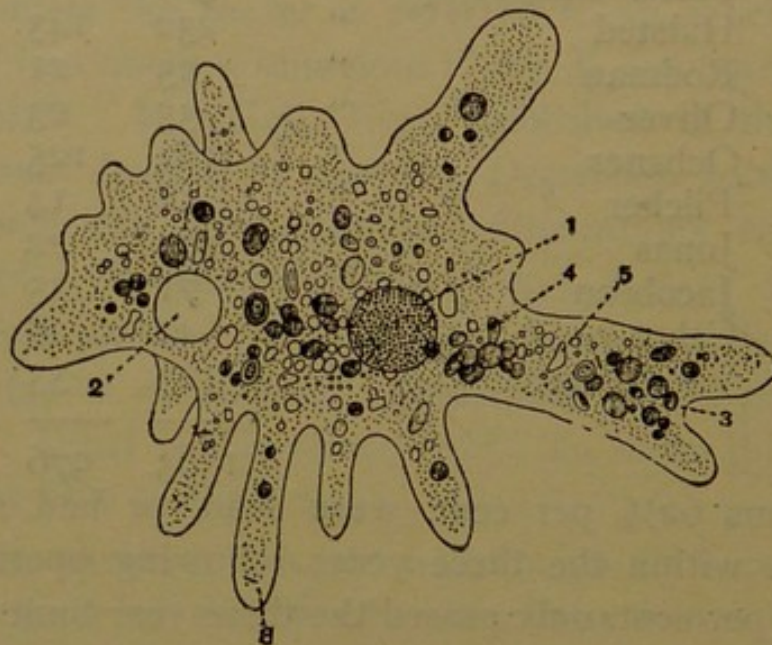


Fig. 1. (Eisen). *Amoeba proteus* \times 330. From Gruber.
1. Nucleus. 2. Contractile vacuole. 3. Pseudopodia, the dotted line points to the clear ectoplasm. 4. Food vacuoles. 5. Grains of sand.

of this work, namely, that in all the seven cases herewith reported, with a single exception, the *enlarged axillary lymph glands have subsided and become impalpable upon removal of the affected breast*. This could not well have been the case had these glands also contained active cancerous deposits, unless upon the theory of their destruction and elimination by the formation and action of an autogenous vaccine. I have therefrom inferred

that while the disease is still local or regional, axillary lymph nodes are engorged with deleterious matters from the periphery of the growth—the field of active tissue metabolism and phagocytosis; or they present varying degrees of inflammation or

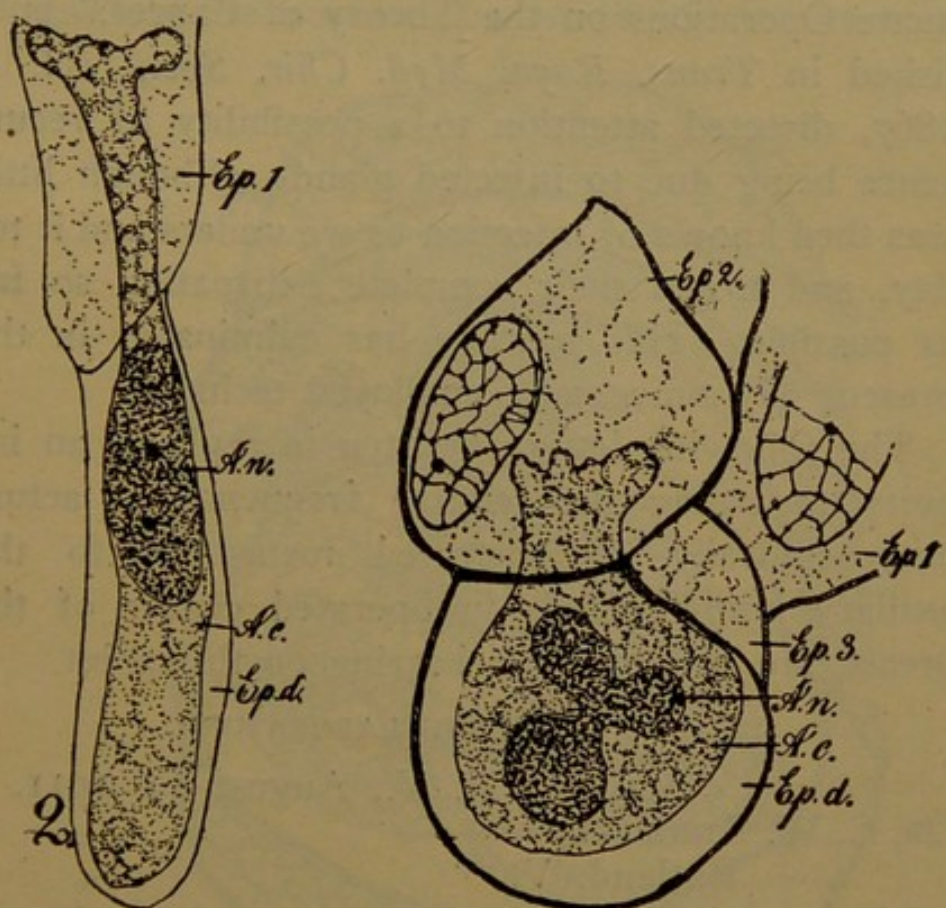


Fig. 2. (Eisen). Ep. d. Epithelial cell destroyed, forming a vacuole and occupied by A. c., an elongated cancriamœba which has extended a pseudopodia into another epithelial cell Ep. 1, and has commenced the absorption of its contents through its crenulated and flared extremity. A. n., Nucleus of the cancriamœba in which are seen three nucleoli.

Fig. 3. (Eisen). Ep. 2. An epithelial cell containing a nucleus. The cell is just entered by the cancriamœba, A. c.

A. n. Polymorphous nucleus of the cancriamœba. Ep. d. Epithelial cell destroyed, having been "eaten out" by the cancriamœba, thus forming a vacuole in which it lies.

hyperplasia as a result thereof, the same as occurs in lymph nodes in the vicinity of many pathological conditions, such nodes subsiding upon the removal or cure of the causative condition. This fact relative to the subsidence of enlarged lymph glands

could not have been observed following the classical operations, because *axillary lymph nodes have for forty-five years been religiously dissected out*, in accordance with the recommendation of Charles Moore, a surgeon of Middlesex Hospital, London. Mr. Moore, in a paper on "The Influence of Inadequate Operations on the Theory of Cancer," published in *Trans. Royal Med. Chir. Soc.*, Vol. 1, 1867, directed attention to a possibility of recurrence being due to infected glands, although little was then known of infection as we understand it to-day, and urged their complete extirpation so far as possible. This practice has culminated in the present day universally employed technic.

The following letters, written in reply to an inquiry regarding the relative frequency of actual microscopically demonstrated metastasis to the axillary lymph glands in operated cancer of the breast, are of interest as bearing on this point.

BENDER HYGIENIC LABORATORY.

ALBANY, N. Y., August 29, 1911.

DR. C. W. STROBELL,
Rutland, Vt.

MY DEAR DOCTOR:—In reply to your inquiry of August 28 concerning enlarged glands adjacent to malignant tumors, I would say that occasionally the glands may be palpable or even moderately enlarged, and microscopic sections of them reveal varying degrees of hyperplasia and chronic inflammatory changes. Of course, only serial section of the entire gland could exclude the presence of actual cancer cell metastases. The exact proportion of such cases I am unable to state offhand, but this could be easily determined by analysis of our records of such cases.

Yours very truly,
(Signed) THOMAS ORDWAY.

LABORATORY OF HYGIENE.
Vermont State Board of Health.

BURLINGTON, Vt., October 2, 1911.

C. W. STROBELL, M.D.,
Rutland, Vt.

DEAR DOCTOR:—In answer to your inquiry regarding the number of cases in which I have found

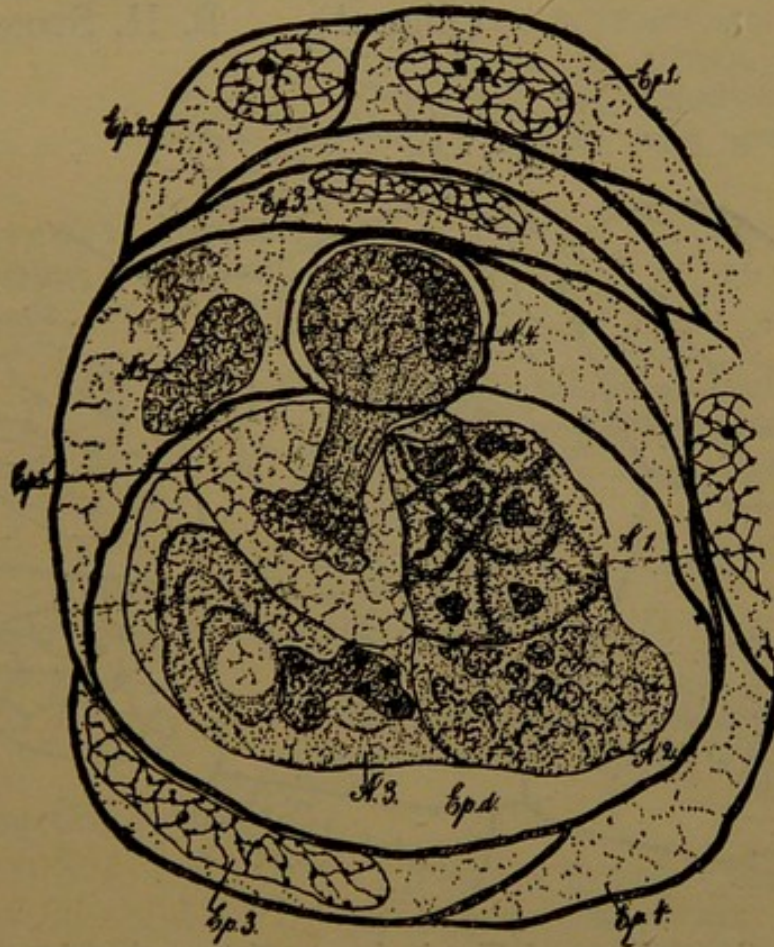


Fig. 4. (Eisen). Ep. d. A large vacuole formed by the destruction of several epithelial cells and occupied by three cancriamœba in various stages of sporulation, the whole forming the center of a cancer nest. A. 3. A cancriamœba containing a vacuole, and its nucleus is polymorphous. A. 4. A cancriamœba which has extended a pseudopodia into the epithelial cell Ep. 5 and is eagerly devouring its nucleus, for which it seems to have a special liking. A. 5. A small section of a cancriamœba within an epithelial cell. Ep. 1. 2. 3. Epithelial cells not yet destroyed by the cancriamœba. You will note their flattened and lunated shape, caused by the pressure of enlarging and proliferating cells a little farther away. The heavy cell walls are caused by their chitinization.

a malignant involvement of the axillary glands in cases of cancer of the breast, I beg to say that I have had comparatively little occasion to determine this matter. Our surgeons usually being content

with the diagnosis of the primary tumor very seldom submit the associated glands. I find on looking through a series of 70 malignant breast cases, that 10 included an examination of the axillary glands. In all of these cases the glands showed undoubtedly a malignant infiltration. I suspect that this high percentage is due to the fact that only the very suspicious glands were sent to me.

Very truly yours,

(Signed) B. H. STONE.

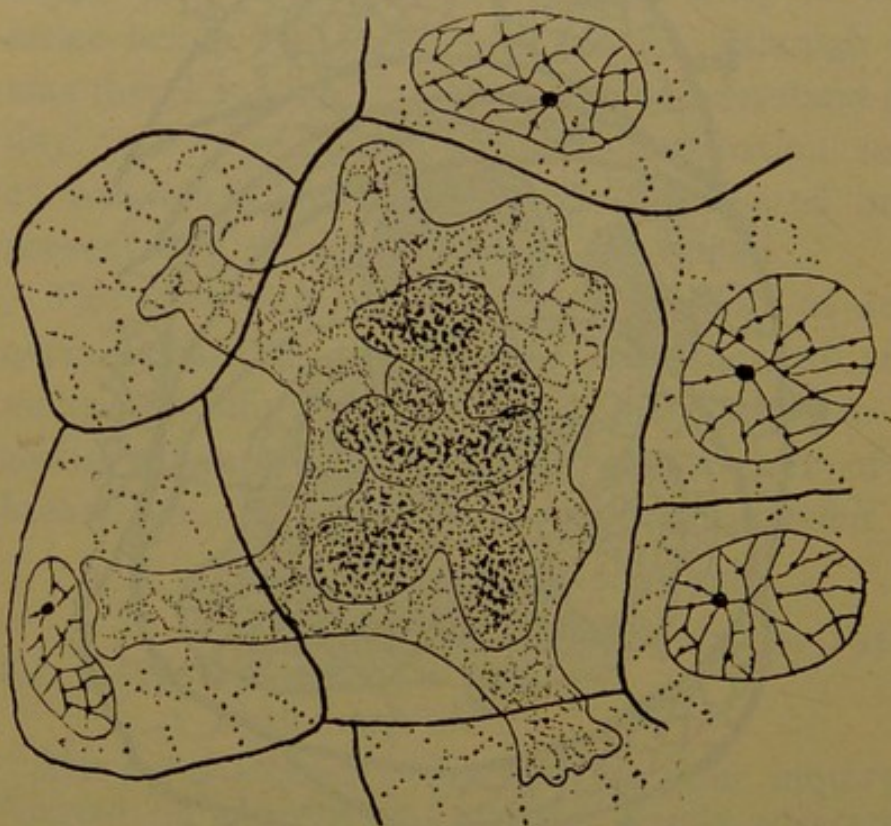


Fig. 5. Copy of one of Eisen's figures of "*cancrionæba macroglossa*" to show relative size of cells, "snout," etc. (From 5th annual report of Cancer Laboratory, New York State.)

As bearing upon the foregoing is appended the results of a study into the relative frequency of involvement of the axillary lymphatic glands in cancer of the breast. In quest of this data, during the months of September and October, 1911, I personally examined all the breast cancer records on file at the pathological laboratories in connection with the following named institutions, with the

exception of those at the Laboratory of Hygiene at Burlington, Vt., the statistics of which were kindly worked out for me by its director, Dr. B. H. Stone.

The Royal Victoria
Hospital, Montreal,
Canada:

67 Positive, in breast and glands
70 Negative in glands, 34 ax.
glands mx. negative; 36 no
ax. glands with specimens.

Montreal General
Hospital, Montreal,
Canada:

26 Positive, in breast and glands.
47 Negative, 18 ax. glands mx.
negative; 29 no mention of
glands.

Free Hospital for
Women, Boston,
Mass.:

22 Positive, in breast and glands.
16 Negative, in glands.

Boston City Hospital:

74 Positive, in breast and glands.
207 Negative, 39 no mx. evidence
in glands; 168 no glands ac-
companied specimens.

Laboratory of Hy-
giene, Burlington,
Vt. (Records exam-
ined by Dr. Stone.
See letter above:

10 Positive, in breast and glands.
60 Negative, no glands accom-
panied the breast specimens
in these 60 cases.

Bender Hygienic Laboratory,
Albany,
N. Y.:

- 229 Positive, in breast and glands.
237 Negative, in approximately
one-half of this number no
glands accompanied the Br.
Specs. Those examined
showed no mx. evidence of
cancer.

1065

Thus relatively but 428 cases showed microscopic evidence of metastasis to the lymph nodes accompanying the specimens.

Two hundred and twenty-five gave no microscopic evidence of metastasis to the lymph nodes accompanying the specimens.

In the remaining 412 cases no glands accompanied the specimens, and it would seem fair to infer therefrom that the glands were not appreciably enlarged.

Approximately then only 40 per cent. proved a positive metastasis to the axillary lymph nodes, while 60 per cent. were negative.

An interesting observation in connection with the Bender laboratory records was that of the 63 last recorded cases examined, covering a period of two years, only 11 (eleven) were credited with metastasis to axillary glands.

The effect of such a study is to strengthen belief in the theory advanced in this paper regarding the manner of recurrence, namely, that *extirpation of enlarged axillary lymph nodes is of far less importance in the removal of the operable cancerous breast than is the avoidance of excision traumatism of the surrounding healthy tissues*. And this is borne out in the statement of Piersol, that "85 per cent. of recurrences in cancer of the breast are in

the chest wall, and 15 per cent. only in the axilla." Why such frequent recurrence in the chest wall where there are no large glands, and only 15 per cent. in the axilla where lymph nodes abound?

RECURRENCE USUALLY IN EDGES OF INCISION.

I have been impressed with the fact, *that recurrence after operations for cancer of the breast is almost invariably in the line of incision and suture.* Furthermore that this occurs notwith-

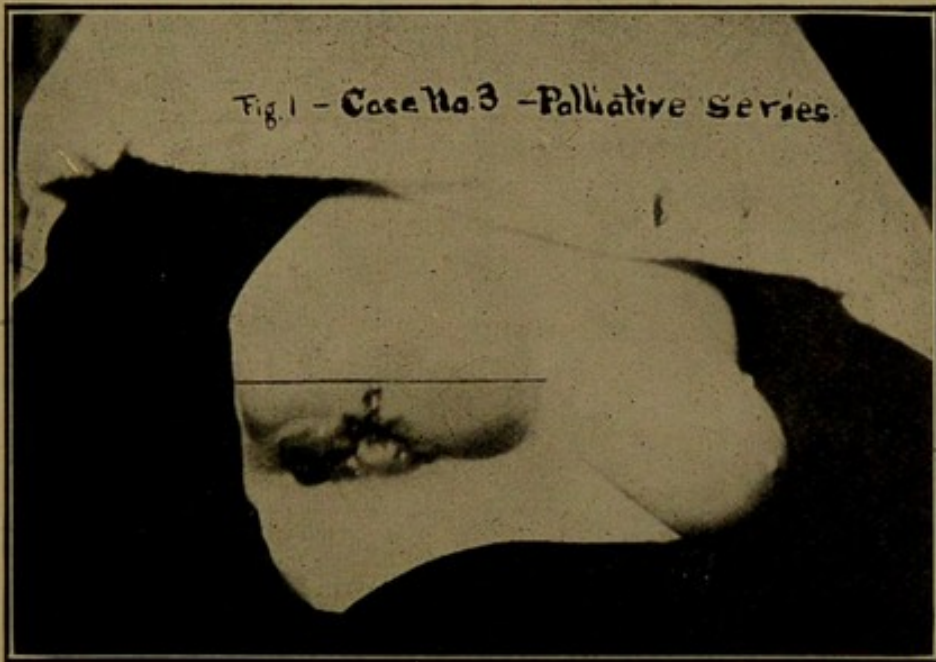


Fig. 1.

standing the fact that operators always seek to cut through perfectly healthy tissues, as witness the extensive sweep of the scalpel in the Halsted-Myer technic, the most perfected and comprehensive of its kind.

LYMPH NORMALLY GERMICIDAL TO THE SPECIFIC
PARASITE?

I believe that in the early or *operable stages* of the disease, before the bodily forces are weakened, the lymphatic glands, vessels, tissue and lymph spaces are able of their own germicidal fluids, and

unbroken endothelial lining, to accomplish the destruction of infected cells floating their way, themselves escaping infection; but that in the presence of such traumatism as excision involves reinfection may occur.

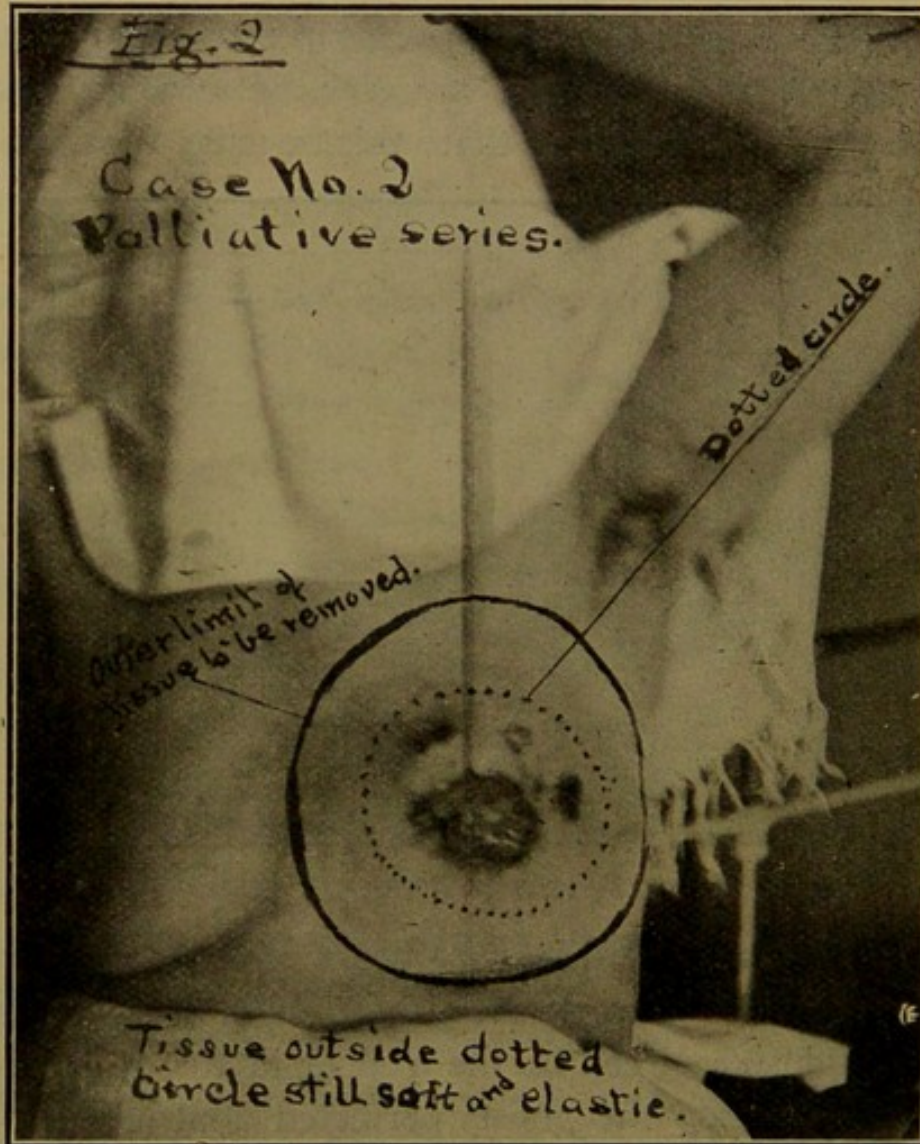


Fig. 2.

DOES OPERATIVE MANIPULATION FAVOR REINFECTION?

Infective fluids pervade the breast and surrounding tissues, like a water-soaked sponge, therefore care in handling the tissues during an excision operation will make but slight difference in the

result. *The knife must sever the continuity of the fluids as well as the tissues holding them, hence infection is almost inevitable because of the manner of the traumatism.*

The proximal traumatized tissue taken unawares has not had time to establish defenses and is thus

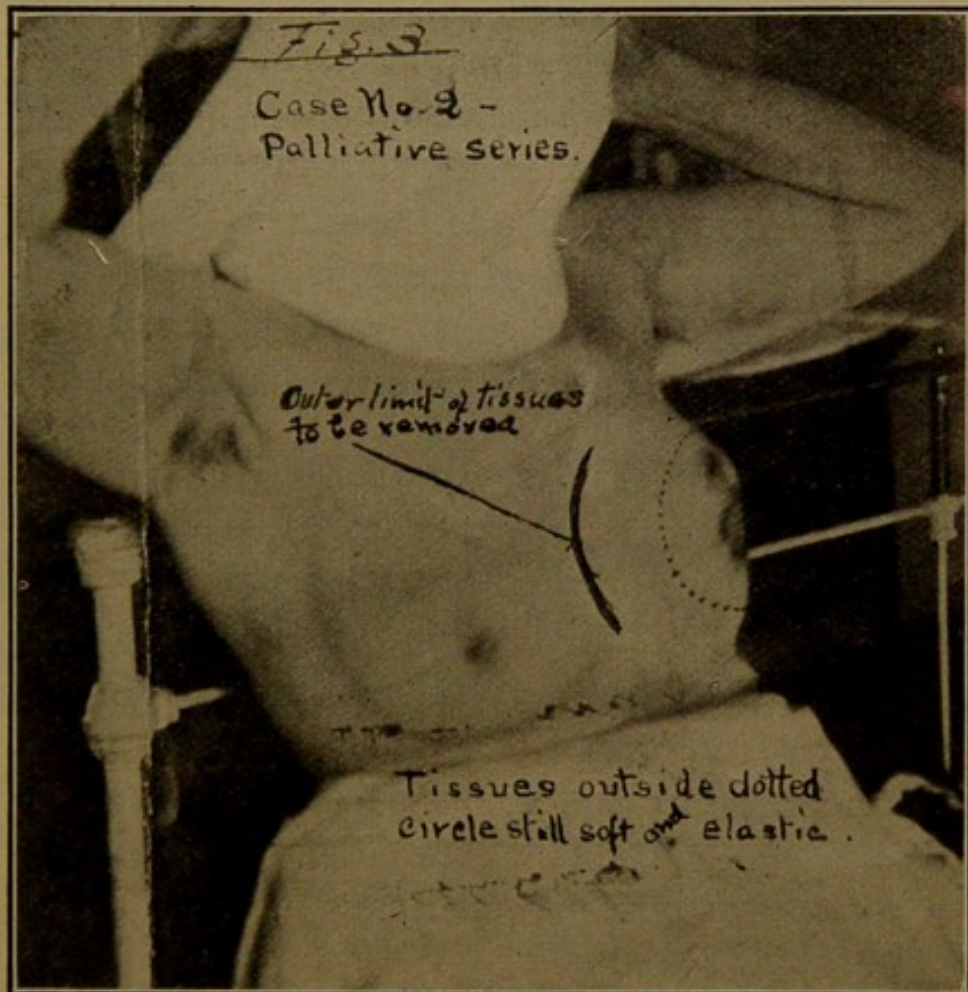


Fig. 3.

utterly at the mercy of the infective agent abounding in the fluids unavoidably bathing the wound.

A STRIKING FACT

is that even in the most favorable and early cases, where the cancerous induration is barely discernible, and the diagnosis not microscopically confirmed until after the operation—where no lym-

phatics are enlarged, and where the knife is made to go far outside and away from the little tumor, through perfectly healthy tissues—there will be the usual percentage of recurrence of the disease in the sutured edges of this tissue. Whereas, *had the cut not been made, and the patient allowed to finally die of her cancer, without interference, the disease would not have appeared in the particular zone of healthy tissues through which the knife would have gone*, except as an extension outwardly from the particular quadrant of breast affected. Thus even *at death* a large portion of the zone through which the scalpel “would have gone” years before, would still be soft and free from cancerous involvement.

To illustrate: (Fig. 1, from Case No. 3, palliative series—a most extreme case).—The lower hemisphere of the affected breast was an ulcerated, scirrhus mass, while that portion lying above a horizontal plane, drawn from right to left through the center of the breast had retained all its natural resiliency, contour and coloring; in fact, was perfectly healthy—and this within possibly two months of a threatened fatal termination.

Figs. 2 and 3 from palliative case No. 2 is a still better illustration in that the cancerous area is centrally located. The woman, as may be judged from the illustration and history, was also within a very few weeks of death when she came for examination. As late in the case as this *the tissues outside of the dotted circle were soft as ever, and without palpable evidence of induration or involvement*. This patient had first noticed the trouble about three years previous to the consultation.

CHEMIC SURGERY OF THE CANCEROUS BREAST.

The operation here indicated proceeds upon the general assumption that at least until the border line separating regional from general dissemination is reached all carcinomata of the breast are oper-

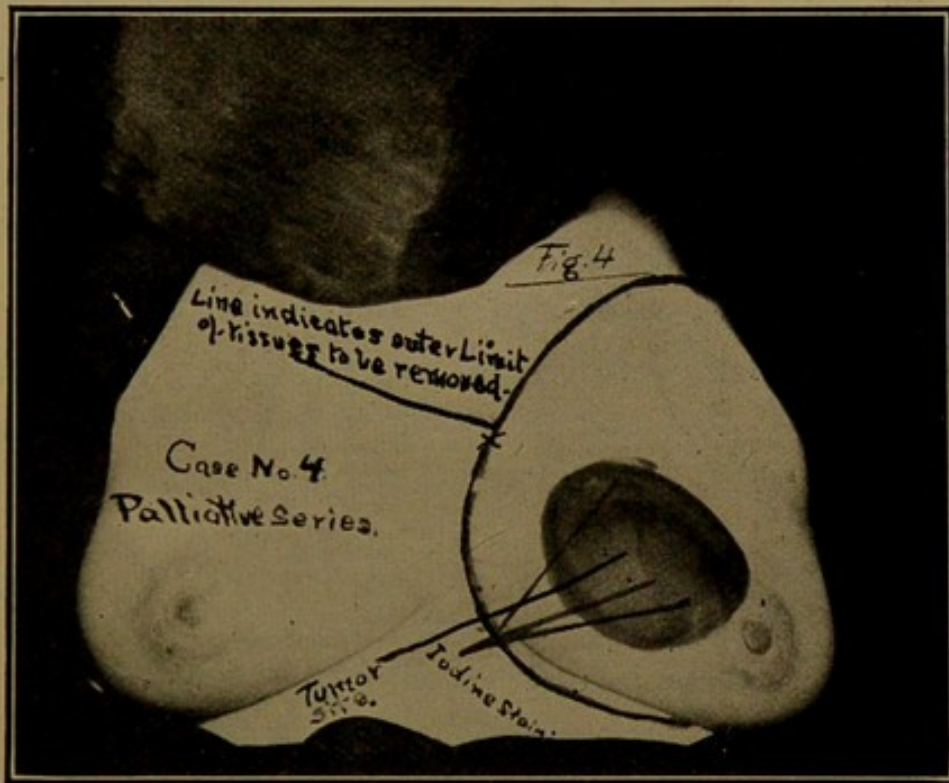


Fig. 4.

able, *i. e.*, curable. Further observation must determine the limitations of chemic surgery in the so-called "hopeless" cases, in view of the glandular phenomena observed in the progress of the work.

OBJECT, TO INSURE AGAINST RECURRENCE.

The object of chemic surgery is to painlessly yet with the full consciousness of the patient remove the entire affected breast, including sufficient of the surrounding healthy tissue to *insure against recurrence*. (Figs. 4, 5.)

PERFECTLY UNDER CONTROL.

This chemical dissection is accurately guided and absolutely under control at all times. It may be

continued with perfect safety as leisurely, as deeply, and as extensively as required. Moreover, there is no danger from hemorrhage or sepsis in skilled hands. (Figs. 6, 7.)

HOW THE METHOD OPERATES.

The chemic method operates essentially by blocking and sealing all vascular communications be-

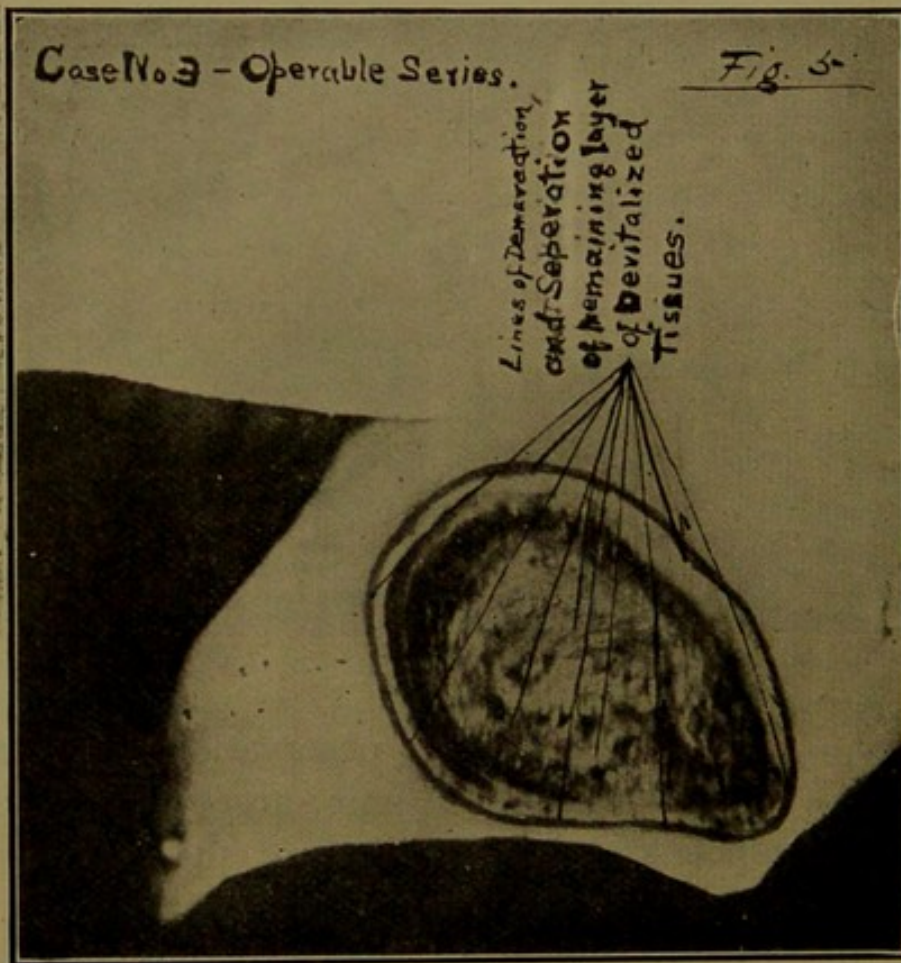


Fig. 5.

tween the condemned area and the surrounding healthy tissues. All lymphatic and bloodvessels, lymph channels and tissue spaces of Meltzer are thus "walled off" by the resultant phagocytosis along the arbitrarily established line of demarcation, the condemned structures being *damped out* or chemically devitalized, and systematically re-

moved; *the removal keeping accurate pace with the devitalization from day to day.* Infected cells left floating in the lymph outside the "line of demarcation" are, presumably, physiologically disposed of as before the operation; or as already stated, and as seems probable, because of the disappearance of the greatly enlarged axillary lymph nodes in more especially, the four far advanced cases—that there is "formation of an autogenous vaccine." (Figs. 8, 9.)

SAVES ANATOMIC STRUCTURES.

The chemic method avoids much of the extensive dissection of the Halsted-Myer technic, in which operation the breast, all but a few fibers of the upper part of the pectoralis major muscle, all of the pectoralis minor muscle, and all the lymph nodes in the axillary and adjacent regions are removed, *the necessity for which this method does not recognize* in view of the previously mentioned observations. To be sure, by the chemic method also, the entire affected mammary gland, including an adequate underlying and outlying zone of healthy tissues as "factor of safety" may be removed. When, however, the healing process is completed the physical capacity and function of the corresponding upper extremity are unimpaired, as are also the anatomical relations and physiological functions of the axillary lymph nodes. (See Figs. 10, 11.) Furthermore, and best of all, we know that there has been no reinfection due to the operation.

The general health immediately takes an upward trend, showing rapid improvement coincidentally with the removal of the infected tissues. All the physiological functions show the effect of release

from the depression of long continued toxic absorption.

BEST METHOD TO USE IN RECURRENCE FOLLOWING
EXCISION.

The chemic method should always be employed in *recurrence* following the classical excision of the breast, provided, however, the seat of such re-

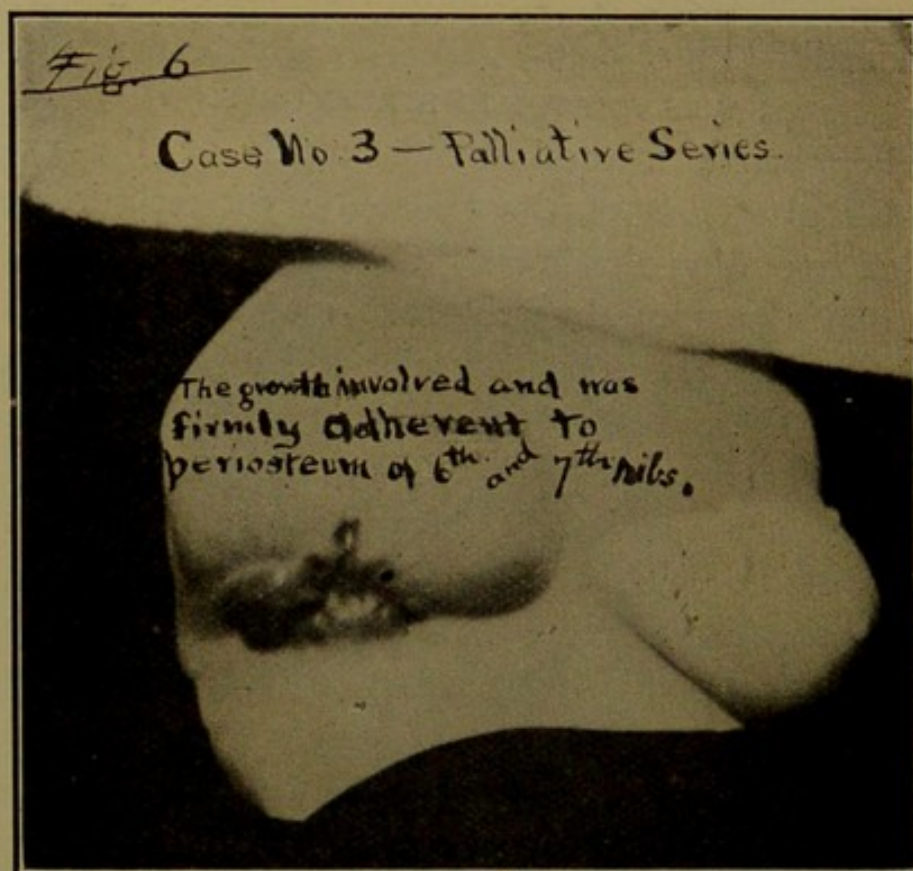


Fig. 6.

currence is in the chest wall and not in the axillary or cervical regions as there proximity of large bloodvessels makes its use inadvisable. Fortunately for chemic surgery, however, Piersol's relative recurrence, previously alluded to, encourages the belief that "85 per cent. of recurrences" may safely and effectively be reached by this method, *if attacked early.*

SAFETY OF THE METHOD.

The chemic method of removal requires no general anesthetic such as ether or chloroform. It opens no fresh avenues of infection. The operation is more scientific and more certain than the ex-

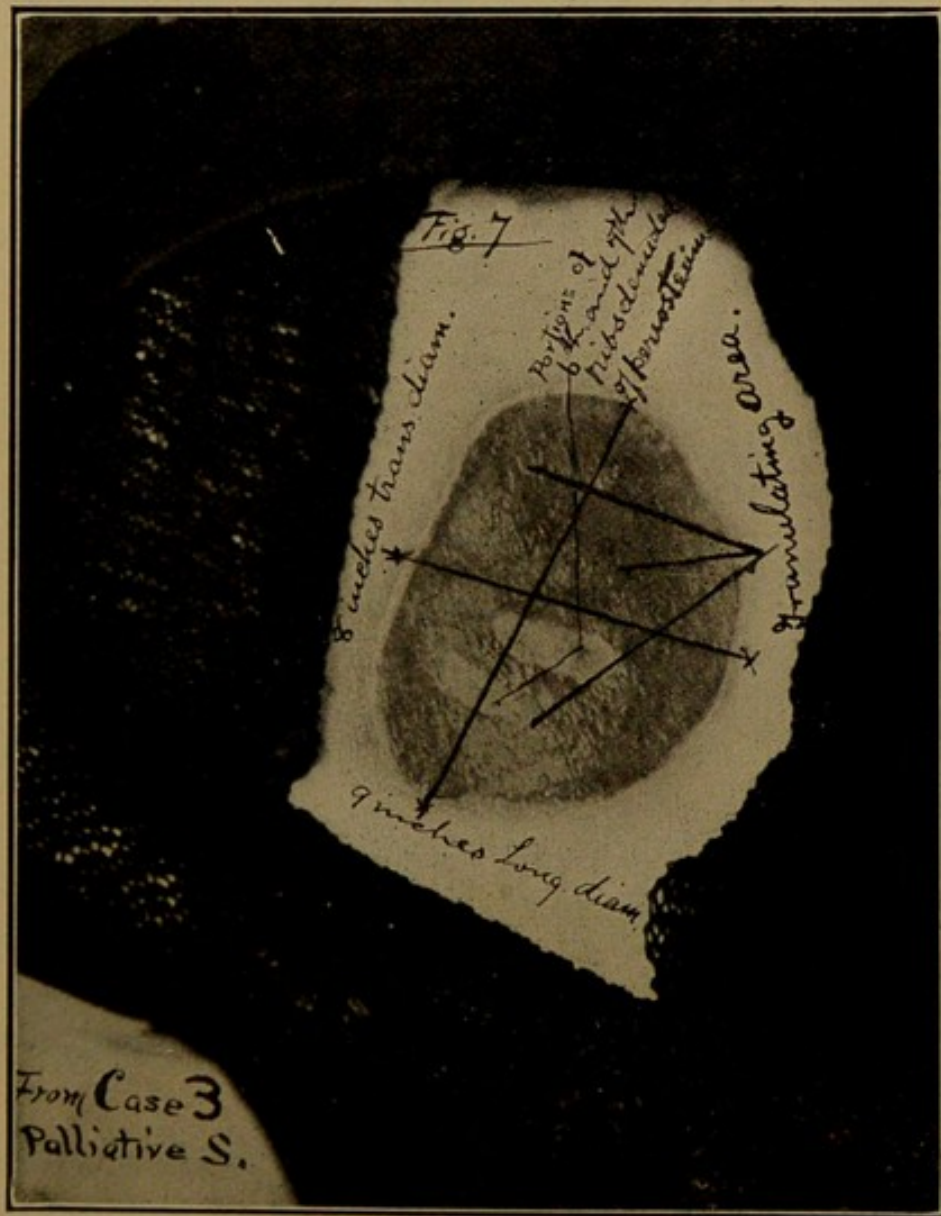


Fig. 7.

cision method, though not so brilliant in point of rapidity of execution. At its finish, however, the beautiful platter-like granulating surface, inviting to a skin graft, would enthuse the most skeptical. There is also, let me repeat, no danger from the

operation in the hands of a competent surgeon—no sepsis, no hemorrhage, neither any actual pain—*considerable discomfort especially in neurasthenics, there will be necessarily*, the same as under the classical operation. Sleep is usually not disturbed, nor is the appetite. During the removal the patient almost invariably is in condition to participate in

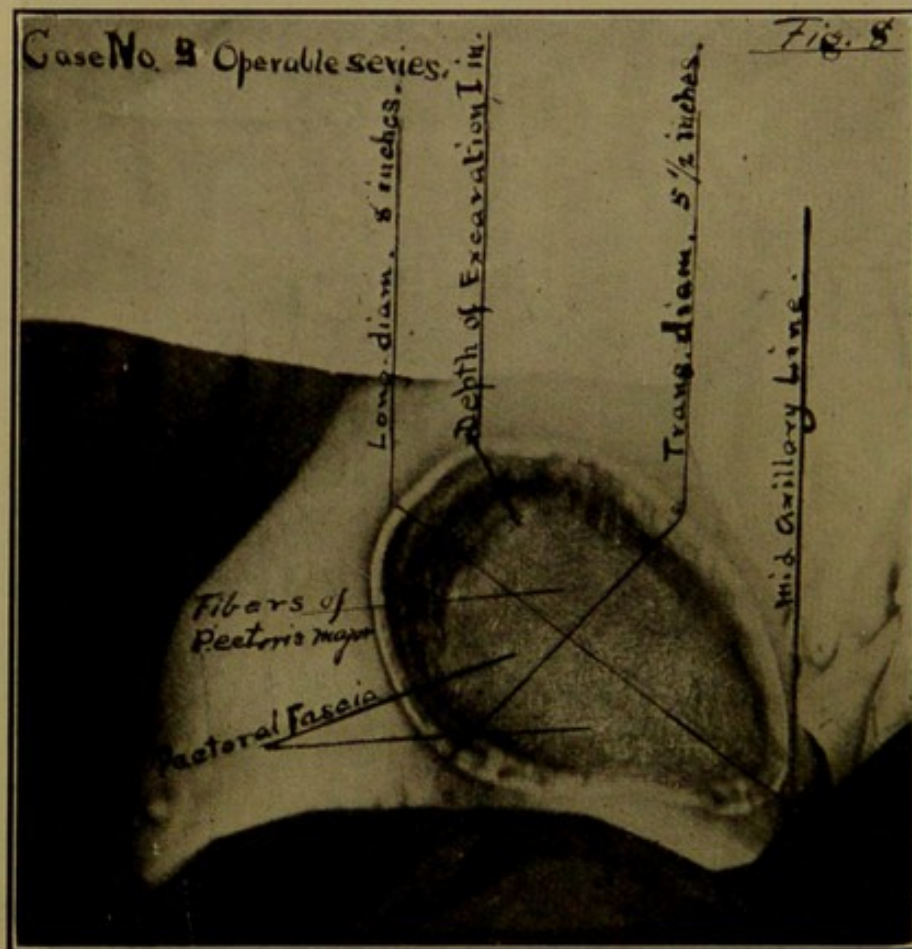


Fig. 8.

cheerful conversation, on topics entirely foreign to the work being done, being usually meanwhile a most interested observer of the operation itself. Skin grafting after Ochsner is done painlessly, and under the full consciousness and observation of the patient. The grafts all "take" and the new skin becomes soft, pliable and freely movable upon the underlying chest wall. The chest wall is not

"bound down," nor is respiration impeded in the least. (Figs. 12, 13, 14, 15.)

EXCISION FACILITATES INFECTION.

In common with other surgeons I have performed the Halsted excision in cancer of the breast many times, and with about the same unsatisfactory results. My conclusion is that the *excursion of the instrument somehow facilitates infection of this*

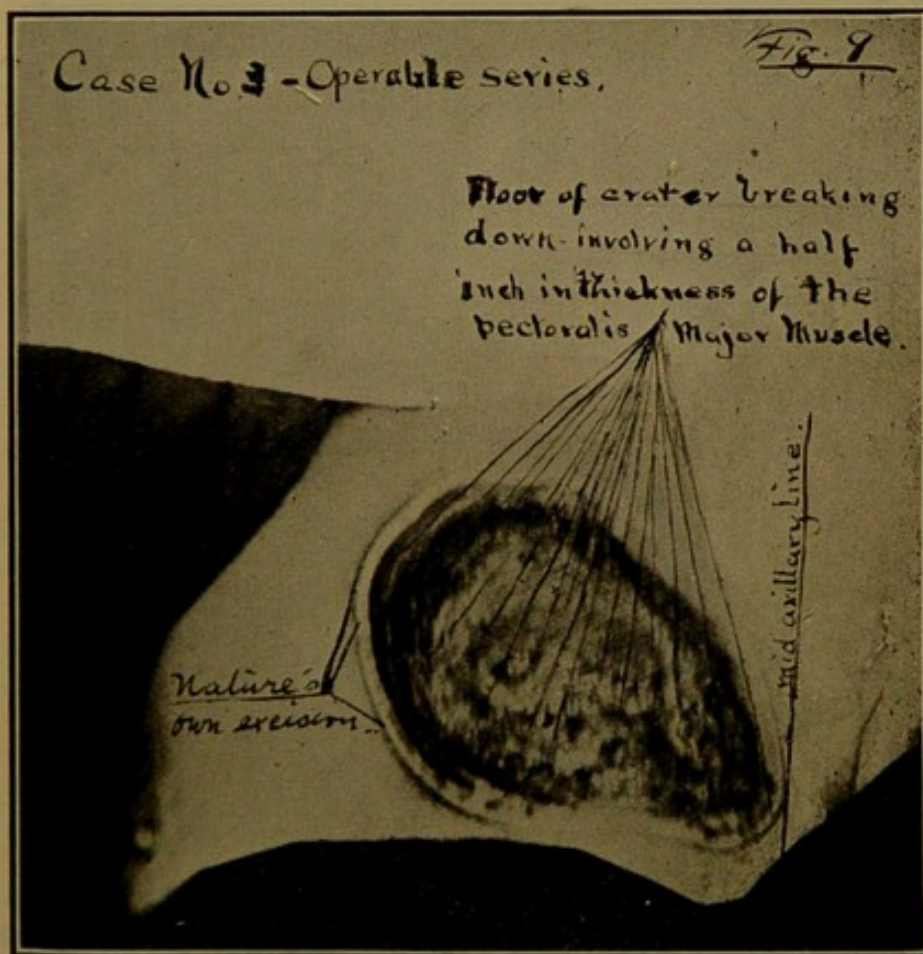


Fig. 9.

healthy tissue, as thereby thousands of lymphatic tubes, lymph and tissue spaces are divided, furnishing atria of fresh infection in their cut surfaces.

FRESH EXCISION INVITES FRESH INFECTION.

Another observation is that in recurrence following the Halsted-Myer excision where the surgeon

does a secondary operation, in the great majority of cases there follows a fresh recurrence; a third excision is followed by a third recurrence. and so on, until the patient dies. Why is this? I think because each fresh *excision invites fresh infection.*

TECHNICS.

General Precautions.

First and foremost the patient should be cared

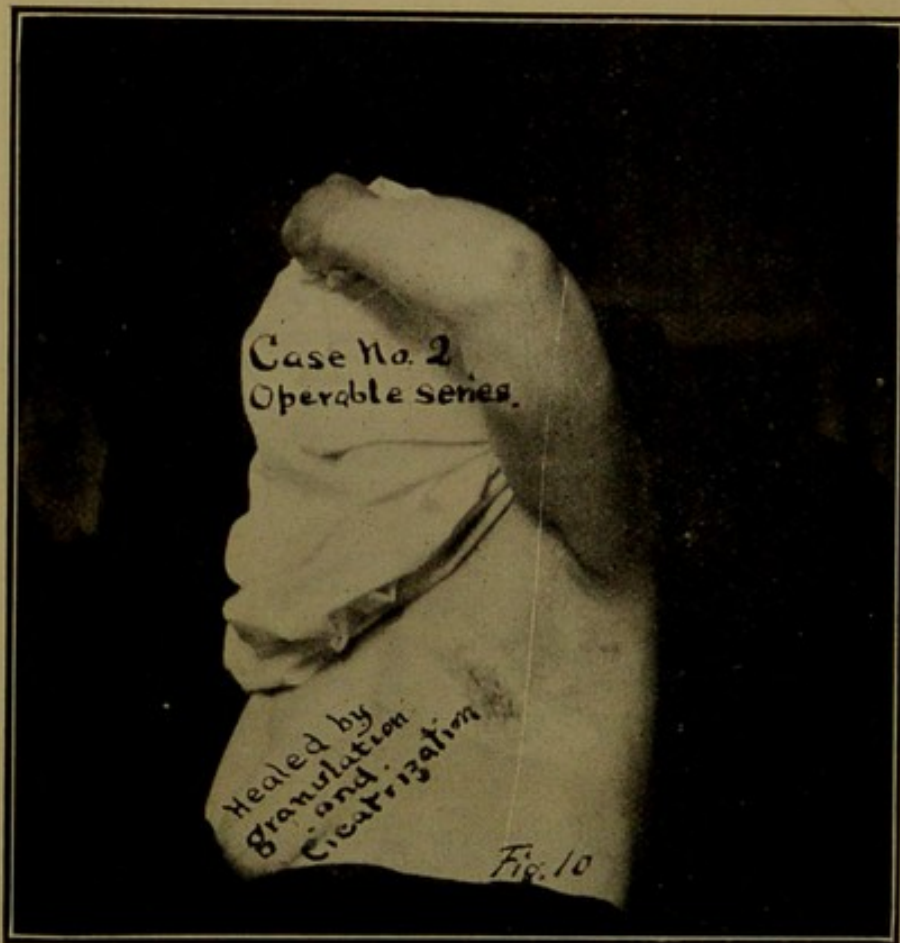


Fig. 10.

for by a trained surgical nurse exactly as in any surgical case, keeping accurate records of temperature, pulse, respiration and the functioning of the eliminating organs. The nurse should be exceedingly careful to confine the action of the chemic agent to within the limits so carefully set for it. This will require vigilance and the sufficiently fre-

quent change of fresh dry absorbent cotton—mainly below the breast—to prevent the freely draining fluids from coming in contact with the skin, or even to moisten the cotton strips placed there for its protection. Should the strips become moistened with the fluids much pain will result *which would not be due to the operation but to defective technic.* She should always prepare

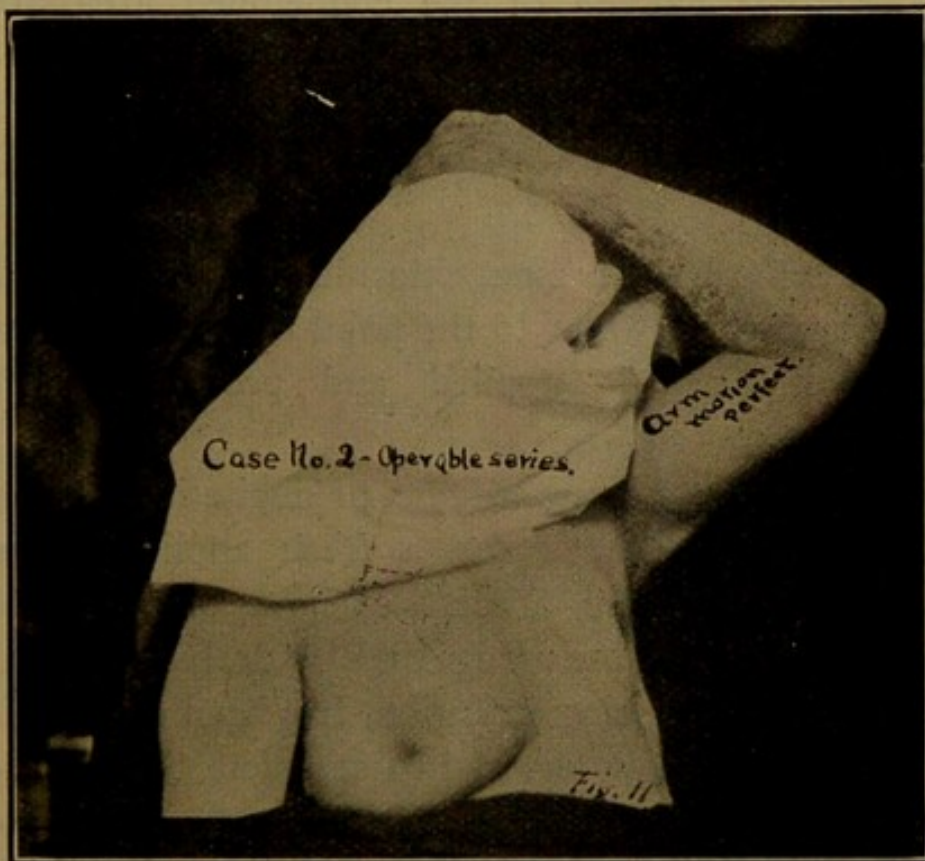


Fig. 11.

aseptically for the surgeon's visit the same as for any surgical dressing, having in readiness sterile cotton gloves, gown, instruments, hand solution, towels, gauzes, cotton, etc., and where the house is electrically lighted a "drop" light should be at hand. The patient should be placed in a good, strong light.

1. Cocaine, 40 per cent. solution, is driven into the segregated area by phoresis, the anode of the gal-

vanic current being at the breast while the cathode is connected with a large dispersing pad on the back. As high as 200 m.a. of current may be used varying with the susceptibility of the patient. This cocainization properly and thoroughly executed, step No. 2 should be absolutely painless.

2. The cuticle is then destroyed with caustic potash.

3. Tissues outside of the condemned area are properly protected from accidental chemical contact by means of strips of cotton flannel saturated with flour paste. (A very important part of the technic.)

4. A mixture of zinc chloride with powdered sanguinaria plus water to the point of proper working consistency is applied and protected with dressings.

5. In 24 or 48 hours a layer of devitalized tissue is aseptically removed and a fresh application is made, repeating the process each 24 hours until the entire breast, including such underlying tissue as might be harboring infection, has been removed.

6. Nature is now allowed to complete the operation in her own way, *i. e.*, by phagocytosis, establishing its own line of offense and defense the while sealing all possible ports of entry against reinfection; and finally casting off the dead from the living, leaving a smooth granulating surface. Strict asepsis should be maintained throughout.

7. Skin grafting after Ochsner is done under cocaine cataphoresis safely and painlessly, the patient herself contributing the grafts, being the while a most interested spectator. This grafting properly timed and performed, the grafts all "take" and the new skin—in due time—becomes freely movable upon its new base.

8. This chemic operation is a surgeon's "job" and will tax all his faculties and technical skill. One who has not these acquired qualifications had better not undertake it. The painlessness and success of the operation depend upon a perfect technic. So performed, it is a most scientific procedure, and invites the investigation of the medical profession. The seven cases thus far operated upon by the chemic method are as follows:

THREE OPERABLE CASES.

CASE I.—October 20, 1898. Mrs. R., American, aged 56 years, multipara. Ulcerating carcinoma, lower inner quadrant of the left breast, size of green gage plum; enlarged axillary lymphatic, severe lancinating pains. Operated by chemic method (incomplete technic); recurred in four months; operated again with modified technic. Smooth recovery; axillary glands disappeared; lived eight and a half years without recurrence, and finally dropped dead of heart disease, while seemingly in the best of health. I had from time to time taken physicians in to see this most interesting first case.

CASE II.—March 20, 1907. Mrs. B., American, aged 45 years, nullipara. Carcinoma of the left breast, size of small hen's egg. Lancinating pains for months, retracted nipple; tumor adherent—enlarged axillary lymphatics. X-rayed for three months. No material progress. Began enlarging again. The modified chemic operation was done; lymphatics disappeared and healing took place quite rapidly. This woman is alive and well without a sign of recurrence, five years and five months after the operation. She has gained 25 pounds in weight, and has done all her own housework since. The aponeurosis of the pectoralis major was removed. (See Figs. 10, 11.) No pathological examination was made.

CASE III.—January 10, 1912. Mrs. F., American, aged 67 years, multipara. Highly neuras-

thenic. Patient stated that seven months ago while pulling at a root in the flower garden she had sudden, severe pain in her left breast, and upon examination discovered a "bunch." This "bunch" had been growing ever since and had caused much discomfort, especially when the arm was raised up over her head. Mrs. F. had been progressively

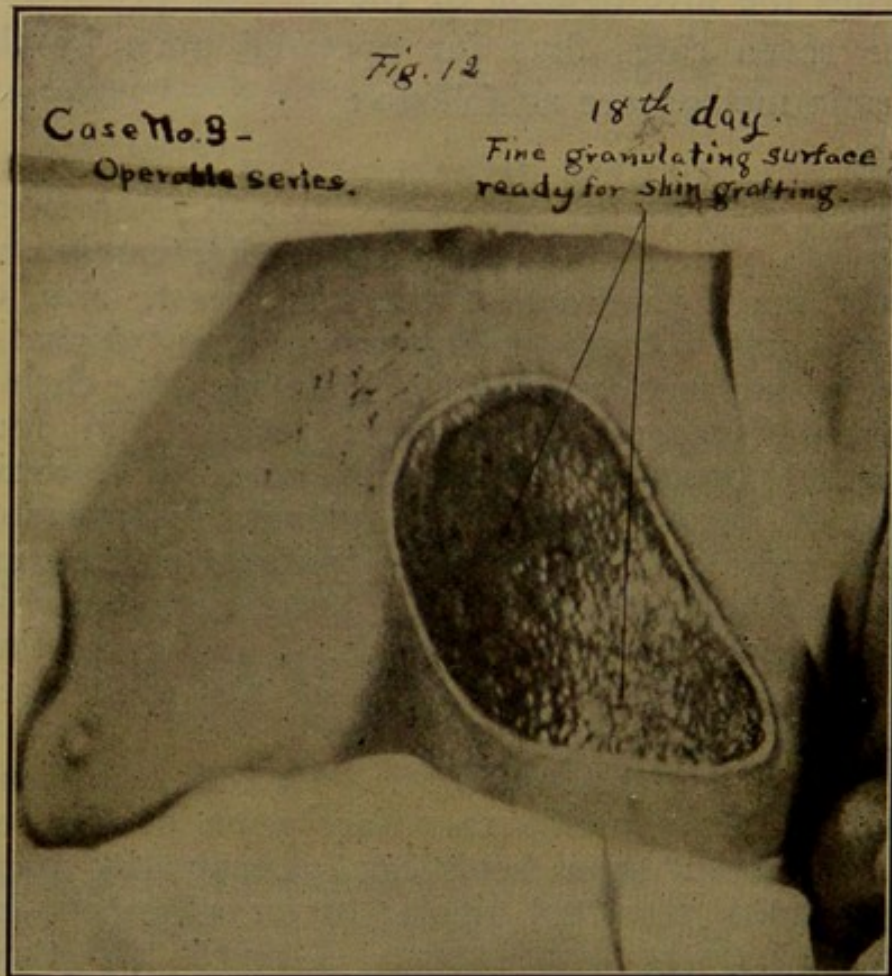


Fig. 12.

losing in weight for the past year. She was otherwise quite well and active.

Examination. Both breasts were small and somewhat atrophied. A tumor the size and somewhat the shape of a checker was located in the peripheral upper and inner quadrant of the left breast. The growth was not very sensitive to pressure—more so when pushed sideways. Its shape was circular with irregular edges and it felt as though it had already contracted adhesions to the

fascia underneath. The tumor was hard and contracted, lymphatic glands considerably enlarged. Diagnosis, carcinoma of the breast. Post-operative mx. diagnosis by the Bender Laboratory, Albany, confirmed my findings. The entire breast, including a half inch layer of the pectoralis major muscle, was removed. (Figs. 8, 9.) Much nervousness and restlessness was present throughout the treatment. Chronic insomnia also helped to add to her discomfort, but on the whole everything went along

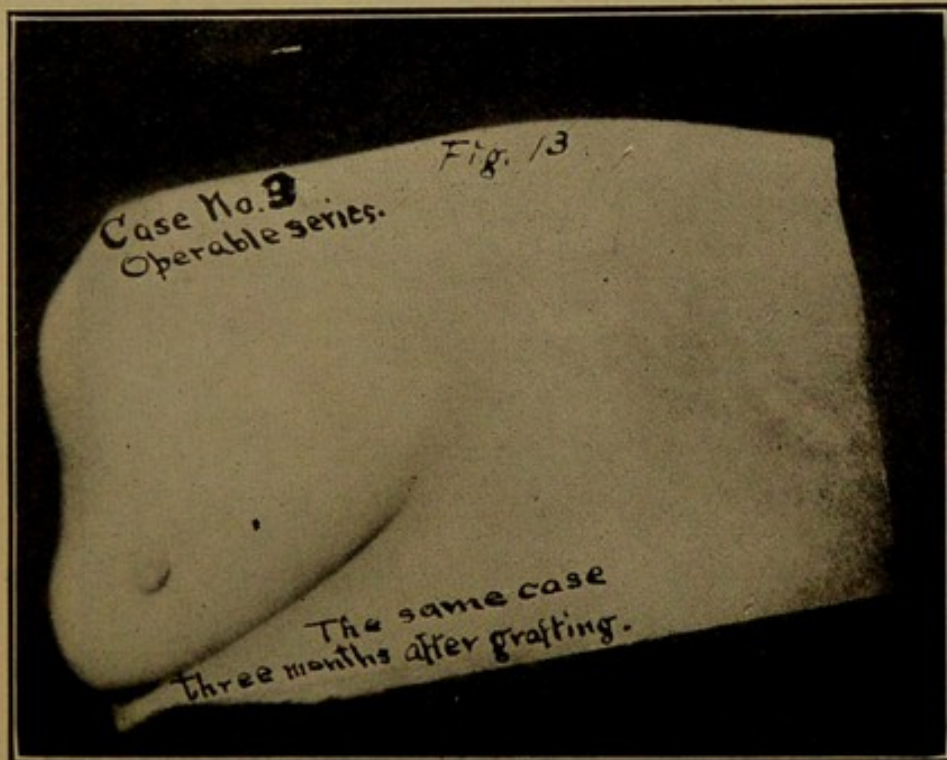


Fig. 13.

well. On the twenty-first day under cocaine anesthesia skin grafting modified after Ochsner was done, painlessly and with perfect success—every graft “taking.” Photograph taken three months thereafter shows a most beautiful result. (Figs. 12, 13.) Patient seems perfectly well. No limitation of arm motion, nor disability whatsoever. Enlargement of axillary glands totally disappeared. Weight of tissue removed, 12 ounces. Specimen

REPORT OF FOUR PALLIATIVE CASES.

CASE I.—January 1, 1907, Mrs. G., aged 74 years, American, multipara, weighing 275 pounds, bed rid-

den, chronic invalid from an old fractured hip. The left breast was a great ulcerous, foul-smelling mass. Axillary glands very greatly enlarged—one node especially so. The palliative operation was offered and accepted. After removal of the breast, the process was extended to include the large lymph node, which was accomplished without much difficulty. Healing advanced smoothly and the woman regained as good a degree of health and comfort as was possible under the circumstances. She lived six months thereafter in great comfort,



Fig. 14.

but was finally taken with static pneumonia, and died in less than three days. There was absolutely no sign of a recurrence, either at the site of the operation or anywhere else. Nor was there any indication that death was due in any way to metastasis. *Axillary glands had completely disappeared.*

CASE II.—July 13, 1910. Mrs. P., American, 64 years of age, multipara. Came a long distance, and had to be carried from the depot to the office. Subject to severe attacks of sciatic rheumatism. Defective heart valves, pulse 120, temperature $99\frac{1}{2}$, severe pain in both hips. Slight chills. Darting pains in the left breast. Left breast side of a large,

ulcerating cancerous mass, excavated to the depth of one and a half inches, transverse diameter two and a half inches. Edges and bottom of crater necrotic, and gave off considerable discharge and odor. Axillary lymphatics greatly enlarged. Photo. taken (Fig. 2, 3), also specimens for pathologist, Dr. C. A. Ball, of Rutland, Vt., who later reported scirrhus carcinoma. The tumor mass and surrounding tissue, including the pectoral fascia (two and a half pounds in all) were then removed. It was interesting to see how the heart and temperature steadied down by the time the removal was completed. As in the other cases, no general

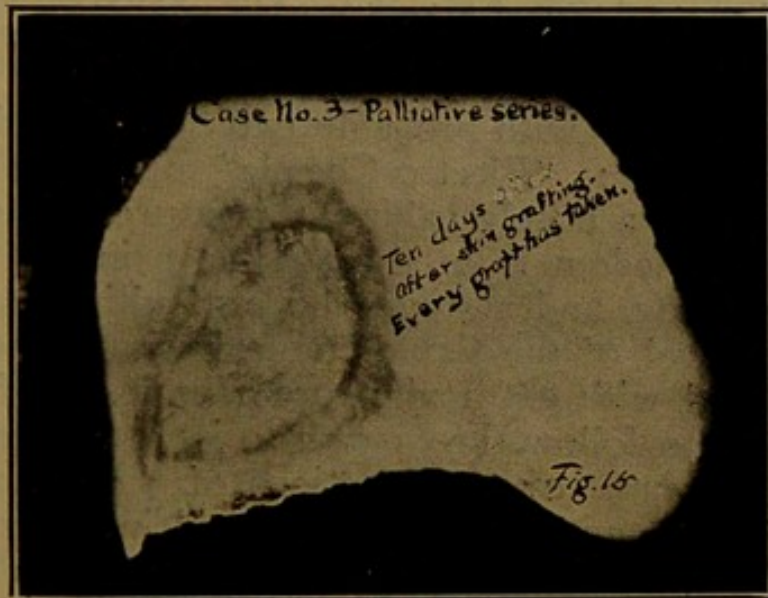


Fig. 15.

anesthetics nor anodynes were used, because not needed. Mrs. P. went home feeling almost new. *The axillary glands had entirely disappeared.* The breast was *x*-rayed for two months thereafter. Five months after the removal she died. I wrote to her physician for particulars and he replied: "There was no reappearance of the cancer; she had a severe recurrence of sciatica, and her hypertrophied heart at last succumbed." This last sickness was of three days duration.

CASE III.—March 10, 1912. Mrs. B., aged 57 years, multipara. First noticed a "bunch" in the lower outer quadrant of the right breast about

seven years ago. The tumor had grown slowly but persistently up to the above date. An examination showed an ulcerous mass involving the entire lower half of the right breast the diameter of a medium sized fist. The growth showed contracted bands in various directions; was drawn downward and under and was firmly fixed to the chest wall. The nipple had disappeared, the surface was ulcerated and suppurating, bled easily upon merely touching it. A strong odor emanated from the growth and the mass was more or less the constant seat of excruciating, stabbing, boring and darting pains. Axillary glands were found to be much enlarged and tender. (See Fig. 6.) The general health was at a very low ebb. She was extremely neurasthenic, cachectic and emaciated. Altogether a most "forlorn hope," with probably two more months of life left her: "Electro-Chemic" operation was suggested as a purely palliative measure that could give her freedom from the terrible pain and general suffering, and a strong hope of ultimate cure. The removal of the tissues of necessity proceeded slowly and with extra vigilance; for it was found necessary to follow the growth to its attachment to the periosteum covering portions of the sixth and seventh ribs, and also the perichondrium covering about an inch of the sixth chondral cartilage. (See illustration, Figs. 6 and 7.) The devitalized periosteum and perichondrium eventually separated from the post costal and chondral portions at the upper and lower rib margins. Skin grafting was done six weeks from the outset of the treatment with a perfect result, all grafts "taking." Ten days later the edges of the grafts and the surrounding zone of skin had coalesced. (See illustration, Figs. 14 and 15.) *The axillary glands had completely subsided and seemed absolutely normal.* The patient was entirely free from all her old pains, and was rapidly regaining health and strength, with a very decided improvement in her general morale and outlook on life.

CASE IV.—May 14, 1911. Mrs. B., American,

aged 48 years, multipara. In this case an indurated, irregular mass the size of a bantam egg occupied the inner upper quadrant of the left breast. The tumor was quite sore to the touch and radiated pains toward the left shoulder. Axillary lymphatics considerably enlarged and sore to pressure, and had been for about three months. In this case a half inch layer of the pectoralis major muscle was also removed. This woman made a smooth recovery. The axillary glands subsided.

Directing pathologist, Dr. Thomas Ordway, of the Bender Laboratory, Albany, N. Y., reported cancer. Specimen preserved. August 15, 1912, shows small cancerous nodule in upper and outer quadrant of the opposite breast with accompanying enlargement of the lymphatic glands on both sides of the neck and in both axillae. Unfavorable prognosis (Fig. 4).

SUMMARY.

file OPERATIVE SERIES.

One case (No. 1) lived eight and one-half years in good health and without recurrence. Dropped dead in the street from heart disease. No autopsy. Axillary glands had disappeared.

One case (No. 2) living and perfectly well after five years and five months. Axillary glands have disappeared. Gained 25 pounds in weight.

One case (No. 3) living and perfectly well eight months after operation. Axillary lymph glands have disappeared.

PALLIATIVE SERIES.

One case (No. 1) lived six months. No visible recurrence. Had an attack of pulmonary edema secondary to valvular disease—died on third day. No autopsy. Axillary glands had disappeared.

One case (No. 2) lived five months, no visible recurrence. Had a severe attack of sciatic rheuma-

tism which left that region and seemed to attack the heart—died on third day. Axillary glands had disappeared.

One case (No. 3) living and well five months after operation. Axillary lymph glands have disappeared.

One case (No. 4) living and well for a year. One year after operation showed suspicious nodule in opposite breast, with enlarged right and left axillary and cervical lymph glands. Prognosis hopeless.

August 10, 1912.

23½ MERCHANTS ROW.