Post-Operative Care. The patient should be kept in bed with the chest elevated, lying upon the operative side; on the following day the dressing should be changed; and on the second day, the drain started. The latter should be withdrawn gradually until removed. It may be necessary to place a new drain from time to time, until a good sinus is established. Lavage should never be used.

Complications. These may arise during the operation, or during the after-care. The first danger encountered during operation is that of bursting of the lung abscess into a bronchus, causing flooding of both lungs and immediate death by asphyxia. Three other accidents may happen at the time the pleura is opened, namely, sudden asphyxia due to pneumothorax from too large an opening in the pleura, syncope of reflex origin, and a sort of tremor or convulsion of the lung,—the *lungenflattern* of Garré. Symptoms due to pneumothorax may be prevented by making a small incision through the pleura, admitting a small amount of air at a time, and temporarily closing the opening should the least untoward symptom arise. Syncope is a fatal complication of reflex origin. Körte has observed it three times in 28 pneumotomies, and Lenhartz four times in 60 cases. It may occur at the moment the lung is incised, toward the end of the operation, or even hours after the operation is completed. It cannot be attributed to the anesthesia, since in the three cases reported by Körte only one was given a general anesthetic; nor to pneumothorax, for in all three pleural adhesions were present, and there was no collapse of the lung. The *lungenflattern* of Körte is less grave. This writer says that it is caused by large costal resection. The complications arising during convalescence are hemorrhage and infection. Should the former occur, it may be necessary to open the incision and ligate the bleeding vessel. If this cannot be done, gauze should be packed into the cavity, in the hope that pressure will arrest the bleeding. Empyema may follow the opening of a lung abscess in spite of all precautions taken to prevent infection of the pleural cavity. Likewise, infection of the edges of the wound may take place. Secondary lung abscesses may form in the lung, adding to the seriousness of the situation. Good drainage of the lung abscess should be maintained at all times, in order to guard against this complication. Lesions in other parts of the body may be caused by septicemia and pyemia.

The following statistics are the result of a review of the literature of the last ten years:

Total number of cases of acute abscess of the lung, 132; males, 98; females, 32; sex not mentioned, 2.

Total number of cases of acute gangrene, 40; males, 27; females, 5; sex not mentioned, 8.

Average age in cases of acute abscess, 24.5 years; in cases of acute gangrene, 38.6 years.

In acute abscess of the lung, the right side of

the chest was involved in 60 cases, the left in 45, both sides in 5 cases; side not mentioned in 22 cases.

In gangrene, the right side of the chest was involved in 21 cases, the left side in 9 cases, both sides in 2 cases; sides not mentioned in 8 cases.

In acute abscess the lobes were found to be involved as follows: upper, 21 times; lower, 76 times; middle, twice; both upper and lower, 5 times. In 28 cases, the lobe was not mentioned.

In acute gangrene: upper, 10 times; lower, 24; middle, none; both upper and lower, 6 times.

In acute abscess cases, adhesions were present in 63, absent in 2, not mentioned in 57. In acute gangrene, they were present in 17 cases; not mentioned in 23 cases.

In 104 cases of acute abscess the lesions were single, multiple in 16, not mentioned in 12.

The mortality in cases of acute abscess treated medically was 54%; in those treated surgically, 25%. The mortality in cases of gangrene treated medically is 89%; those treated surgically, 44%.

NOTES ON SCABIES IN BOSTON.

By F. M. PAINTER, BOSTON.

A HISTORY of a long run of scabies in a family of eleven recently brought the subject before the Social Service Department of the Massachusetts General Hospital. To see whether such instances were of frequent occurrence it was planned to follow up a group of cases taken at random from out-patient records in order to learn what the outcome had been. The group selected was the patients coming for the first time to the Out-Patient Department of the Massachusetts General Hospital in 1913. There were found to be 158* cases in which an unquestioned diagnosis of scabies was made. In 36 of these the medical records indicated that the disease was considered cured at the time of the patient's last visit to the hospital. Of the 122 cases unsatisfactory when last seen, reports were obtained on 48 of the more accessible by visits made in January, 1914. The outcomes of this sample group of cases may be classified roughly as satisfactory and unsatisfactory, as follows:

SATISFACTORY.

"Cured," no return	32
"Cured," some return of itching several months later, but patients vigorous as to treatment	3
Still have irritation, but no lesions	3
Hospital treatment "helped," but cure was finally effected by other treatment	3
No treatment given at hospital. Cured by private physician	1
	42

* The number given on the charts (Charts 1 and 3) includes cases of questioned diagnosis and also the patients previously treated for other complaints. The method of recording made it impracticable to include these last in the investigation.

UNSATISFACTORY.

Still diseased, after 2-3 months	4
Diseased six months after visit to hospital.	
No certain evidence as to date of cure	1
Diseased two months after last visit	1
	6

Of the 32 cases cured by the clinical treatment all but nine reported that the cure was effected in *two weeks or less*. In general the patients seem to have carried out the treatment vigorously. Many of them went home with their pockets full of a supply of sulphur ointment for the whole household, who all followed the hospital directions. One thorough-going housewife required her entire family, including a married son and daughter and their children, to anoint themselves with sulphur ointment, regardless as to whether they showed signs of scabies or not. A young Swedish girl used the ointment for two weeks instead of three nights, and, naturally, came back to the hospital with a sulphur dermatitis. Of the three patients who sought treatment outside the hospital, one belonged to a family of prosperous Hebrews who had especial difficulty in getting rid of the disease. In spite, apparently, of vigorous measures the trouble ran on for months, reducing the man of the family to a wreck, and the family doctor to something not unlike it. A Jewish mother, a notably good housekeeper by the appearance of her home and children, had faithfully followed directions for months in a case of stubborn irritation following scabies. She turned with tears in her eyes as she asked, "What shall I do?"

Of course not all the patients have taken the matter so seriously or dealt with it so rigorously. Some of the families have the lowest standards of living. In one case although our own patients, school children, are cured, the father lets his trouble run on. In some other places all the conditions were so squalid that it was surprising people living on such a scale had been made to take seriously an itching of the cuticle. It is a credit to doctors and nurses that out of 48 cases only six—one in eight—proved unsatisfactory.

"UNSATISFACTORY" CASES.

These six cases do not, either collectively or individually, present any serious problem. One was never treated at all for the scabies, having in the course of transfer for other ailments somehow missed being sent to the skin department. Another is an untidy and unmanageable grown son in a scrupulously clean German family, all of whom except the patient regard the disease with horror, and are making the most strenuous efforts to guard themselves and cure him. A third, a tiny girl, complained that the "salve burned." The family said no one else had the trouble, and promised to send the child back for a milder application. A fourth, an American girl of eighteen, has come to the clinic five times

at intervals of from three weeks to a few days, and shows improvement if not actual cure. Of the two other cases, one was a feeble-minded child at home on vacation from the Waverley, school, the other a State charge transferred from a private society apparently without diagnosis. Neither of these children can have failed later to receive proper treatment. Of the six unsatisfactory cases, then, at least three were found to be in a fair way to cure. Even considering, however, the whole six as bad, a showing of 42 good outcomes in 48, or only 12½ per cent. of failure, is far from unsatisfactory in out-patient work.

DECREASE IN FREQUENCY OF SCABIES.

The reassuring results of the field investigation are confirmed by definite statistical evidence indicating a very great decrease in the frequency of scabies in Boston during the past few years. (See Charts 1 and 2.) The figures were taken

CHART 1.
Number of Cases of Scabies.
Massachusetts General Hospital Out-Patient Department.

1904		411
1905		316
1906		406
1907		436
1908		304
1909		258
1910		213
1911		199
1912		174
1913		207

CHART 2.
Number of Cases of Scabies.
Boston Dispensary Skin Department.

1904		344
1905		303
1906		580
1907		526
1908		575
1909		430
1910		275
1911		236
1912		179
1913		160

from the records of the Massachusetts General Hospital Out-Patient Department and of the Boston Dispensary. Chart 1 gives a picture of the relative number of cases coming to the Massachusetts General Hospital Skin Department during the years 1904-1913. It shows a steady falling off from 1907 to 1912, the number

of cases being reduced to less than half during that period. Chart 2 gives the corresponding pictures for the Boston Dispensary, where the decrease, which began a year later, has been equally steady and much greater, the number of cases being reduced to less than a third of what it had been.

The continued increase of scabies at the Dispensary through 1908, when the decline at the Massachusetts General Hospital begins, corresponds to a very large increase in the total clinic of the Dispensary that year. The attendance was over 700 more than that of 1907. The only change in conditions which might account for this rise, so far as I can find, was the appointment as assistant in January, 1908, of Dr. John H. Bufford, present chief of the dermatological service. The fluctuations in scabies at the Massachusetts General Hospital similarly correspond with fluctuations in the total attendance at that clinic. The total number of cases given for the Dispensary for 1913 is probably much lower than it should be, owing to a change in the method of record-keeping by which the count for the last five months is made far less accurate than for the preceding periods. For all these reasons the diagrams based on the *proportion of scabies to all skin diseases* (Charts 3 and 4) give a much truer picture of conditions than those based on the gross numbers.

CHART 3.
Percentage Scabies of all Cases Treated.
Skin Department, Massachusetts General Hospital, O. P. D.

1904		TOTAL 3795 SCABIES 411	10.8%
1905		TOTAL 2997 SCABIES 316	10.5%
1906		TOTAL 3282 SCABIES 406	12.4%
1907		TOTAL 3496 SCABIES 436	12.5%
1908		TOTAL 3291 SCABIES 304	9.2%
1909		TOTAL 3325 SCABIES 258	7.8%
1910		TOTAL 3165 SCABIES 213	6.7%
1911		TOTAL 3450 SCABIES 199	5.8%
1912		TOTAL 3267 SCABIES 174	5.3%
1913		TOTAL 3804 SCABIES 207	5.4%

CHART 4.
Percentage New Cases Scabies of Total New Cases all Diseases.
Boston Dispensary Skin Department.

1904		TOTAL 2638 SCABIES 344	13.0%
1905		TOTAL 2690 SCABIES 503	18.7%
1906		TOTAL 2798 SCABIES 580	20.7%
1907		TOTAL 2649 SCABIES 526	19.9%
1908		TOTAL 3355 SCABIES 575	17.1%
1909		TOTAL 3058 SCABIES 430	14.1%
1910		TOTAL 2712 SCABIES 275	10.1%
1911		TOTAL 2767 SCABIES 236	8.5%
1912		TOTAL 3109 SCABIES 179	5.8%
1913		TOTAL 1976 SCABIES 118	6.1%

SEVEN MONTHS
JAN. 1 - AUG. 1

These charts show interesting points of resemblance,—a general increase of scabies from 1904 to 1906 in both clinics; almost no change in 1907; then a decided and regular decrease until 1913, when there is again a slight increase. The Dispensary clinic shows much larger numbers, both absolute and relative, for scabies; the ratio of this disease to the total clinic being in 1906 as high as one case in five, while at the Massachusetts General Hospital it never rose above one in eight (1906 and 1907). Still, the resemblance between the two diagrams is sufficient to point to wide-spread conditions throughout the city.

SCHOOL NURSES ARE THE CAUSE OF THE DECREASE.

The credit for the decrease I have found is not only claimed for the school nurses but ascribed to them by other branches of public medical service. The school physicians have a sharp eye for the disease. But with an ailment characteristic of the recent immigrant it takes more than a mail notice to secure treatment in 95 per cent. of cases. This 95 per cent. is followed up by the nurses. The diagrams offer a graphic and interesting indication of the results of their work, which began in 1907, the year before the marked and steady decrease in the disease begins in both clinics.

INCREASE OF IMMIGRATION AND INCREASE OF SCABIES.

What, however, is the cause of the increase in the early years, and, what is more important, in 1913? For that we must turn to the ultimate source of the whole trouble, namely, the tide of South and East European immigration. Chart 5 illustrates the rise and fall of this tide during

CHART 5.
Immigration of Hebrews and Italians to the United States.

1904		302,264
1905		356,230
1906		440,562
1907		443,243
1908		238,634
1909		247,949
1910		307,713
1911		281,173
1912		242,866
1913		373,477

the years with which we are dealing. Because of the immense preponderance of Jews and Italians in the immigration to Boston during these years, as well as in the clientele of both clinics, I have taken from the reports of the Bureau of Labor the figures for these two races as a basis for the charts. It will be noticed that the increase of scabies in 1904-1906 and the very in-

significant changes in 1907 correspond with the variations in immigration for these years. The good work of the school nurses, it appears, was able to maintain a steady decrease of scabies until the end of 1912, in spite of the increase of immigration in 1910 and 1911. But the enormous increase of immigration in 1913 has been more than they could quite cope with, so that while they have made an admirable opposition to it, the disease has gained a little upon them.

It is extremely interesting to trace the same parallel when we go back nearly thirty years to the beginnings both of scabies as a clinical problem and of Italian and Jewish immigration. Writing in the *BOSTON MEDICAL AND SURGICAL JOURNAL* of September 23, 1886, Dr. F. B. Greenough observes: "That scabies is much more prevalent at present than formerly in Boston and its vicinity is shown not only by my individual experience, but by that of my colleagues who have charge of hospital dermatological services, as well as by the testimony of private practitioners. . . . The probable reason for this very decided increase is to me one of the most interesting points of the subject. . . . Why, after being for some years comparatively rarely seen, it should all at once take a start, and increase in frequency very rapidly, is not so easily explained."

He goes on to count up that during the preceding year 276 cases in all had come under his personal cognizance, including six in his private practice, and comments "Up to three years ago I had never seen a case of scabies in private practice." It is an interesting illustration of the the slight attention paid to the incoming flood of immigration at its beginning, that in spite of his interest in the spread of scabies and its causes Dr. Greenough does not once take this factor into consideration. Yet the great flood of Jewish and Italian immigration began just four years before he wrote, in 1882, when the May Laws expelled the Jews from Eastern Russia. Dr. Greenough's percentages, computed from the records of his clinic at the Boston Dispensary, side by side with the immigration figures, form the basis of the final chart, (Chart 6).

AGE AND RACE.

In this connection I give for what they are worth the facts as to age and race for the group of our investigation. Small as the figures are, they are not without interest, taken in connection with other information.

RACE IN SCABIES AT THE MASSACHUSETT GENERAL HOSPITAL, 1913.

Jewish	54	34 per cent.
American	37	23 per cent.
Italian	20	13 per cent.
Irish	17	11 per cent.
Miscellaneous . . .	30	19 per cent.

NOTE.—The immigration chart is on a scale five times greater than that used in the preceding chart. Dr. Greenough's years date from July 1. The first two periods cover July 1, 1873, to November 20, 1876, and November 20, 1876, to June 30, 1878.

Over a third of the patients are Jews, and an eighth are Italians. This includes both the foreign-born and the American-born of foreign parentage, so far as it was possible to distinguish the latter. In the case of those not visited, however, the basis for classification was merely birthplace; in the case of the native-born taking into account names of obvious racial significance. No doubt the "American" group includes a number who belong elsewhere, and indicates too large a proportion of the cases, nearly a quarter, as occurring in Americans.

The next table shows how these races, so far as our 158 patients are concerned, compare as to the carrying out of treatment for scabies.

	Total.	"Cured."	Per Cent. "Cured."
Italian	20	13	65
Jewish	54	31	57
"American"	37	16	43
Irish	17	7	41
Miscellaneous	30	11	37
Total	158	78	49

Of the 158 nearly half (78) were apparently cured. Of the Italians, 65 per cent. showed "cures," against 57 per cent. of the Jews and only 41 per cent. of the Irish. These figures, in themselves unimportant, bear out, like the statistical evidence as to the decrease of the disease, general statements made to me by a skilful dermatologist, whose accurate observation has been most helpful to us in making this inquiry.

The age figures are at variance with the general impression that the majority of scabies patients coming to hospitals and dispensaries are children.

AGE IN SCABIES AT THE MASSACHUSETTS GENERAL HOSPITAL, 1913.

Under 6 years.....	21	} 68, or 43 per cent.
6-14 years	47	
Over 14 years.....	90,	

or 57 per cent.

Total158

Considerably over half the group, 90 of the 158, or 57 per cent., are over 14 years of age. Dr. Greenough's figures, though they show a proportion of nearly four-fifths, 417 out of 549, between the ages of 5 and 30, nevertheless show an even larger proportion than our own above the age of childhood; 378, or 69 per cent. of his patients, are 15 or over.

SCHOOL AND SCABIES.

	Of School Number	Age, Not of School Per Cent.	Age, Number	Per Cent.	Total
During school months	42	32	90	68	132
During vacation.....	5	19	21	81	26
Total	47	30	111	70	158

(84%)

(16%)

Classifying again in order to relate the group to school conditions, I find that five-sixths of the cases came during the school months, and that during those months about one patient in three was of school age, against one in four during the vacation.

SUMMARY AND CONCLUSIONS.

1. The out-patient cases followed up show a proportion of 7 satisfactory outcomes in 8, or 87½ per cent., by a rather strict interpretation of "satisfactory"; by a freer definition, 15 fairly good outcomes in 16, or 93¾%.

2. Statistical evidence from two large clinics shows the frequency of the disease to have been reduced in one case to less than half, in the other to less than a third of what it was seven years ago.

3. The facts brought together indicate that the present methods of dealing with scabies are on the whole successful. Even the slight increase during the past year is a very minor matter in comparison with the other problems introduced by the incoming tide of immigration.

THE ANATOMY AND PHYSIOLOGY OF THE SEMINAL VESICLES WITH REGARD TO THE TREATMENT OF THEIR LESIONS.*

BY WILLIAM C. QUINBY, M.D., BOSTON.

THE general anatomies describe the seminal vesicles as a pair of convoluted organs derived from the Wolffian ducts, lying at the base of the bladder between it and the rectum, and con-

* Read at the Winter meeting of the New England Branch of the American Urological Association, Feb. 17, 1914.

verging diagonally toward the mid-line to empty into the ejaculatory ducts. The relations of the vesicles to the vas deferens and its ampulla, to the ureter, to the peritoneum, and to the fascia of Desnonvilliers, are points important in the surgery of these organs familiar to you all.

It is to the macroscopic anatomy of the vesicle itself, and the convolutions of its system of ducts, that I especially wish to call your attention, our knowledge of this having been much enlarged recently by the newer injection methods as used by Pallin, Picker, Barnett, and Belfield.

The first to study the canal system of the human vesicle whom I have been able to find, was Pallin in 1901, who made observations by the corrosion method in 20 adult cases. He divides the forms of vesicles found into, (a) those with slightly convoluted main channels, and (b) those with the main channel markedly convoluted. Under each division he makes two subheads, according as the diverticula of this main channel are short and uniformly developed or irregularly developed and themselves convoluted.

A still more important communication has recently been made by Picker, who examined the vesicles in 150 subjects by the injection of col-largol or of bismuth paste. The prostate and vesicles were first made accessible in Douglas' fossa, their contents expressed, and the urethra clamped off just below the prostate. The vesicles were then injected from each vas till they were moderately tense, and then examined either by dissection or by the x-ray. He divides his material thus prepared under the following headings:—

- A. Simple straight tubes, 3.5%
- B. Thick twisted coils, with or without very small diverticula, 15%
- C. Thin twisted tubes, with or without small diverticula, 15%
- D. Straight or twisted main channel, with large bulbous diverticula, 33%
- E. Short main channel; large branched irregular accessory channels 33%

The blood supply of the seminal vesicle is large. It is derived mainly from the middle hemorrhoidal and inferior vesical branches of the internal iliac artery. The main point of entry of these arteries is the upper outer border of the vesicle. This point has been brought out by Barnett, who calls it the vessel pole, and advises its careful ligation before enucleation of the organ. One should also remember that in this region the vesicle is in its closest relation to the ureter.

The veins are similar to the arteries.

The nerves are from the pelvic plexus of the autonomic system.

The lymphatics empty into the glands lying on the common and internal iliac arteries.

(Lantern slides illustrating the above anatomical points were shown.)