by this method subject to the regulation of our Company's By-Laws which are all signed under the hands of the two Cheife Justices & the present Lord Chancellor & contrived with the greatest exactness to regulate the practise of this art, besides that every person admitted is obliged to give bond to the Company that he will diligently attend such cures as he shall be called unto & that he will never wilfully administer any hurtfull medecine, And in all cases of danger call in one of our ten Examiners to his assistance who are always ready to afford their assistance when asked."

"Lastly we think we may add that the Company's services of the publick may reasonably deserve some consideration from all lovers of the publick for that ten of the principall persons of the faculty meet once a week at their Hall to examine & approve all Surgeons & Surgeon Mates that are in her Majesties Service which amount to five hundred in a year & to inspect all Sea Surgeons' Chests of medicines & instruments & to peruse the Journalls of their practice & to view all Sea officers who are wounded in fight & this without the least reward nor are any admitted into the Sea Service without their Testimoniall & approbation to the very great preservation of the Seamen. And tis presumed that a Regulation that has been found so necessary at Sea will appear at Land to be equally beneficiall."

The next year similar letters were sent to the Bishops of London, Winchester and Rochester, and to the Dean of St. Paul's. In 1540 the Surgeons' Guild was incorporated, not, however, separately, but with the Barbers' Company, the resulting Company, named the "Maisters or Governours of the Mysterie and Comminalte of Barbouris and Surgeons of London," being given a new charter, in which the surgeons were recognized as surgeons, and forbidden to practise barbery, and the barbers were recognized as barbers, and forbidden to practise surgery except tooth drawing. The charter directed the surgeons to display signs. It provided for the appointment of four masters, of whom two should be surgeons and two barbers. The Court of the Company was frequently appealed to by patients or their friends, who thought that they had not been properly or sufficiently treated by their surgical attendant; for example:

"15th September, 1573. Here was one Alexander Capes a carpenter and required that he might have some helpe concernyng his griefs consyderinge that he had ben in thands of John frend Wilhm Wise & Richard Storye and had geven them mony for to be cured and was not, wherefor order was taken that they should deale further wth him for his health."

"7th September, 1574. Here was John Griffen playned upon William Pownsahe for gevinge him a powder weh lossed all the teeth in his head, weh John Griffen had the disease weh we call Demorbo gallico."

"13th March, 1576. Here was a complainte determined upon weh was made against Tho: Hodes and for that he was provide ignorant he is bounde in xlii never to medle in any matter of S'gery."

"8th October, 1577. Here was a complainte made by one Mrs. Riche against Robt. Bewsy for that he had her husbonde to cure who died and the said Bewsy said and reported that she was an evell liver and that he died of a botch called Bubo veneria and taken of her, weh he denied, but beinge proved she put the matter wholie to this worshipfull howse who did award that he sholde in the presence of her nighbors who were here present in the p'lor upon his knees aske her forgiveness, weh he did and so the matter was finally ended."

(To be continued.)

Original Articles.

THE CLINICAL STUDY OF FOUR HUNDRED AND EIGHTY FIVE CASES OF NAIL DISEASE.

BY CHARLES J. WHITE, M.D., BOSTON,
Instructor in Dermatology in Harvard University.

This investigation covers a period of three years, and represents the material collected at the Massachusetts General Hospital and from private practice. At the time it was begun there was no monograph covering the whole field of nail pathology, but since that date Heller's most important work has appeared, and our association has held a symposium upon nail diseases, so that my early reasons for this study have lost their importance; but, nevertheless, I think the tables which I have compiled will add something to our meagre knowledge of this difficult subject.

As will be seen from the tables which have been given you, there are six conditions which provide 404 out of the 485 examples of pathological nails, and in the short time at my disposal I shall describe the nail changes in these six diseases, leaving to my tables the details of the other twenty-nine affections in which nail changes were noted.

Eczema produces the most frequent examples of nail disease, furnishing 107 of our cases. The changes observed in this disease may occur in the nail walls, matrix, bed and plate, and are produced by the same causes that bring about an eczema of the skin. The involvement of the nails before the age of twenty is distinctly uncommon. The disease prevails all through adult life up to the age of seventy, when it diminishes in frequency. In the acute form the nail walls are red and swollen, the plate loses its normal convexity, pain is felt in the bed, the plate becomes rough, the lustre vanishes, discoloration is present, and soft spots appear in the plate which later form minute punctate depressions. If the cutaneous disease continue, the nail exhibits one or more of the following conditions: transverse depressions or ridges, vertical ridges, hyperkeratosis of the bed, with increase in the convexity of the plate and subsequent disappearance of this granular detritus, and thinning of the plate with increased brittleness, exfoliation of surface cells of plate, leuconychia, or finally total loss of the nail. If the matrix is affected, a deep transverse furrow may result.

The pathological changes consist in the formation of eleidin and horny matter rather than the normal nail substance, together with edema and cellular infiltration about the vessels of the corium.

Trauma or felon are two accidents which frequently befall the nails, and when of slight importance, or do not involve the matrix, the results upon the nail are unimportant. When, however, the matrix is affected, then we have a permanent

¹ Read before the American Dermatological Association, Boston, Sept. 19, 1902.

CLINICAL CHARACTERISTICS OF 485 EXAMPLES OF NAIL DISEASES.

DISEASE.		NUMBER OF CASES.														Totals																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		107	72	68	67	62	28	9	8	5	5	4	4	4	3	3	3	3	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

change which will reproduce itself as long as the individual lives. The commonest of the constant deformities are transverse depressions, vertical ridges, hyperkeratosis subungualis, with its usual sequelæ, and discoloration. The more unusual changes are round punctate depressions, atrophy, exfoliation of surface of the plate, increased convexity, brittleness, opacity, koilonychia, gryphosis, leuconychia, transverse ridges, vertical depressions, invasion of air into the plate, with subsequent crumbling, or total loss of the nail.

Paronychia comes third in importance in my list, providing sixty-eight cases. This is an acute

the other alterations of the plate noted in eczema may appear in paronychia, but the ones above mentioned are by far the most frequent.

Psoriasis holds a position almost identical with paronychia as a disturber of nail equilibrium, while the involvement of the nails in cases of cutaneous psoriasis is relatively much commoner than is the rule in eczema. The disease can exist also alone in the nails, but such a diagnosis is in truth a hazardous one. The condition is most frequently observed in men, and between the ages of twenty and forty. The simplest cases consist of round punctate depressions in the plate, and Unna

DISEASE	SEX	AGE BY DECADES	RACE	OCCUPATION	
Eczema107	Male41	1st 2	Irish41	Housework.....26	Harpist..... 1
	Female.....64	2nd 4	American36	Leatherwork..... 1	Cashier..... 1
	Unstated..... 2	3rd20	Jewish..... 7	Hostler..... 1	Gardener..... 1
		4th22	German..... 4	Coal heaver..... 1	Dyer..... 1
		5th20	Italian..... 3	Pedler..... 1	Sugar factory..... 1
		6th19	Fr. Canadian..... 3	Barber..... 1	Nurse..... 1
		7th13	Swedish..... 2	Elevator boy..... 1	Undetermined or
		8th 6	English..... 1	Fish and meat..... 1	unimportant.....67
		9th 1	Unstated.....10	Carpenter..... 1	
Trauma or Felon...72	Male40	1st 1	Irish.....35	Housework..... 7	Printer..... 1
	Female.....32	2nd 3	American27	Boiler maker..... 3	Policeman..... 1
		3rd11	Jewish..... 5	Ball player..... 2	Machinist..... 1
		4th25	French..... 2	Stone mason..... 2	Barkeeper..... 1
		5th12	Canadian..... 1	Carpenter..... 1	Laborer..... 1
		6th12	German..... 1	Surgeon..... 1	Undetermined or
		7th 5	Unstated..... 1	Expressman..... 1	unimportant.....60
		8th 3			
Paronychia68	Male13	1st 3	Irish24	Housework.....30	Carpenter..... 1
	Female55	2nd 3	American.....14	Bartender..... 2	Rubber worker..... 1
		3rd14	Jewish.....16	Soda fountain..... 1	Dentist..... 1
		4th20	German..... 4	Jelly maker..... 1	Blacking maker..... 1
		5th13	Italian..... 4	Sugar factory..... 1	Fisherman..... 1
		6th10	Swedish..... 3	Physician..... 1	Undetermined or
		7th 1	Nova Scotian..... 1		unimportant.....27
		8th 1	Polish..... 1		
		Unstated... 3	Unstated..... 2		
Psoriasis67	Male41	1st 1	Irish23	Unimportant	Unimportant
	Female25	2nd 2	American.....21		
	Unstated 1	3rd19	Jewish..... 6		
		4th15	Swedish..... 2		
		5th 7	German..... 1		
		6th11	English..... 1		
		7th 6	Portuguese..... 1		
		8th 1	Fr. Canadian..... 1		
		Unstated... 5	Canadian..... 1		
			Unstated.....10		
Professional derma- titis without paro- nychia62	Male28	 1	Irish.....36	Housework.....31	Brass polisher..... 1
	Female32	2nd 1	American.....12	Cigar maker..... 3	Soda fountain..... 1
	Unstated..... 2	3rd13	Jewish..... 7	Tanner..... 3	Blacksmith..... 1
		4th17	Swedish..... 2	Sugar factory..... 2	Longshoreman..... 1
		5th12	German..... 1	Shoemaker..... 2	Bookbinder..... 1
		6th 9	Armenian..... 1	Tailor..... 2	Cement worker..... 1
		7th 6	Italian..... 1	Glue works..... 1	Shoeblacking maker..... 1
		8th 1	Scotch..... 1	Grain handler..... 1	Potash worker..... 1
		Unstated... 3	Unstated..... 1	Meat handler..... 1	Barber..... 1
				Barkeeper..... 1	Ironer in laundry..... 1
			Hemp worker..... 1	Bichromate of pot- ash..... 1	
			Tinsmith..... 1	Brush maker..... 1	
			Stone mason..... 1		

or subacute process, and usually occurs in women who wash dishes or scrub floors, but any individual who subjects his fingers to a constant irritation may develop this localized condition. The most common nail changes are discoloration, transverse depressions and hyperkeratosis subungualis, with its usual sequelæ. These consist in the lifting of the plate and subsequent discharge of the keratotic granules from the bed, leaving a flat, horny floor covered by a thin, dome-shaped roof. All

and Heller regard this symptom as pathognomonic of psoriasis, but I cannot agree with this position, as these lesions appeared in more than a quarter of my cases of eczema of the nails.

The commonest lesion in my experience is a more advanced condition, and consists in the changes subsequent to hyperkeratosis of the bed. This was noted in 57% of my cases. Two other common lesions are discoloration, which varies from yellow to dark brown, and transverse de-

pressions, both of which occur in about 38% of the cases. After these four deformities come in the order of their frequency, simple hyperkeratosis subungualis, brittleness of the plate, thinning, opacity, vertical ridges, exfoliation, increased con-

to be imbibed by the plate cells. This leads to opacity and discoloration. In the subungual corium there is great dilatation of the vessels instead of the inflammatory edema observed in eczema. The prognosis is almost always good, but I have

DISEASE	SEX	AGE BY DECADES	RACE	DISEASE	SEX	AGE BY DECADES	RACE
Syphilis.....28	Male.....19	1st.....1	Irish.....11	Dermatitis herpetiformis....4	Male.....2	2nd.....1	Irish.....2
	Female.....8	3rd.....2	American.....10		Female.....2	3rd.....1	Syrian.....1
	Unstated...1	4th.....7	Italian.....1			4th.....1	Jewish.....1
		5th.....8	German.....2			5th.....1	
		6th.....5	Swede.....1				
		Unstated...5	Polish.....1				
			Unstated...2				
No apparent cause.....9	Male.....4	1st.....1	American...5	Burn.....4	Male.....1	2nd.....1	Irish.....3
	Female.....5	2nd.....2	Irish.....2		Female.....3	3rd.....1	Unstated...1
		3rd.....1	Jewish.....1			5th.....1	
		4th.....2				7th.....1	
		5th.....1					
		6th.....2					
Tinea favosa....8	Male.....4	2nd.....5	Jewish.....8	Pus under nail..3	Male.....0	3rd.....1	American...1
	Female.....5	3rd.....1			Female.....3	4th.....1	German.....1
		4th.....1				5th.....1	Irish.....1
		6th.....1					
Alopecia—bad teeth, bad nails 5	Male.....3	1st.....1	Irish.....2	Biting of nails..3	Male.....3	3rd.....2	Irish.....3
	Female.....2	3rd.....2	American...1		Female.....0	4th.....1	
		4th.....1	German.....1				
		5th.....1	Unstated...1				
Xeroderma.....5	Male.....0	1st.....2	American...4	Acromegaly.....3	Male.....1	6th.....1	Scotch.....1
	Female.....5	2nd.....1	Irish.....1		Female.....2	7th.....2	Unstated...2
		3rd.....1					
		4th.....1					
Arthritis deformans.....4	Male.....0	6th.....3	Irish.....3	Dermatitis exfoliativa.....3	Male.....3	7th.....1	American...2
	Female.....4	7th.....1	American...1		Female.....0	8th.....2	Unstated...1
Tinea Tricophytina.....3	Male.....1	3rd.....2	Indian.....1	Ichthyosis.....2	Male.....1	2nd.....1	American...2
	Female.....2	4th.....1	American...1		Female.....1	7th.....1	
			Jewish.....1				
Keratosis Pilaris 3	Male.....2	2nd.....2	Irish.....2	Argyria.....1	Male.....1	5th.....1	Irish.....1
	Female.....1	7th.....1	Unstated...1				
Tuberculosis Verrucosa.....2	Male.....0	4th.....1	Nova Scotian..1	Acro-Arthritis..1	Female.....1	6th.....1	Jew.....1
	Female.....2	6th.....1	Unstated...1				
Nervous Shock..2	Male.....0	3rd.....1	Jew.....1	Phthisis Pulmonalis.....1	Male.....1	6th.....1	Unstated...1
	Female.....2	5th.....1	Irish.....1				
X-Ray Dermatitis.....2	Male.....2	3rd.....1	American...2	Hydroa Aestivale.....1	Male.....1	4th.....1	American...1
	Female.....0	4th.....1					
Vitiligo.....2	Male.....0	4th.....1	American...1	Pityriasis Rubra Pilaris.....1	Male.....1	1st.....1	American...1
	Female.....2	5th.....1	Irish.....1				
Pruritus.....2	Male.....0	2nd.....1	Irish.....1	Injured Spine...1	Male.....1	4th.....1	American...1
	Female.....2	3rd.....1	Jew.....1				
Psorospermiosis..2	Male.....0	2nd.....1	French Canadian.....1	Myxoedema.....1	Female.....1	7th.....1	Irish.....1
	Female.....2	4th.....1	Negress.....1				
Raynaud's Disease.....2	Male.....0	4th.....1	Irish.....1	Neurasthenia...1	Female.....1	7th.....1	Unstated...1
	Female.....2	5th.....1	Nova Scotian..1				

vexity, total loss of the nail, broken nail, koilonychia, disappearance of lustre, transverse ridges and vertical depressions.

Pathologically, the psoriatic papules form on the bed, raising up the plate and allowing the air

observed severe cases of many years' standing, where the nails have completely fallen, never to return again.

Dermatitis professionalis.—Under this title will be considered the sixty-two cases of acute

dermatitis of the hands and fingers, which can be directly attributed to some noxious occupation or to some chance poisoning of the skin. Here the commonest symptom is koilonychia, which appeared in about 40% of my cases. Other frequent changes in the nail are round punctate depressions, discoloration, transverse depressions, vertical ridges and hyperkeratosis subungualis, with its usual sequelæ.

Syphilis of the nails is not a common condition, and forms only 5% of my cases. Like the general constitutional disease, syphilitic manifestations on the nail may be divided into those resulting from the primary lesion, from the secondary eruption and from the late changes of the disease.

A chancre on the nail wall is followed in a short while by a series of parallel transverse depressions with or without discoloration, or the change may be more intense, and the plate will ulcerate and drop off in part or *in toto*.

The secondary stage of the disease shows itself usually in one of two ways: (1) By the formation of a papule on the bed, and (2) by a general, moist ulceration of the nail. The formation of a papule on the bed is indicated by a red spot in the plate, which becomes yellow with the subsidence of the lesion. The plate over the papule becomes thinner, and may be broken even, while the horny layer of the bed thickens, and as a result leuconychia may ensue. The secondary ulcerations of the nail are the most frequent syphilitic manifestations, and the disease is characterized by the large percentage of the nails involved. The first signs are redness and swelling of the last phalanx accompanied by pain. The nail walls become affected, and the epidermis is raised by fluid, and finally ulcerates. Pus appears from the eponychium and from under the plate on the sides, and causes the plate to look yellow. Blood is imbibed by the plate cells and the nail becomes red and later black. Ulcerations appear along the bed, and, as a result, the nails fall. If the matrix is affected, nails may not be reproduced, or may grow again gryphotically deformed. The restitution of such nails is always a long and tedious task, and must be accomplished by mild local antiseptics and prolonged general antisiphilitic treatment.

The nail lesion associated with late syphilis usually assumes a dry form, and has been termed *scabrities unguium syphilitica* or *onyxis craquelé*. At the root of the nail white punctate depressions form in vertical series brought about by parakeratosis and acanthosis of the bed. These pathological processes prevent the formation of onychin, and as a result we find hyperkeratosis of the bed or a thickened, yellow, crumbling plate.

Although favus and ringworm of the nails are very rare conditions, still I want to add a few words about them, for, in my opinion, they are two conditions which I feel that an expert ought always to diagnosticate provisionally when confronted with severely abnormal nails.

Tinea trichophytina of the nail is a very rare condition, and is usually caused by the megalos-

poron. The disease first appears at the distal end of the nail and gradually spreads backwards. The plant first attacks the bed, producing an opacity and discoloration of the plate which usually assumes a whitish yellow tint. As the disease progresses, the color darkens, even to a brown, but never reaches black, as is so often the case in favus. Coincident with the progressive color changes, the bed becomes more and more hyperkeratotic, the plate is raised more and more from the bed and shows transverse depressions, transverse elevations or vertical ridges, and finally the plate itself is attacked and becomes rough on the surface, exfoliates in lamellæ, atrophies or splits and is finally cast off. The disease is essentially a very chronic one, and even when properly treated, requires at least two years for its thorough eradication. If left to itself, the plant has been known to remain active in the nail substance even up to thirty years. A positive diagnosis is extremely difficult, for even although we have excluded to our satisfaction all other possibilities, the spores may elude the most diligent microscopical investigation—in fact, it is only when one has demonstrated conclusively the characteristic spores that one can state positively that one is dealing with ringworm of the nail. On the other hand, if the nail presents the clinical characteristics above enumerated, and ringworm is present elsewhere on the patient's body, we have a certain right to assume that the nail is similarly infected.

Tinea favosa of the nails is more commonly observed than ringworm, but the clinical appearances of the two diseases are quite similar. The plant attacks the distal end of the bed and produces an opacity and discoloration of the plate. The hyperkeratosis spreads backwards and the plate is raised from its bed, becomes darker and darker in color, even to blackness, and its surface shows transverse depressions, or ridges. Often the substance of the plate is attacked, and assumes a honeycombed appearance, which soon leads to crumbling and splitting and final loss of the nail, or the hyperkeratotic granules are extruded from the bed, leaving, as sometimes occurs in ringworm, a hollow space underneath the atrophied and brittle nail plate.

The disease may be caught from domestic animals, or from one's neighbors, and often occurs in two or more members of the same household. The Russian Jews seem to be particularly liable to infection, and all my eight cases occurred in people of this race.

Histologically, one finds a thickened prickly layer of the bed, elongated papillæ and an enormously hypertrophic horny layer in which the *Achorion Schœnleinii* appears. The fungus is not so abundant at the distal end of the plate as farther back, and its mycelium grows parallel with cells of the stratum corneum. The process is much more chronic than in the scalp, and follows closely the characteristics of ringworm both in its life history and in its treatment.

This brings me to the end of the diseases which

I shall here describe, and for want of time I leave to you the interpretation of the table which I have prepared from my detailed notes. I think from what I have read to you this evening and from what you can see on the tables, that you must agree with me in the conclusion that at the present time nobody can claim sufficient knowledge to make a positive diagnosis without the aid of the microscope, when one is confronted by the presentation of diseased nails, unless the skin is also attacked, for we can all see how the same lesions appear over and over again in almost all of the diseases.

A PROBABLE MYXOFIBROMA OF THE NOSE.

BY SEABURY W. ALLEN, M.D., BOSTON.

THE subject of these photographs was found in a small Maine village last summer. He was thirty-four years old, about four feet in height, of healthy parentage and unusual intelligence.

Twenty-two years ago he noticed a slight protrusion of the lower left eyelid, and some months later a soft, friable, easily bleeding tumor appeared at the left nostril. From that time the growth has been slowly progressing, and has lately emerged from the mouth, having come through the hard palate and separated the upper teeth. Owing to the obstruction, there is difficulty in articulation and in eating, and until recently there has been a continuous discharge of saliva and muco-pus, the latter coming from the centre of the mass, which has sloughed away, leaving a cavity as large as one's fist. There is only a slight loss of the sense of smell, which is unfortunate, for the odors of the collections and discharges make the patient's life almost intolerable. The left eye has lost its sight, but not its sensitiveness; neither eye can be completely closed, because of ectropion of the lower lids.

Some six years ago Dr. Gerrish of Portland, Me., saw the case with the view of operating, but declined to interfere on account of the difficulty of etherizing and the danger of fatal hemorrhage. The seven x-ray exposures which I was able to give him before my return to Boston, greatly diminished the odor and the amount of discharge, and both the patient and his family thought that the mass as a whole had shrunk, though I was not sure of this. However, the patient was stronger and better than before, which was probably due to the diminution of the discharge, so lessening the great drain on the system.

It is to be regretted that a specimen for histological examination could not be obtained. Permission for this was refused, on account of the fear of hemorrhage, the patient several times having almost bled to death from slight excoriations of the soft parts.

It is reported that Prof. Adolf Lorenz of Vienna is to receive the degree of LL.D. from Northwestern University, Chicago.

Clinical Department.

GUNSHOT FATALITY; SOURCE OF SHOOTING PROVED BY AN EXAMINATION OF AMMUNITION.¹

BY O. J. BROWN, M.D., NORTH ADAMS, MASS.

UPON the evening of Sept. 28, 1896, I was called by the selectmen of Williamstown to view the body of Benjamin F. Moon, found lying dead in a forest two miles west of the college village. It was a dark night, and we proceeded with lanterns. The body lay in an unfrequented spot, about eight rods from a clearing, surrounded by heavy timbers and dense underbrush.

It was the body of a strong man, about thirty years of age, medium size, five feet seven and one-half inches tall. It was lying on back, head toward west, legs and thighs slightly flexed, the right one most. The right forearm and hand a little flexed. The left forearm and hand lay upon chest. He had on a hat, dark sack-coat, vest, two shirts, socks and Congress shoes. Around his waist was a cartridge belt containing a few unused cartridges. A breach-loading shotgun containing a cartridge shell stood leaning against a tree, five feet away from the body. Upon turning the body on side, I found that it was lying in a pool of blood, and an opening about the size of a hen's egg was discovered in his back, a little to the right of the spinal column, and just below the right scapula. It was evidently a ragged gunshot wound. It entered the body in nearly a direct line, deflecting in neither direction. There were no powder marks upon either clothing or body. How did this man come to his death?

A neighbor named Coon, who was present with us, volunteered the following: He (Coon) had called at deceased's house about noon, and between one and two o'clock they started from the house together to hunt squirrels. They kept together until about three o'clock. They had not been separated more than ten minutes, when Coon heard the report of his companion's gun, and heard him say, "O dear!" He then hastened toward the spot the sound came from, and found his companion lying upon the ground, in the position described. He got down on his knees twice and spoke to him, but got no reply. He claimed that his companion's gun lay on the ground seven feet away. This, Coon had picked up and placed against the tree. He then ran out of the woods into a clearing and called to a farm-hand, named Donnelly, who was there engaged digging potatoes. Donnelly notified his employer, who drove to the town and notified the authorities. Coon returned to the body and remained until dark, then came to meet us.

He told others about the same story he told me. He thought Moon must have had hold of the muzzle of his gun, dragging it through the

¹ Read before the annual meeting of the Massachusetts Medico-Legal Society, June 10, 1902.