SOUTHERN

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EDITED BY

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MEDICAL COLLEGE OF GEORGIA.

"Je prends le bien où je le trouve."

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ARTICLE XXV.

Observations on Malarial Fever. By Joseph Jones, A.M., M.D., Professor of Chemistry and Pharmacy in the Medical College of Georgia, Augusta.

[Continued from page 676 of October No. 1858.]

CASE XXXII.—Irish laborer, age 23: has been in America eighteen years—the last three years has resided in Savannah. This summer has been "running" on a coasting schooner, between Savannah and the rice plantations on the Ogeechee and Savannah rivers.

July 17th, 12 o'clock M. Has entered the hospital with oedema of the abdomen and lower extremities. Says that he has had fever for three weeks, and that "it was broken by sulphate of quinia and five Quack pills.

Complains of debility and great irregularity in the action of his bowels. Has had no stool for three days. Liver and kidneys appear to be torpid; tongue clean; respiration 20; pulse 64. Under the action of alteratives and tonics, the action of the kidneys, liver and bowels was restored, the oedema disappeared, his appetite and strength returned, and he left the hospital July 30th.

August 18th. Has returned. After leaving the hospital, commenced work in a brick-yard, situated on the Thunderboldt road, in a low, damp, malarious district. The operatives at this brick-yard have always suffered greatly with malarial fever.

His skin is now covered with an eruption, resembling the severest form of lichen agrius. This eruption is thick upon his face, neck and chest. In these regions, and especially upon the face, the papulae are very numerous—prominent—of a vivid red color, and in many places closely aggregated into large clusters,
of irregular form and size. Numerous vesicles and pustules, containing sero-purulent fluid, are mingled with the papulae. From the clusters of papulae, vesicles and pustules, an ichorous or sero-purulent fluid issues which desiccates into yellow crusts. In some places, from the thickening of the skin, the density of the crust, and the depth of the fissures, the disease might be mistaken for psoriasis. On the legs the eruption is much thinner and resembles lichen tropicus (prickly-heat). The vesicles and pustules are so large and numerous that, across the ward, the eruption resembles small-pox. Pulse 100; skin hotter than normal.

B. Bitartrate of potassa, $\frac{3}{i}$; Water, $\frac{f\;3}{xvi}$. Mix. To be taken during the 24 hours. B. Tepid salt-water bath.

August 19th. Pulse 100; tongue red at tip, and coated with yellow fur; skin normal in temperature. Complains of great weakness, dull pain in his head, and bad taste in the mouth. Bowels torpid, have not been moved for two days.

B. Calomel, grs. x., followed with castor oil in four hours.

August 20th. The nurse states that, last night he appeared to be out of his head. Respiration labored; pulse 120, weak. The acceleration of the pulse appears to be due, in part, to the fact that he has just returned from the water-closet, at the opposite end of the ward. Appears to be completely exhausted by the effort, and complains of great weakness.

B. Sulphate of quinia, grs. xv.; Infusion of Virginia snake-root, $\frac{f\;3}{xvi}$. Mix. Tablespoonful every three hours. Continue the bitartrate of potassa.

August 21st. Complains of weakness. Pulse 88; tongue much cleaner, very slightly coated with yellowish fur, tip and sides of tongue redder than normal. Eruption appears to be drying up in many places. Has a peculiar, disagreeable smell, which was evident when he first entered the hospital on the 18th inst., and was not dissipated by the salt-water bath.

B. Citrate of potassa, $\frac{3}{j}$; Water, $\frac{f\;5}{xii}$. Administer a wine-glassful every three hours. Discontinue the bitartrate of potassa. Continue the sulphate of quinia and infusion of Virginia snake-root.

August 28th. Appears to be improving. The eruption is fast drying up and disappearing. The pustules are covered with dried scales. Notwithstanding his apparent improvement, he is very weak and low spirited. During his sickness there has been an unusual depression and dullness in the action of his intellect.

B. Iodide of potassium, grs. v., three times a day.

B. Officinal infusion of quassia excelsa, $\frac{f\;3}{xvi}$.; carbonate of soda, $\frac{3}{j}$. Mix. Wineglassful three hours. Discontinue the bitartrate of potassa. Continue the sulphate of quinia and infusion of Virginia snake-root.

August 30th. This morning, before taking his breakfast, was
suddenly seized with a strong convulsion, which lasted about ten minutes, and was succeeded by stupor. Now, four hours after the convulsion, cannot be aroused by the loudest interrogations, or by violent shaking. Skin moist. The perspiration stands in large beads upon his forehead. Pulse 80.

B. Four cut-cups to back of neck, mustards to extremities, and blister to calves of legs. Castor oil, f 3 j.

August 31st. Had another convulsion at 10 o'clock P. M. last night, after which his left leg appeared to be paralyzed. His left leg and foot continued to tremble from the time of the convulsion, during the night, up to the present time. The left arm is drawn up across the breast, and appears to be paralyzed. It requires considerable force to straighten it, and when released it flies back to its former position, like a steel spring. The left leg also, in like manner, returns when removed from its position.

The oil operated three times. Tongue moist and clean; pulse 96. He is stupid, and it requires loud talking to arouse him, and then he replies only by a low grunt. Although exceedingly stupid his intellect is not entirely gone, for he put out his tongue, after several requests in a loud voice. After having protruded his tongue, he retained it in this posture, notwithstanding loud requests to the contrary. When pressed upon the epigasrtic region, he cries out. Pressure here appears to give him great pain.

B. Apply blister to back of neck, and 4 cut cups over epigastic region. Colomel, gr. i. every three hours.

Sept. 1st. This patient died this morning at 5½ o'clock A. M.

(5). Autopsy five hours after death.

Exterior.—Body much emaciated, complexion normal, eruption quite dry, and the scales commencing to fall off.

Head.—When the skull-cap was removed, about f 3 vj. of blood flowed from the base of the brain. Dura-mater normal in appearance. Arachnoid membrane slightly pearl-colored, opalescent in several places. Blood-vessels of pia-mater, especially at the base of the brain, filled with blood. Much blood, and bloody serum was effused between the dura-mater and arachnoid membrane. Cerebellum and pons-varolii, of a bloody red color upon the exterior. The ventricles of the brain contained an unusual amount of serum. Structure of the brain appeared to be softer than normal, and the blood-vessels were filled with blood, and distinct. Blood-vessels of medulla-oblongata and superior portion of spinal cord filled and distended with blood. Much bloody serum was effused around the spinal cord. No clots were found in the blood and serum effused upon the brain. Weight of brain, grs. 21,655—equals lbs. 3, ozs. 1½.
Chest.—Lungs normal. Heart normal. Both ventricles contained light yellow clots, which appear to have been formed some time before death. Weight of heart, grs. 5031—equals ozs. 11½.

Abdomen.—Liver, color darker than normal. When cut, the color was dark reddish-brown; when squeezed, no bile could be seen issuing from the hepatic ducts; when the cut surface was exposed to the atmosphere its color became redder and brighter, and the venous blood, flowing from the veins of the liver, assumed the arterial hue upon the surface after exposure to the oxygen of the atmosphere. The blood-corpuscles of the blood of the liver presented, under the microscope, a normal appearance. Cells of the liver appeared normal—they were a little paler than usual. The oil globules were large, and in many parts of the liver appeared to be as abundant, if not more abundant, than in health. Trommers and Moor's test showed the presence of grape sugar in the liver. The process of Bernard gave an abundant flocculent deposit of animal starch. When the deposit, precipitated from the decoction of liver, by alcohol, was treated with tincture of iodine, the nitrogenized matters were colored (under the microscope) of a yellowish-red; whilst the animal starch was changed to a beautiful blue and purple color. Weight of liver, grs. 36,312—equals lbs. 5, ozs. 3.

Spleen.—Much enlarged and softened—when pressed between the fingers, feels as if the tissues were giving way. Color, light slate, not so dark as malarial spleens generally, but resembling them in the character of the color and the softening of the fibrous framework. The anterior surface of the capsule of the spleen was attached by coagulable lymph to the peritoneum, thickened and of a white color, from the effusion of coagulable lymph. Pulp of spleen, of a purplish and reddish-brown color. After exposure to the atmosphere, the pulp of the spleen upon its surface, assumed a bright arterial hue. Under the microscope, the blood of the spleen presented the normal appearance—the dark, granular masses were almost entirely absent. Weight of spleen, grs. 12,687—equals lbs. 1, ozs. 13.

Pancreas.—Normal in size and appearance. Weight of pancreas, grs. 1,431—equals ozs. 3½.

Kidneys.—Enlarged, and greatly engorged with blood.—Weight of kidneys, grs. 7,218—equals lbs. 1, oz. ½.

Alimentary Canal. Stomach.—Blood-vessels upon the exterior filled with black blood. Internal mucous membrane generally of a reddish and pinkish color, and in many spots, where the congestion was much greater, the color was much deeper. Brunner's glands, in the duodenum, and Lieberkühn's follicles, in the pyloric extremity of the stomach, and in the pylorus and duodenum, appeared to be enlarged, and gave to the mucous membrane a mammillated appearance.
Small Intestines.—Mucous membrane of a reddish color, with blood-vessels filled with blood, especially at the superior portion. The glands of Peyer, in the inferior portion of the intestines, were distinct, but pale, and without any evidence of congestion. The solitary glands of the inferior portion of the ileum, especially in the region of the iléo-cecal valve, were enlarged. Solitary glands in the superior portion of the colon, also enlarged. Mucous membrane of the stomach and intestines was colored yellow by the bile. The small intestines contained much offensive gas, tenaceous mucous, and fecal matters, colored yellow by the bile. The colon was distended with offensive gas.

It is evident from this autopsy, that the effusion of blood upon the brain was the cause of the death of this patient; for the eruption was fast disappearing—the liver had almost regained its normal hue, its blood possessed the power of changing, upon exposure to the atmosphere, to the arterial color—the elaboration of the bile, animal starch and grape sugar, was performed in a normal manner.

The spleen appeared to be fast recovering from the effects of malarial fever. Although softened and enlarged, still its pulp had regained the power of changing when exposed to the atmosphere, to the arterial hue, and the blood corpuscles appeared, under the microscope, to be normal in form and color. The effusion of blood upon the brain, and of serum into the ventricles, and the softening of its structures, appear to have been the results of alterations of the nervous elements, capillaries and blood.

Were these the results of the action of the malarial poison? The following cases have an interesting bearing upon this question:—

Case XXXIII.—House painter—native of New York: red hair, blue eyes, florid complexion; height 5 feet 9 inches; age 30 years; weight, in health, 160 lbs.

October 20th. Has entered the hospital, with a note from his attending physician, stating that he had an attack of malarial fever three weeks ago. This yielded, in the course of one week, to the action of sulphate of quinia. Since that time, has remained in a very feeble condition.

Lips, tongue, gums and complexion, pale, anaemic. He appears to be suffering from an impoverished condition of the blood.

He was placed upon iron and tonics, and appeared to be doing well, when, upon the night of the 22nd inst., he was seized with convulsions. Had fifteen successive convulsions in the course of three hours, which left him in an insensible condition.
Died comatose, seven hours after the termination of the convulsions.

(6). Autopsy five hours after death.

Exterior.—Complexion pale, anaemic. Did not appear to have lost a great amount of flesh.

Head.—Not examined.

Chest.—Lungs pale, anaemic. Structures appeared to be normal. Heart normal.

Abdominal Cavity. Liver.—Upon a general view, it was of a light slate color, with purplish and brownish reflections. Upon nearer inspection, it presented a mottled appearance—many of the lobules presented the yellow color of cirrhosis. The cut surface presented, upon a general view, a light bronze and purplish yellow color. Upon close inspection, the yellow lobules were distinctly visible. Structure of liver unusually firm—it required great force to tear it: it was enlarged. The yellow color of many of the lobules, and the large admixture of dense fibrous tissue, proves that this liver was in a cirrhotic condition previously to the attack of malarial fever. The yellow color of cirrhosis was masked very much by the characteristic effects of the malarial poison. Bile, of a brownish-yellow color, in mass, and of a gamboge-yellow color, in thin layers. It was tenaceous, like mucus; in fact, it resembled closely colored mucus.

Specific gravity of bile 1022.5.

Spleen.—Enlarged, and softer than normal, but much harder than usual in the active stages of malarial fever. The cut surface presented a compact, dark brown, almost black appearance. Numerous small white bodies, about the size of a millet seed, were found scattered through the pulp of the spleen. I have never before seen the splenic corpuscles so numerous, large and distinct. The exterior of the spleen was of a slate color. The compact nature of the pulp of this organ shows that it was recovering from the effects of the malarial fever.

Kidneys.—Normal.

Alimentary Canal. Stomach.—Small and large intestines presented a healthy appearance.

The cirrhotic condition of the liver pointed to the previous habits of this man. Although the malarial fever apparently yielded to treatment, still its effects, combined with those of intemperance, produced a fatal issue.

Case XXXIV.—Irish laborer, age 40: height 5 feet 10 inches; dark brown hair, brown eyes, dark complexion. In health, weighs 200 lbs.; at the present time, his weight is not more than 100 lbs.

August 13th. Has entered the hospital in an exceedingly feeble condition—says that he has had a severe attack of fever,
complicated with bilious diarrhoea. Appears to have been heroically medicated, and at the same time neglected during his sickness. He is severely salivated, and his mouth, tongue and fauces are covered with small ulcers. Neglected sinapisms and blisters have produced large ulcers upon the epigastric region and upon the thighs and legs. The surface of the body has numerous boils and ulcers, and has a disagreeable nauseous smell. Complexion sallow—anaemic. Says that he is "very weak, and completely worn out with pain and loss of sleep."

Tonics and opiates were administered, and appropriate remedies applied to the mouth and ulcers upon the skin.

August 22nd. Improves very slowly. Mouth still sore, and the ulcers show no disposition to heal.

*Examination of Blood No. VII.*—Blood coagulated slowly. In the specific gravity bottle the colored corpuscles settled to the bottom, leaving above a clear, transparent, yellow clot. In a small shallow porcelain capsule the superior central portions of the clot appeared transparent for several lines in depth.

A portion of blood was set aside in a glass bottle. In twelve hours the clot commenced to disintegrate and liberate its colored blood-corpuscles, and in twenty-four hours the blood gave forth a putrid smell, and the serum was filled with the liberated colored corpuscles, presenting the appearance of blood.

A specimen of blood drawn at the same time from a patient who had recovered from an attack of intermittent fever three weeks before, was placed in the same room, in a similar bottle, by the side of this specimen. The clot, serum and odor of this, remained unaltered for fifty hours.

Specific gravity of blood 1042-4. Serum of a golden yellow color.

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<thead>
<tr>
<th>WATER</th>
<th>SOLID MATTERS</th>
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<tr>
<td>In 1000 parts of Blood, 839.589</td>
<td>In 1000 parts of Blood, 160.411</td>
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<td>&quot; &quot; &quot; Serum, 912.779</td>
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<td>(1) &quot; &quot; Liq. Sang., 90.169</td>
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<td>(2) &quot; &quot; &quot; &quot; &quot; 879.813</td>
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Solid Matters in Serum of 1000 parts of Blood, 80.227.

**Fixed Saline Constituents,**

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<td>(2) &quot; &quot; &quot; &quot; Solid Matters of Blood,</td>
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<td>&quot; &quot; &quot; &quot; Serum, 46.754</td>
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<td>&quot; &quot; &quot; &quot; Blood Corpuscles,</td>
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<tr>
<td>&quot; &quot; &quot; Moist Blood Corpuscles,</td>
<td>12.131</td>
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In Blood Corpuscles of 1000 parts of Blood, Serum of 1000 parts of Blood, 3.770 3.730
August 26th. Left arm is swollen, and painful to the touch. Ulcers upon the surface of the body appear slightly improved. Still very weak. Disagreeable odor continues.

B. Apply cold-water dressing to arm. Infusion of wild-cherry bark, wineglassful three times a day. Huxham's tincture of bark, tablespoonful three times a day.

Sept. 3rd, 12 o'clock M. Lies in a stupor. Has taken a sudden change for the worse. During the last week, has been able to dress himself, and sit by his bed. Cannot now be aroused by hallooing or shaking. This morning passed his urine and feces in bed.

The whole of the left arm, from the shoulder to the tip of the fingers, is greatly swollen. Pulse 140; respiration 28. Temperature of hand, 94°5 F.

B. Administer stimulants freely, in conjunction with the tincture of bark.

3½ o'clock P. M. Lies with his mouth and eyes open, and ap-
pears to be insensible. Skin in a profuse perspiration, which has saturated his shirt and the surrounding bed-clothes. Pulse 128; respiration 33. Temperature of hand, 101° F.

Sept. 4th, 12 o'clock M. Lies in a stupor, with his mouth open; teeth coated with sordes; passes his urine and feces in bed. The odor from his body is nauseating and exceedingly disagreeable. Surface of skin covered with a clammy sweat, which resembles bloody serum. This sweat stains his shirt and the bed-clothes, just as bloody serum would do. Pulse 106; respiration 26. Temperature of atmosphere, 81° F.; temperature of hand, 100°.

Sept. 5th, 10 o'clock A. M. Lies in a stupor, with mouth and eyes open. Every tendon and muscle of his body is twitching and jumping violently. Respiration 42, labored, thoracic, spasmodic, like that of a man during a severe chill. The muscles of the thorax and abdomen shake, and twitch, and jump violently, as in a severe chill. At every inspiration and expiration he emits a sound, like the hoarse bark of a thirsty and starved dog. The muscles of the face contract and relax, and contort in every possible manner, making the most awful grimaces. During these contortions of the muscles of the face, every expression of ridicule, sarcasm, joy, pain, agony, malice, revenge, hatred, are depicted in rapid succession. The jerking of the muscles appear to be paroxysmal—they are very violent for a few minutes, and then moderate for a few moments. The nurse states that it commenced at 8 o'clock P. M., and was much more violent during the night than at the present time. The patients in this ward state, that they were kept awake during the whole night, by his barking and shaking. Pulse 144, feeble. It was very difficult to count the beats of the pulse, on account of the violent twitching of the tendons of the fore-arm. Temperature of hand, 103° F. Skin covered with the clammy sweat, resembling bloody serum. Odor of body intolerable.

7 o'clock P. M. Respiration 40, thoracic, spasmodic; pulse 140. Continues in the same jerking state; spasmodic bark is much lower and hoarser; skin hot.

Sept. 6, 10 o'clock A. M. Lies in the same insensible state, with his body covered with the clammy reddish sweat, and emitting an awful stench. Twitching and jerking and contortion of muscles have ceased. Respiration 38, spasmodic, gasping. Pulse 140. Temperature of hand, 105° F.; Temperature of atmosphere, 80°. He is evidently near his end.

This patient died eight hours after this observation, at 6 o'clock P. M.

His superstitious friends, who had neglected him during life, prepared a coffin before his death, and placed him in it, and drove off half an hour after his death.
Although exceedingly anxious to perform a post-mortem examination, could not resist their earnest entreaties to the contrary.

Case XXXV.*—German Butcher, age 23: height 5 feet 10 inches; light brown hair, brown eyes; weight, in health, 180 lbs.—his present weight cannot be more than 110 lbs.

Has been suffering with chill and fever for two months, and has had no medical attendance until the 25th of September. His physician administered calomel and opium, with a view to salivation, and placed a large blister, 8 inches by 7, over the epigastrium. This plan of treatment appeared to act in concert with the malarial poison, and exhaust his small store of strength.

He came into my hands on the 28th of September, 7 o'clock P. M., in an exceedingly feeble and critical condition. Complexion sallow, anaemic; flesh and strength greatly reduced; nervous and muscular forces very feeble. Pulse 120; respiration 24, labored. Lies in a stupor—cannot be aroused; tongue dry and harsh to the feeling; skin dry and rough in all parts of the body, except just around the nose, where there is a slight moisture.

B. Cut-cup to each temple, and sinapisms to extremities. Sulphate of quinia, grs. v., every three hours, up to grs. xxxv. B. Infusion of Virginia snake-root, f 3 xvi.; Brandy, f 3 xvi. Tablespoonful every half hour. Diet, milk-punch and arrow-root.

Sept. 29th, 11 o'clock A.M. The mustards, stimulants and sulphate of quinia, have aroused him, and he is brighter this morning, but still not restored to the full exercise of the reasoning faculties. Pulse 112, fuller than at 7 o'clock P. M.; respiration 18. Temperature of atmosphere, 80° F.; temperature of hand, 95° 12. Temperature under tongue could not be determined, on account of his restlessness. Tongue slightly coated with yellow fur, dry and harsh to the feeling.

B. Apply sinapisms again to the extremities, and continue brandy and infusion of Virginia snake-root, tablespoonful every hour.

4 o'clock P. M. Examination of Blood No. VIII.—Blood coagulated slowly. In one specimen the coagulation was remarkably slow, and the blood-corpuscles gravitated towards the bottom of the vessel, and left above a clear golden colored clot. This transparent portion of the clot was about one-fourth of an inch in thickness. Serum of a deep golden color. Reaction of serum alkaline. Specific gravity of blood 1036.6; specific gravity of serum 1023.6.

*The alterations of the blood in this case have been previously noticed, by the author, in the May number of the Southern Med. and Surg. Journal.
<table>
<thead>
<tr>
<th>Water in 1000 parts of Blood</th>
<th>Solid Matters in 1000 parts of Blood</th>
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<tbody>
<tr>
<td>840·511</td>
<td>159·489</td>
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<tr>
<td>“” “” Serum, 913·950</td>
<td>“” “” Serum, 80·050</td>
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<td>(1) “” “” Liq. Sang., 912·665</td>
<td>(1) “” “” Liq. Sang., 86·978</td>
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<td>(2) “” “” 882·723</td>
<td>(2) “” “” 117·277</td>
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Solid Matters in Serum of 1000 parts of Blood, 79·135.

Fixed Saline Constituents,

In 1000 parts of Blood,

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1000 Parts of Blood Contained,

Water, 840·511
Dried Blood Corpuscles, 79·434
Fibrin, 0·877
Albumen Extractive and Coloring Matters, 76·508
Mineral, 2·387

1000 Parts of Blood Contained,

Moist Blood Corpuscles, 317·748
Liquor Sanguinis, 682·252

1000 Parts of Moist Blood Corpuscles Contained.

Water, 749·873
Organic Matters, 239·284
Mineral Matters, 10·728

(1) 1000 Parts of Liquor Sanguinis Contained,

Water, 913·022
Albumen, Extractive and Coloring Matters, 83·303
Mineral Matters, 2·647
Fibrin, 0·928

(2) 1000 Parts of Liquor Sanguinis Contained,

Water, 882·723
Albumen, Extractive and Coloring Matters, 112·433
Mineral Matters, 3·498
Fibrin, 1·285
This examination reveals the following changes in the blood:—

1. The fibrin is greatly deficient. The deficiency of fibrin in the blood was farther demonstrated by the fact, that the blood oozed from the cut-cups upon the temples, for 18 hours, and it was finally necessary to check the flow by cold applications.

2. The colored corpuscles are greatly diminished, the dried corpuscles being 79-434, and the moist blood corpuscles 317-748. The fixed saline constituents are correspondingly reduced in amount.

3. The color of the serum is changed to a golden color, and the albumen is diminished.

It is worthy of note, that the reaction of the blood is alkaline, while that of the saliva and urine is strongly acid.

7 o'clock, P.M. Pulse very feeble; feels like the vibration of a delicate silver thread. Owing to its exceeding tenuity and feebleness, cannot be counted with absolute accuracy. The number of beats to the minute lies between 130 and 150.

Respiration 34, thoracic, labored. Tongue dry and rough; feels to the touch like sand paper; skin of trunk and extremities much cooler than normal. Has been taking brandy and the infusion of Virginia snake-root, and milk punch, during the day. Apply sinapisms to extremities, and continue the stimulants, milk and arrow-root.

September 30th, 2 ½ o'clock, P.M. Sinapisms aroused him, and he appears to be more intelligent. Skin warmer; Pulse 112, still feeble, but decidedly better than last night. Respiration 17, full, thoracic. Temperature of atmosphere, 78°F.; temp. of hand, 91°. Tongue slightly coated with yellow fur, moister and softer; surface of blister raw and red; urine of a bright red color; specific gravity 1016. When carefully tested for uric acid, the urine was found to contain only a trace—a few small crystals. Reaction of urine and saliva decidedly acid.

Sulphate of quinia, grs. v., every three hours, up to grs. xx. Continue brandy and infusion of snake-root tea.

October 1st, 2 o'clock, P.M. Restless and stupid. Pulse 100; respiration 16, full, thoracic. Temperature of atmosphere, 79°F.; temp. of hand, 88°5; temp. under tongue, 94°5. The temperature of the trunk is between 4 and 6 degrees below the normal standard. The temperature of the extremities is 10 degrees below the normal standard. Tongue dry and rough; teeth coated with sordes; refuses to take nourishment.

October 2nd, 2 o'clock, P.M. Intellect more active, but still very slow and dull. When aroused, says that he feels easy; has a disagreeable smell. Tongue of a brownish yellow color, and as dry and rough as a fresh sawed board; teeth coated with sordes; pulse 124; respiration 18. The incision in the arm, where he was bled, has not healed. It bled during the night,
and drops of limpid serum are now oozing continually from it. The left side of his head is swollen, and painful to the touch: this compels him to lie upon the right side and arm in which he was bled.

B Tincture of chloride of iron, m.xv. three times a day.

October 3rd, 2½ o'clock, P.M. Pulse 120; respiration 24. The state of his tongue presents a striking contrast with what it was yesterday: it is now moist and soft. Reaction of saliva decidedly acid. During the night his right arm has swollen from the shoulder to the end of the fingers, to nearly twice its natural size; the veins upon the surface are filled with blood; the lancet wound is open and emits a serous fluid. The lancet with which he was bled was carefully washed before its use. The swelling of the arm appears to be due to the interference of the circulation by the pressure of his body, rather than to a poisoned lancet.

B Continue tonics, stimulants, and nutritive diet. Paint the whole arm, from shoulder to tip of fingers with the tincture of iodine, and apply cold-water dressing.

October 4th, 2 o'clock, P.M. Says "that he feels badly; has pain all over." The swelling on the left side of the face, in the region of the ear, and angle and joint of the jaw, continues to increase: it is hard, tense, and painful to the touch. Boils and ulcers are appearing upon various parts of his body. The blister presents a purplish red, unhealthy, raw surface; tip of tongue red and glazed; superior surface coated with brownish-yellow and black fur; tongue is so dry that it is protruded out of the mouth with great difficulty; pulse 120; respiration 24. Temperature of atmosphere, 76°F.; temp. of hand, 100°F. The rise of the temperature in the extremities is probably due to inflammatory action.

October 5th, 2 o'clock, P.M. Says that he is better. Face a little flushed: up to the present time it has been entirely without color; swelling in arm stationary; swelling on side of face continues to increase, and is very painful; pulse 118. Temperature of atmosphere, 73°F.; temp. of hand, 100°.

B Paint arm and side of face with tincture of iodine.

October 6th, 4 o'clock, P.M. Skin hot and dry; has never been moist since his entrance into the hospital. Complains greatly of his head: carotid arteries are throbbing violently; pulse 104; respiration 24. Temperature of atmosphere, 72°F.; temp. of hand, 101°; the temp. of the trunk is about 104°F. Since the commencement of the inflammation his pulse has become fuller and stronger. Slight moisture about the tongue.

B Chlorate of potassa, 3 i.; water, f ³ viij.—Dissolve. Administer during the 24 hours, and continue.

B Compound tincture of gentian, f 3 j.; comp. tinct. Peruvian
bark, f3 j.—Mix. Administer three times a day in f3 j. of the infusion of Virginia snake-root.

October 7th, 4 o'clock, P.M. Arm greatly swollen, and when bent much serous fluid issues from the lancet wound. Surface of blister shows no disposition to heal; ulcers upon the body are increasing; tongue moister and softer than it has been during his sickness. Temperature of hand, 102°F.; temp. of trunk about 104°.

B Continue stimulants, alteratives, tonics and diuretics. Diet, soft boiled eggs, milk punch, wine whey, arrow-root and mutton soup.

October 9th, 4 o'clock, P.M. Appears brighter and stronger. Abscess upon the side of his face has been lanced; it discharged a large quantity of pus; it had formed a communication into the meatus auditorius externus from which much pus issued; pulse 163, probably excited by the lancing of the abscess one hour ago.

October 10th, 4 o'clock, P.M. Skin hot and dry; tongue dry and rough; abscess in the region of the ear, and joint and angle of the inferior maxillary bone, continues to discharge large quantities of pus, and masses of cellular tissue. Arm looks badly; the skin presents a greenish yellow, unhealthy appearance; the cellular tissue appears to be completely infiltrated with serum; when it is flexed, and the tissues thus compressed, considerable quantities of this fluid issue from the lancet cut, which has never shown the least disposition to heal; pulse 180, full and strong; respiration 28. Temperature of atmosphere, 70°F.; temp. of hand, 103°75; temp. under tongue, 104°5.

October 12th. The surface of the blister has commenced to suppurate and discharge an unhealthy looking offensive fluid. It has never shown any disposition, either to healthy inflammation or healing. The ulcers upon various parts of the body have steadily increased in size, and like the blister, discharge an unhealthy offensive fluid, and show no disposition to heal.

October 18th. The arm looks dreadfully; the skin over the biceps muscle is black and gangrenous; digestion bad and bowels loose.

October 17th. The skin over the entire region of the biceps, and over a large portion of the triceps muscle, has sloughed entirely away, and exposed the red quivering muscles. There has been no hemorrhage, but a large discharge of the serous fluid which had infiltrated the cellular tissue. The surface of the blister and ulcers, and exposed muscles, emit a disgusting stench. Bowels are moved frequently.

October 21st. The biceps muscle has sloughed entirely from its lower attachment. It is impossible to give a correct idea of his distressing and loathsome condition. He is completely ex-
hausted and worn out by diarrhoea, and by the discharge from the numerous diseased surfaces.

This patient died October 22nd, 12 o'clock, P.M.

It is surprising, that although the patient has apparently had the exercise of his intellect for the last three weeks, he has never once been heard to utter a complaint. He has been either a man of extraordinary resolution, or else the effects of the malarial poison, in conjunction with the changes which it has produced in the nervous system and all the organs and tissues, have tended to blunt the sensibilities and render the patient callous alike to pain, disgusting odors, and the fear of death. He has nothing in his face to denote an unusual amount of either intelligence or resolution, and the latter appears to be the true supposition.

(7) Autopsy Twelve Hours After Death.

Exterior.—Trunk and limbs greatly reduced in flesh—a skeleton with the skin stretched over.

Head, not examined.

Chest.—Lungs normal, but very pale and anaemic.

Heart, normal. The auricles of the heart contained a quantity of fluid blood, which was carefully examined under the microscope. Colored blood corpuscles appeared normal in color and structure. When the blood was treated with acetic acid, the colored corpuscles disappeared and the colorless corpuscles remained behind. The colorless corpuscles appeared to be more numerous than normal.

Abdominal Cavity. Liver, of a light slate color, approaching in many places to purple and purplish-brown, as if it was returning to its normal color. The cut surface was of a bronze and purplish-bronze color, as if its substance also was returning to its normal color. Structure of the liver unusually firm. Blood-corpuscles of the blood of the liver appeared to be normal under the microscope. The liver-cells were normal in shape—only a little paler than usual.

The Gall-Bladder, was filled with bile of a brownish-yellow opaque color, when seen in mass, and of a gamboge-yellow in thin layers; and with numerous, irregularly-shaped, yellow masses, of various sizes, from an English pea to a grain of sand. These yellow masses formed about two-fifths of the contents of the gall-bladder. These masses were soft and readily crushed between the fingers. Under the microscope, they were found to consist of numerous cells from the mucous membrane of the gall-bladder, and a yellow amorphous matter. The bile duct appeared to be choked up with these cells and this yellow amorphous matter. Sp. gr. of bile, 1036.

Spleen.—Enlarged; surface covered with effused coagulable
lymph, and bound to the liver and diaphragm by bands of coagulable lymph. A large quantity of pus, of a greenish-yellow color, issued from the anterior border of the spleen, which was firmly attached to the liver. Whether the abscess had opened and discharged this pus before death, or whether the abscess was accidently ruptured during the opening of the chest and abdomen, I was unable to determine.

The structure of the spleen felt firm, very unlike the soft, yielding structure of the spleen of the active stages of malarial fever. When cut, many portions of the spleen resembled a dark bronzed and slate colored liver. The pulp of these portions was not soft, and did not pour out, like the pulp of the spleen of the active stages of malarial fever.

The liver-like substance of the spleen was found to consist, under the microscope, of fibrous tissue, and numerous colored corpuscles, and flakes, composed of granules resembling the dark-colored flakes of the black vomit of yellow fever. These flakes were, without doubt, composed of altered colored corpuscles. The colorless corpuscles of this portion of the spleen appeared to be more numerous than normal.

This dark, liver-like substance appears to be nothing more than the pulp (mud) of the malarial spleen, from which the serum has been in a great measure removed, and in which alterations of the blood-corpuscles have taken place, and fibrous tissue formed.

After several hours exposure to the oxygen of the atmosphere, the color of this portion of the spleen was not altered.

In addition to the abscess, opening upon the surface of the spleen attached to the liver, the substance of the spleen contained numerous other smaller abscesses, of various sizes, (two or three largest of the size of a bullet, and the smallest of the size of an English pea,) filled with thick greenish-yellow pus. Portions of the spleen, especially surrounding the abscesses, were altered into a cheese-like substance. Under the microscope, these cheese-like portions consisted almost entirely of pus corpuscles, and large cells, containing granules and other smaller cells, thus resembling cancer cells; and also black masses composed of granules (probably altered colored corpuscles) like those from the dark dense portions of the spleen; and also numerous oil globules. The bodies resembling cancer-cells were not numerous. The pus issuing from the large abscess, resembled ordinary pus, under the microscope, and contained a few of these peculiar cancer-like cells.

Kidneys, normal in appearance. Bladder contained a small quantity of urine, which was normal in color.

Alimentary Canal.—The stomach and small and large intestines were greatly contracted. Blood-vessels of mesentery,
omentum, and exterior surface of stomach, and small and large intestines, engorged with black blood. The mucous membrane of the stomach presented an appearance, resembling that of chronic inflammation. The exterior of the large and small intestines was of a purplish color. The mucous membrane did not appear to the naked eye to be altered in structure. Glands of Peyer, enlarged and distinct; some of them were several inches in length. The glands of Peyer, however, did not present the appearance of active inflammation, as in typhoid fever. They were even paler than usual. The solitary glands did not attract attention. The lymphatics of the mesentery were much enlarged.

CASE XXXVI.—This case is recorded, not as one of remittent malarial fever, but for the purpose of illustrating the pathological changes of the spleen in malarial fever.

Native of South Carolina: age 37 years; height 6 feet 2 inches; weight 200 lbs.; large chest, full, round limbs. Has been living on the river, several miles below the city, in a miasmatic situation. Has suffered for some time with oedema of the extremities, and difficulty of breathing, and great exhaustion upon the least exertion. Complexion sallow, bilious; respiration 34 to minute, laborious—can be heard at a considerable distance; circulation in the extremities very feeble; pulse can scarcely be felt; temperature of extremities below the normal standard. Auscultation reveals a labored, rapid, and strong action of the heart; the sounds are tumultuous and close to each other; the impulse of the heart against the walls of the chest, and the point at which it strikes is much below the usual point; no abnormal sounds could be heard in the large blood-vessels; dulness upon percussion over the region of the heart.

We conclude from this examination, that the heart of this patient is greatly enlarged.

Complexion sallow, anæmic; conjunctiva yellow; tongue clean and pale.

This patient was treated for hypertrophy of the heart, torpor of the liver, and anæmia, with apparent benefit, from the time that he entered the hospital, August 19th, until August 29th, when he was taken suddenly at night, upon his bed, with oppression of breathing, followed in the course of half an hour by profound stupor, accompanied by stertorous breathing. He died in nine hours after the supervision of coma.

The day previous to the fatal issue, he had been walking about the hospital grounds, and said that he was decidedly better. During the whole time that he has been an inmate of the hospital, has appeared dull, stupid, and indisposed to hold a conversation with any one, and has passed most of his time in sleep.
Bowels generally torpid, and when they were neglected for several days, the difficulty of breathing increased, and his lower extremities commenced to swell.

(8) Autopsy Six Hours after Death.

Exterior.—Trunk and limbs round and plump. A close examination showed that this fullness was due to serous infiltration. On making the first incisions through the skin and superficial facia, serum mixed with blood flowed freely.

Head.—When the skull cap was removed, a large quantity of blody serum escaped. Dura-mater presented the usual appearance. A fluctuation of a large quantity of fluid could be felt between the dura-mater and the substance of the brain, and when an incision was made through the dura-mater, a considerable quantity of serum escaped. A considerable quantity of serum was also effused between the arachnoid membrane and pia-mater. The arachnoid membrane presented a decidedly opalescent (pearl-colored) appearance. Lateral ventricles of brain contained an unusual amount of serous fluid. Brain much softer than usual. This could not have been the result of changes after death, for the time (6 hours) has been too short.

Chest.—Lungs congested with blood.

Heart.—Pericardium adherent to the sternum for several inches, and distended with golden-colored serum. The heart appeared to the eye, when the pericardium was opened, to be as large as the heart of a bullock. All the cavities of the heart were dilated, and the walls thickened. The dilation and thickening were greatest in the cavity and walls of the left ventricle. In the right auricle and ventricle, there was a large, elongated, light yellow clot, adherent at one extremity to the columnæ carneæ of the ventricle, and chordæ tendineæ of the tricuspid valve. In the left ventricle, there was a similar light yellow clot, attached at one extremity to the columnæ carneæ, and chordæ tendineæ and mitral valves, and extended full eight inches up the aorta. That portion of the clot which extended into the aorta, was divided into two flattened cylindrical portions, fimbriated at each extremity, as if they had been whipped about for a long time in the current of the blood. The clots in both cavities of the heart resembled, in all respects, fibrin from which the red blood corpuscles had been carefully washed, and were, without doubt, formed previously to death. Weight of heart, grs. 10,500—equals ozs. 24—equals lb. 1, ozs. 8.

Abdominal Cavity. Liver.—Color peculiar, and difficult to describe: mottled lilac and brownish yellow. Upon near inspection of the lobules, they presented the color and appearance of cirrhosis. The structure of the liver was firm, and cut like soft cartilage. The liver contained such a large amount of
fibrous tissue, that after vigorous pounding of slices in a mortar for one hour, they still retained, in a great measure, their consistency. Microscopical examination showed that this tough, resisting substance was cellular tissue. This liver, then, was in a cirrhosed condition. Under the microscope, the cells of the liver appeared paler and flatter than usual. The blood-vessels of the liver were filled with blood, which ran in considerable quantities from the cut surface into the dish. This blood readily absorbed oxygen, and changed to an arterial color. Under the microscope, the blood-corporcles presented the usual appearance. They appeared to be diminished in number. The structures of the liver were infiltrated with animal starch and cellulose. After thin slices had been pounded in a mortar, and carefully washed under a strong stream of water, apparently for a sufficient length of time to remove all the animal starch, and then treated with sulphuric acid, or with liquor potassae, and then treated with tincture of iodine, the large body of it was turned to a blue and purple color, like the cellulose of wood.

As far as the examination extended, the cellulose appeared to enter as a constituent of the cellular tissue of the cirrhosed liver. When tested for grape-sugar, 24 hours after death, no evidence was obtained of its existence. Weight of liver, grs. 30,396—equals ozs. 69 3/4—equals lbs. 4, ozs. 5 1/4. The fibrous tissue of the gall bladder was infiltrated with serum. The gall-bladder contained 3 3/4 ozs. of thin bile, presenting the color of tincture of iodine, when seen in mass, and a gamboge yellow in thin layers.

Spleen—Enlarged and indurated; color of the exterior purplish red. When pressed in the hand, feels dense and firm. When cut or torn, the color and structure resembles that of a healthy spleen, in all respects, except that it has a much larger quantity of fibrous tissue. The pulp of the spleen absorbed oxygen readily when exposed to the atmosphere, and changes to a bright scarlet arterial color. The pulp of the spleen presented nothing peculiar under the microscope. Did not discover those black flakes and granules which were so abundant in the spleen of the patient previously described (Case xxxv). The spleen contained, like the liver, animal starch and cellulose. When the fibrous tissue was washed, and treated in a manner similar to that of the liver, it gave the same reaction, with tincture of iodine. Weight of spleen, grs. 13,343—equal ozs. 30 1/4—equal lb. 1, ozs. 14 1/2. Kidneys unusually small. Weight of both kidneys, grs. 3937—equal ozs. 9.

Alimentary Canal.—Stomach of enormous size: it appeared to be capable of containing two gallons. The small quantity of food which it contained was colored yellow by the bile. Mucous membrane presented a healthy appearance. Small and large intestines appeared healthy.
Passing over, for the present, the discussion of the character of the disease, and immediate cause of death, and many other points of interest, we will confine our attention to the pathological changes of the spleen.

A companion states, that this man resided two years ago on the Ogeechee river, in a low, miasmatic situation, and was very ill with fever during the summer season. He is unable to describe the exact nature of the fever.

From the situation, it is probable that the disease was malarial fever, and it is probable that the pathological alterations of the spleen were due to the action of the malarial poison during this attack of fever. If it was malarial fever, the spleen during the active stages was engorged with blood, softened, and the trabeculae in many places ruptured. When the action of the poison ceased, the serum of the extravasated blood was removed, and the ruptured trabeculae repaired, and numerous bands of fibrous tissue formed throughout its substance. These changes of spleen during convalescence from malarial fever, were plainly demonstrated in Cases xxxiii. and xxxv. Finally, the colored corpuscles of the extravasated blood were disintegrated and removed.

Case XXXVI.—Irishman: pastry cook and baker—age 44: weight 150 lbs.; height 5 feet 9 inches; grey hair, blue eyes—has an old, feeble, decrepit look. Has followed the occupation of pastry cook and baker for thirty years, and during this time has worked the greater part of the night, and slept during the day. In order to keep up his strength, has used ardent spirits freely. The loss of sleep, combined with intemperate habits, have completely broken down his constitution, and he looks and talks and moves like an old man, 60 or 70 years of age. Eight months ago, had a stroke of paralysis which affected his tongue, right arm and lower extremities. Since this, he walks with some difficulty, and has but little use of the right arm. The temperature of the right paralyzed arm is generally from one to three degrees below that of the left.

The following observation was taken on the 7th of July:—

Temperature of atmosphere, 82°5 F.; temp. of hand, (paralyzed,) 96°5 F.; temp. of hand, (sound,) 99° F.; temp. under tongue, 100°26 F.

Under the action of strychnia and tonics, his condition was greatly improved, and he left the hospital on the 20th of September.

He resumed, in a short time, his habits of intemperance, and often lay drunk all night on the commons and in the Park. He was taken up as a vagrant, and placed in confinement by the police. It was soon discovered that he was suffering with remittent fever.
Entered the hospital October 8th, in an exceedingly feeble condition, and died in the course of 24 hours.

(9.) Autopsy four hours after Death.

Exterior.—Not much reduced in flesh. His constitution, enfeebled by his occupation and intemperate habits, did not long withstand the action of malarial fever.

Head.—Dura-mater normal. f 3 j. of clear serous fluid escaped from the space between the dura-mater and arachnoid membrane. Blood vessels of brain did not appear to be more congested with blood than usual.

Chest.—Lungs normal. Heart normal in size. The auricles showed incipient fatty degeneration. Weight of heart, grains 4812—equal ozs. 11.

Abdominal Cavity. Liver, upon the exterior, of a dark slate color. The cut surface presented a bronze and olive color. The cells of the liver contained more oil globules than usual. With this exception, they presented a normal appearance. The blood of the liver did not change to the arterial hue when exposed to the atmosphere. The liver contained animal starch, but no grape sugar: it was set aside, and at the end of 15 hours, again carefully tested for animal starch and hepatic sugar. The result was the same—animal starch in apparent abundance, but no grape sugar. The cellular tissue of the blood-vessels of the liver appeared to be infiltrated by animal starch. Weight of the liver, grains 29,312—equal ozs. 67—equal lbs. 4, ozs. 3.

Spleen.—Of a dark slate color, enlarged and softened; when pressed between the fingers, the structures appear to give way. Pulp of spleen of a dark purplish brown and reddish brown color. After exposure for 20 hours to the atmosphere, the pulp of the spleen did not alter its reddish and purplish brown color. The spleen contained animal starch in considerable abundance, both in the pulp and also in the meshes of the fibrous tissue of the trabeculae and blood-vessels. Weight of spleen, grs. 8093—equal ozs. 18½—equal lb. 1, ozs. 2½.


Alimentary Canal. Stomach.—Mucous membrane presented the usual healthy appearance.

Small Intestines.—Mucous membrane appeared to be healthy. Glands of Peyer, large and distinct, but pale, and without any marks of congestion or inflammation. Several of these glands were three inches in length. The solitary glands, especially in the region of the ileo-caecal valve, were enlarged and prominent. They were about the size of millet seed, and of a reddish brown color.

(To be continued.)
Cases of Disease of the Mucous Membrane. By Tilman Douglass, M. D., of Alexander, Ga.

Case I.—Mr. A. R. Moore, aged 45; stout, well formed, of fair complexion, light hair—a farmer, of excellent character: was attacked, violently, with pneumonia, the 9th of March, 1844. He had fever the preceding fall, and colds and general ill health during the winter. I relied on tartar-emetic, quinine and blisters, stimulating expectorants, &c., under the use of which he was convalescent in a few days.

Some three months after this, Mr. Moore was able to ride about his farm, his usual health nearly restored—he came to see me on account of a small tumor, the size of a cow-pea, on the inside of the right angle of the lower lip, which had enlarged and become very painful, within a day or two. I declined to do anything for it, and advised him to visit Augusta; which he promised to do, but deferred it from time to time, until he thought the tumor ceased to enlarge. Although it still annoyed him, and sometimes excited his fears, he had very little done for it, until the 13th of April, 1846, just two years and one month after the first attack, when I was called to see him in another attack of pneumonia. The cancer, and other symptoms of bad health, had, by this time, so worn him down, that scarcely any hope of his recovery was indulged. None but the mildest and most supporting treatment could be resorted to. But on the 30th of the same month he was discharged apparently cured.

The novelty in this case was, that the very day the pain was felt in the side, and other symptoms of pneumonia were developed, the cancer began to heal, and in a few days the ulcer in the lip was entirely covered over by new cuticle. Nothing could be seen of it except a small excavated cicatrix.

How much he and his friends rejoiced at the supposed happy termination of pneumonia and cancer may be well imagined. But how changed the scene, when in a few days, so soon as he was able to ride, Mr. Moore visited me again on account of the same sore! It had broken out suddenly—was swollen, red, spreading, and intensely painful; the new tender cuticle destroy-
ed, it was an open angry ulcer. The same motives which caused me to decline to touch the cancer, two years before, of course urged me to the same course now.

After suffering all the horrors of this most awful malady, for several months, under the cruel tortures inflicted by the officious ignorance, usual in such cases, death kindly came to his relief.

Case II.—Mrs. S. G., aged 22; light hair, fair skin, blue eyes, weighing about 150, of fine form, and general good health and spirits—the only child of Mr. Moore.

Before proceeding to the details of this case, it may be best to state that Mr. G., the husband of this lady, a fine healthy young lawyer, had his knee hurt in the spring of 1857, while driving an unruly horse in his buggy: a very bad ulcer formed in the wounded part, and subsequently not less than twenty almost literally covered the leg, down to the ankle. As soon as one would heal, leaving a deep, dark cicatrix, others would appear near by.

The point of interest in this case is, that Mrs. G. had ulcers of the same character, on her leg, last fall and winter, which healed about the time of her confinement. Her child was born the 12th of February of this year, and she had a severe attack of dysentery, with discharges of bloody mucus, torrimenta and tenesmus, on the 14th. Cream of tartar and some mild diuretics relieved her very promptly, and she was soon up.

In a few days I was called again to see her, when I found the tongue, mouth and throat red and intensely sore; deglutition very difficult. The disease was confined to the mucous membrane—would spread over a considerable surface in a short time, and subside as quickly. Fever, which abated in the morning and returned at three in the afternoon, caused an increase of the burning pain. The next day, constant nausea, with occasional colic and great prostration, fits of fainting, and lancinating pains through the abdomen, made it but too evident that the whole canal was involved. Quinine soon arrested the fever. Solution of creasote as a gargle, and a very weak solution of creasote into the stomach, followed by iodide of potassium, after the fever was arrested, measurably restored her. But then the returning appetite was tempted by a fine perch, which aggravated all the symptoms, and in two days more severe pain was
found passing down the rectum, followed by discharges of bloody mucus, affording temporary relief. Two days later, the anus, and the vagina and urethra, were invaded by the swollen, pain-
ful, burning disease. Emulsion of spirits turpentine and gum-
arabic was tried, but thought to be too exciting. She has been
taking balsam copaiba with gum arabic, for some time, with de-
cided advantage. Since the fever has given way, syrup iodide
of iron has improved her strength and appetite.

This lady is now, 6th of July, considered well.

Case III.—Mrs. M. C., aged 25: slender frame, tolerably tall,
sandy hair, fair skin, relaxed fibre and very little stamina;
about five years, married; mother of two children. Her hus-
band, a man of feeble constitution, has a troublesome sore on his
leg. His lady had ulcers on her leg. She became pregnant the
first of last year, lived in a sickly neighborhood, and had two
or three attacks of intermittent fever—the last, in September.
The bowels were very obstinately constipated, with tenesmus
and intolerable tormina. Was relieved by quinine, and an
emulsion of castor oil, balsam copaiba and gum-arabic, in small
doses. She was confined the 13th of December, just two months
after the attack in September. On the second day after the
birth of her child, dysentery, of the most violent grade, set in.
The tenesmus and tormina were as severe as in September; and
in addition to that, the stomach was very irritable, and she pass-
ed bloody mucus from the bowels. The stomach, not tolerating
the oil emulsion, she was relieved with small doses of cream of
tartar. This was the 18th January, one month and five days
after the birth of her child.

I heard nothing more of her until the 23rd of April, three
months from the attack of dysentery, when I was called to see
her on account of sore mouth. She said her mouth had been
sore almost ever since I saw her before. The soreness did not
confine itself to the mucous membrane, as it did in the case of
Mrs. G., but penetrated and formed ulcers which secreted pus.
They would heal and then come in other places. For several
weeks she declined in flesh and strength, until she became so
prostrate as to keep her bed constantly. The stomach was irri-
table, and the bowels either constipated or excessively loose.

The treatment consisted of an emulsion of balsam copaiba
with gum-arabic, quinine, iodide of potassium. Washes of various kinds were tried, but diluted tinct. mur. ferri. seemed to afford her most comfort. The irritable stomach was relieved by a very weak solution of creasote. Animal broths were prescribed as a nourishment. Her strength so improved that on the 26th day of May she was carried to her mother's, out of my neighborhood.

All treatment was abandoned, except laudanum given by an old lady, and all rules of dieting laid aside, until the 5th June, nine days from her removal; when diarrhoea set in, and my friend, Dr. David Perkins, was called, who called me in consultation the next day.

We found her prostrated, so as not to be able to raise her head, or even to be raised, without fainting; ghastly countenance, and passing watery discharges constantly from the bowels—with cough and other evidences of the lungs having been invaded by the same disease. The ulcers had left the mouth. The only sore which had remained for any length of time, on the tip of the tongue, had now entirely healed. She lingered on, almost motionless and speechless, till the 30th of June, when she expired.

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**Diphtheritic Affections.**

A late No. of the *Archives Générales de Méd.* contains an interesting paper by M. Isambert on diphtheritic affections and on the malignant angina in Paris in 1855. The following are the author's conclusions:

Diphtheritic affections sometimes appear sporadically; they often seem to be endemic, and also epidemic and contagious. Epidemic influences are often the principal causes. Contagion does, however, really exist, as several medical men have been infected.

Shall we agree with M. Bretonneau, and believe that diphtheritis is not propagated by the air, but is always the result of a kind of inoculation or actual contact of the morbid secretion with a mucous membrane? The author thinks this opinion too exclusive, as also does M. Trousseau.

Diphtheritic affections are generally preceded by initiatory symptoms in the form of bronchitis, with more or less fever. The general aspect of these affections, at an advanced period, is...
of the adynamic kind, except when there is much agitation and convulsive effort brought on by croupy exudation.

These ailments are of a decidedly specific nature; the more they are studied, the more we remain convinced that inflammation is of secondary importance, and is sometimes completely absent.

Relapses are not rare in diphtheritis; this complaint therein differs from other specific diseases; as variola, rubeola, and scarlatina.

The general treatment should be directed against the inflammation, if it be present, which circumstance is, however, rare. Abstraction of blood should be used cautiously in an affection which so soon assumes a typhoid character. Cutaneous counter-irritation should be completely avoided, as the irritated regions soon become centres of new diphtheritic manifestations. Emetics are extremely valuable; and alteratives, mercury, alkaline carbonates, and chlorate of potash, are often useful.

Local treatment is very important, and consists of an energetic modification of the affected surfaces. Calomel, alum, hydrochloric acid, and especially solutions of nitrate of silver, are always indicated.

The patient should, finally, be well sustained, besides taking medicines, as there is a tendency to a typhoid state in this kind of affection. He should also be given tonics, as bark, coffee, and wine; the latter tonic is especially advisable during convalescence after severe diphtheritis.—American Jour. of Med. Sciences.

Epidemic Diphtheritic Angina at Lima. By M. O드리오조라.

About the close of the month of July, 1851, an epidemic gripppe appeared, and suddenly attacked the whole population of Lima, and was fatal, particularly to old people, in consequence of grave pneumonias which were developed in its course. The first cases were observed from the middle to the twenty-fourth of July, and extended rapidly and simultaneously to all the inhabitants of this city, so that, during the height of the epidemic, the streets were deserted for ten or fifteen days. Since that period, we have suffered two other epidemics, one ever memorable on account of the great ravages it caused—the yellow fever, the first invasion of which occurred in the summer of the year 1852, in a benign form, to become grave and fatal in the years '53 and '54; and the diphtheritic angina, which, though not so general or fatal as the preceding, did not fail to secure some victims, notwithstanding the small number of persons attacked.

To this last, which still prevails, we devote a few lines.

If we may rely upon the few and incomplete records left by
our predecessors, relative to the epidemics which have afflicted the inhabitants of Lima, the diphtheritic angina appeared here for the first time in the year 1821, and then, as now, merited the epithet epidemic, because it appeared simultaneously in a large number of individuals. Since that date, we have no notice, nor does there exist any document to show its reappearance until the year 1850, when it attacked, sporadically, a small number of persons, to whom it proved fatal. Four years passed, and in 1855, it extirminated almost an entire family, without extending beyond the house in which it caused such marked ravages. And, in the month of April last, 1858, it appeared again, and from that time to the present, there is scarcely a practitioner who has not had at least two or three cases under his care. It is worthy of remark that our estimable fellow-member, Dr. José J. Bravo, prognosticated the invasion of this disease in February last, on the ground that it had appeared a year and a half ago epidemically at Piura, passed to Trujillo, and thence to Huacho, places where it had some victims, and that it was rational to expect so fearful a guest, which, from its origin, was propagated from north towards the south.

As the diphtheritic or pseudo-membranous angina now prevailing does not differ in its symptoms or anatomical characters from that described by authors under the same name, or from that which we have mentioned as described by Dr. Valdés, we believe ourselves to be excused from entering into details, contenting ourselves, for the present, with merely indicating the class of society in which the diphtheritic angina appeared more especially, the proximate number of sufferers, and the treatment resorted to in preference by a majority of the profession.

It was natural to expect that, once developed amongst us, this disease would find its largest number of victims in the needy class as happens in certain European populations, where it prevails with some frequency; but the contrary has happened, for it has attacked, in preference, persons who enjoy all possible comforts, and in so marked a manner that, in the hospital for men, there has not been a single case, and in that of Santa Ana, for women, there has been only two. The black race, up to this time, has been as resistant to this angina as it was to the yellow fever. It is to be regretted that no data on this point can be obtained from the history of the epidemic of 1821, above mentioned. For this and various other reasons, we have characterized the description by Dr. Valdés as incomplete.

We should have been pleased to present an exact statement of the number attacked by the angina; but it may be readily perceived that such a labor is impracticable, inasmuch as it has not yet ceased, and because it has not occurred in the hospitals, where it might be accurately made.
Notwithstanding the many impediments we have encountered, we have succeeded in obtaining, from a majority of the most respectable practitioners, the number of cases they have treated, with the following results:

Of 70 cases of diphtheritic angina, 49 were females and 21 males; 55 were cured and 15 died. Of the 15 deaths, only two were adults, the rest between 3 and 12 years of age, much the largest number being between 8 and 5 years old. Of the 55 cured, only 5 were under, and the remaining 50 exceeded 12 years of age. The whole 70 patients belonged to the white race. The total number attacked up to this time is between 80 and 90.

The majority of physicians have decided in favor of cauterizations with pure chlorohydric acid, practised two or three times a day, according to the gravity of the case, and emetics of tartar emetic or ipecacuanha, alternately employed. It is not our object, nor is it possible, to decide upon the degree of curative efficacy in diphtheritis which the cauterizations may possess; but we ingenuously confess that this treatment, employed actively from the beginning, has yielded happy results in the greater number of cases, and it has been inefficacious in the most of these cases in which it has been applied two or three days after the development of the disease.

We hope that time and experience will determine the true value of this remedy, which is considered impotent by some of our practitioners. We have employed emetics exclusively for their mechanical effects on the pharynx, favoring the expulsion of the false membranes; but it may be said, in passing, that their abuse in children produces more hurt than advantage, and they do not tolerate them as well as adults, in whom we have observed no accident, although fear caused by the gravity of the disease, may have induced us, perhaps, to carry them further than we ought. As purely auxiliary, we have used opiate gargles, and the liquor of Labarraque. We know that some have employed different therapeutic agents in this angina, such as bark, internally, baths, gargles, and cataplasm of a concentrated decoction of the same, sulphate of quinine, cauterizations with a concentrated solution of nitrate of silver, or sulphate of copper, &c., &c.; but we are entirely ignorant of the opinion which should be formed as to their utility.—[Gaceta Medica de Lima. Organo oficial de la Sociedad de Medicine, and Ib.

Diphtheria, or Diphtherite. By David Thompson, Esq., of Lancaster.

About three years since, this neighborhood was visited by an epidemic of this rare disease. The first cases occurred in the
Diphtheria, or Diphtherite.

town, and no others then appeared for several months, when it again broke out in the district north of this place, where it prevailed for several months, whilst the south side was comparatively free from it. From the north, it gradually spread, until the whole line of country had been visited by it. There appeared to be no difference in the geological nature of the country, the level, or the aspect, in increasing the severity or granting an immunity from the disease. The premonitory symptoms varied somewhat. A few retired to rest comparatively well, and awoke in the morning with the throat sore, and covered with white deposit. In the majority it was preceded by all the ordinary symptoms of pyrexia, of which headache was one of the most severe, followed in the course of a day or two by the usual throat symptoms. An extreme feeling of depression, not to be accounted for, by the amount of mischief in the throat, was a characteristic symptom in each case. An external examination of the throat showed the tonsil generally to be swollen, hard, and tender to the touch; while sometimes the parotid gland participated in the swelling. Internally the tonsil was swollen, and either covered with the diphtheritic deposit, which frequently extended over the pharynx, and sometimes into the nares and palate, or else it would be scooped out into an ulcer, with raised violet-coloured edges; the floor exhibiting a dark ash-coloured slough. In some instances there would be no deposit or ulceration at first, but simply the tonsil painful and enlarged. These cases generally changed for a state of ulceration, which began in several distinct spots, and gradually spread over the whole tonsil. In the most severe examples, the tonsils sometimes sloughed en masse. I saw one instance in which this occurred, in an early stage of the disease; and where now (two years since it occurred) a cavity remains, capable of containing a pigeon's egg, across the surface of which extends a small band of mucous membrane, which did not slough at the same time, and gives great inconvenience, from retaining the food impacted in the hollow during deglutition.

I have seen no case in which I could detect the extension of the disease into the oesophagus; but in many it has entered into the air-passages, this being the most frequent and most fatal complication. Of 485 cases that came under my own observation, the instances in which the air-passages became involved in the disease amounted to 15; and of this number 11 died, the greater number within a few hours after the first symptoms of croupy breathing began. The false membrane formed on the tonsil and pharynx extended into the larynx, trachea, and frequently far into the minute divisions of the bronchi. In one instance, a girl aged 17 expectorated, within twelve hours after the first symptoms of croup made their appearance, a complete
Diphtheria, or Diphtherite. [November,

cast of the larynx, trachea, and bronchial tubes, extending to the fifth division of the bronchi; in a few hours afterwards, a fresh membrane formed, and she died from suffocation.

In many instances, I saw numbers of minute casts expectorated from the lungs, whilst at the same time a stethoscopic examination gave all the symptoms of capillary bronchitis. A gentleman aged 46, died from this condition of the lungs. His throat was first affected. After a few days, the breathing became impeded, with all the ordinary symptoms of capillary bronchitis in the first stage, the throat continuing to improve. He gradually sank, constantly expectorating casts of the small tubes, precisely similar to the deposit in the trachea.

I kept accurate notes of 125 of the most severe cases, including all the deaths.

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The deaths, with two exceptions, were all below fifteen years of age; and, with two exceptions, were all from affections of the air-passages. In the two who died from other causes than affections of the air-passages, death occurred in one from the sloughing of a blister, applied for three hours to the upper part of the sternum; and in the other from extreme debility remaining after recovery from croup. There was a very remarkable tendency for blistered surfaces to take on unhealthy action; and I frequently saw the irritated surface covered with a deposit similar to that on the throat.

A strong similarity appears to exist between this disease and scarlet fever, so strong, as almost to lead one to hazard the opinion that it may be a modification of that disease. The following are the reasons for considering so:

1. Diphtherite prevailed in this neighborhood as a contagious (?) epidemic at the same time as well-marked scarlet fever, and chiefly among children.

2. In the same house, the father and mother had well-marked scarlet fever severely without any ulceration or deposit on the throat; while the three children had all the marked symptoms of diphtherite, without much feverishness and no rash, though attended by the same premonitory symptoms, the cases occurring at the same time.

3. In many instances, cases of apparently pure diphtherite were, after some days, attended by a rash, that seldom remained more than a few hours.

4. The disease in most instances commenced with all the symptoms of fever, its duration being similar to that of scarlet.
5. In cases of apparently pure scarlet fever, the throat became, after a few days, covered with diphtheritic deposit.

6. The sequelæ of the two diseases nearly resembled each other; albuminous urine, with casts, being present in eight cases of diphtherite, and anasarca proving fatal from convulsions in one.

It would occupy too much space to give more than a mere outline of the subject; but future and more extended experience than mine may prove whether there is any connection between the two diseases. Deafness was a not unfrequent sequela of diphtherite and temporary paralysis; in all instances these were recovered from. I have only known one case of diphtheritic ophthalmia to have occurred in the neighborhood. In that instance, the deposit extended over the lower half of the conjunctiva.

The treatment most successful was the early and thorough application of lunar caustic to the throat, together with the use of a stimulating gargle of nitrate of potass. and capsicum, or solution of chlorinated soda (Beaufoo's) diluted. When there was much feverishness in the early stage, an emetic appeared sometimes to benefit. Mild but continued counter-irritation over the upper part of the chest appeared of great service. General treatment, beyond keeping the secretions regular, was of little use, and frequently injurious. Depletion of any sort did an infinite deal of harm. Stimulants were often required in an early stage. The chances of recovery when croup set in severely were but small. The only chance seemed to be, in the rapid exhibition of small doses of calomel- and ipecacuanha, with stimulants. Under this treatment, four out of fifteen recovered who were affected with this complication. Tracheotomy was tried, but of no service, as the false membrane extended beyond the trachea.

In the number of the Lancet for, I think, the year 1832, there is a most characteristic case described by Dr. Alison, of Edinburgh, as having occurred in the Royal Infirmary, and which terminated, as the fatal cases here did, in croup.

A careful microscopic examination of the white deposit showed nothing different from the usual appearances of exuded lymph. British Med. Journal, and 1b.

On the lately prevailing Diphtheritic Affection. By Dr. William Camps.

This affliction has been variously designated—as croup, croupy diseases of the throat, malignant sore throat or erysmafe maligna, diphtheritis or diphtherite, throat affection, prevalent sore throat, &c. Under one or other of these terms, there could now no longer be any doubt that a disease lately prevailed, and
On the Prevailing Diphtheritic Affection. [November, 1870]

Did still exist, with more or less intensity, in various parts of the United Kingdom, including the metropolis. The public health authorities had, in their periodical documents, of late solicited information respecting it, under the term diphtheria. Dr. Camps states that his attention was directed thereto, in the first instance, by noticing in one of the quarterly returns of the Registrar-General an unusually large number of deaths from croup, as having occurred in a rural district, with the population and locality of which he was tolerably well acquainted.

It was well known that a form of pharyngeal inflammation had been investigated and described some years ago by M. Bretonneau, of Tours, and that to this disease he gave the name of *diphthérile*. It was probably from the analogy observed between the disease lately prevailing here and that described by M. Bretonneau, that the former was now commonly spoken of as diphthérile, diphtheritis, diphtheria, or diphtheritic disease. M. Bretonneau and some other French authorities appeared to have regarded it as almost, if not absolutely, identical with the ordinary inflammatory croup of this country; and Dr. Watson in his lecture on croup, appeared to regard Dr. West as holding the opinion that diphthérile is a variety of croup—an opinion in which Dr. Camps did not concur. Whether in this country or in France, this disease had heretofore appeared rather as an epidemic than as a sporadic affection; and the author was of opinion that many of the cases of throat disease which proved so fatal not long since at Boulogne, might have been cases of diphthérile. Here it assumed quite an epidemic character; and in all the severer and fatal instances of the disease in this country that had come to the author's knowledge, such cases had occurred in tolerably rapid succession as to time, and in tolerably close proximity as to place. He hesitated to commit himself without reserve to the question of its contagiousness, although he believed that practitioners in France entertained that opinion.

The type of the disease in its severest forms, he considered to be essentially asthenic or adynamic; and, therefore, attended with more or less languor, depression, and diminution or impairment of vitality, thus indicating most clearly the appropriate mode of treatment. Of late, in many of the metropolitan dispensaries and hospitals, stomatitis had been very prevalent; and in the judgement of the author, there existed between stomatitis and the diphtheritic affection, now under consideration, a very close analogy or resemblance. He regarded the former as the standing off into a milder form of the latter, yet both as the result of the same morbid general cause; so that the difference between the two should be considered as one of degree, rather than of kind. The tendency to the production of plastic, pseudo-membranous exudations, as observed in these
diseases, was one mode of denoting the existence of an adynamie or low form of inflammation; and the correct appreciation of this condition was of the highest importance in the treatment.

A description of the disease, as detailed by M. Bretonneau, was then briefly adverted to by Dr. Camps, who then stated that he was indebted to Dr. H. W. Fuller, of St. George's Hospital, for having drawn his attention to a record of cases of diphtheritis that had occurred in 1849 at Haverfordwest, in the practice of Mr. Brown, of that place, and which that gentleman had communicated to the "Medical Times and Gazette." Mr. Brown in that year had had no fewer than two hundred cases, forty of which had proved fatal; and in some of these death had ensued in a few hours from the seizure, others lingered on for some days. In its course, Mr. Brown said that some of the little sufferers appeared to get through it easily; while others lingered for weeks with slight but deceitful symptoms. The treatment adopted by Mr. Brown was referred to by the author at some length. He affirms that he did not lose a patient in whom he succeeded in establishing ptyalism. That gentleman advocated the topical application of solution of nitrate of silver; in regard to constitutional treatment, he depended upon calomel in combination with ipecacuanha, in doses varying from half a grain of each, every four or eight hours. He found, moreover, emetics of great service in the first stage of the disease; they then always relieved the distress in breathing, carrying away large quantities of mucus. The only cases that proved fatal under his care were those in whom the pharynx and the larynx were simultaneously affected. The post-mortem examination of all the fatal cases that had come within the author's knowledge, showed the pharynx, tonsils, larynx, trachea, and upper part of the bronchi, to be more or less coated with plastic, pseudomembranous exudation. Reference was made by the author to the occurrence of the disease in various parts of the country; namely, in Essex, Norfolk, Lincolnshire, Staffordshire, Worcestershire, Lancashire, Devonshire, and in the metropolis.

With reference to the cause or causes of this and similar diseases assuming an epidemic character, it was usual to regard such as the results of some specific epidemic influence or agency, operating upon the human system through the blood. This explanation, or attempted explanation, the author stated, was by no means satisfactory to his own mind, however much so it might be to the minds of others.

From all the facts or particulars which Dr. Camps had been able to collect respecting this disease, he was disposed to draw the following conclusions:—

1. A disease very analogous to, if not identical with, that described by M. Bretonneau as diphthérite, had existed in this
country, and had prevailed with more or less intensity during
the last few years.
2. This disease was mainly, if not essentially, of an asthenic,
adynamic type; and characterized in the severer cases by the
formation of plastic pseudo-membranous exudations.
3. This disease was primarily pharyngeal as to its seat, and
not laryngeal, except secondarily, and by complication; thus
differing anatomically from croup.
4. Its difference from stomatitis was a difference of degree or
intensity, rather than a difference of kind; and that one chief
point of difference from the malignant sore throat, consequent
upon scarlatina, consisted in the tendency to the formation of
plastic pseudo-membranous exudations.
5. In many instances this disease possessed the characters of
an epidemic disease.
6. Its low adynamic type clearly indicated the mode of treat-
ment to be adopted; which in the author's judgement, should
be both topical and general. The topical consisting of free ap-
lications of a strong solution of nitrate of silver to the parts
affected, composed of from one scruple to two drachms of
the nitrate to one ounce of distilled water; or similar applications
of chlorine or hydrochloric acid; the general treatment compris-
ing the repeated administration of chlorate of potassa, with
chlorine, or a combination of cinchona bark, or its alkaloid salts
with the mineral acids; and in the severer cases, calomel in
repeated doses, so as to produce ptyalism. Emetics in the early
stages of the disease have been given in some cases, and with
good result. In addition, the vital powers of the system must
be well sustained by liberal administration of wine, stout, beef-
tea, and other invigorating means.—[British Med. Journal.

On some of the more Obscure Forms of Nervous Affections: their
Pathology and Treatment. With an Introduction on the Physi-
ology of Digestion and Assimilation, and the Generation and
Distribution of Nerve Force. By Harry William Lobb, L.
S. A. and M.R.C.S.E.

Mr. Lobb, in the first part of his work, advances opinions,
both in physics and physiology, which are diametrically oppo-
sed to those ordinarily received. One or two examples will
convey a notion of Mr. Lobb's matter and manner.
Adopting a system of molecular physics (which would seem
to have scarcely any other foundation than ingenuity) he makes
this the master-key with which to unlock several of the myste-
ries of physiology. He assumes that "the ultimate atoms of all
matter are spheroids in a state of vibration" (p. 6); vibration
gives rise to certain definite currents; "currents in the spheroid produce rotation; rotation will continue the currents; they, therefore, contain within themselves the elements of their own existence" (p. 8); the currents are electrical currents, and as a consequence we have the conclusion that, as no change of any description can take place in matter without causing currents of electrical fluid, and as the combinations and disruptions which take place during an act of growth, and which occur through the agency of what is termed vital force, or as Mr. Lobb prefers to term it, cell force or cell electricity, are always accompanied by molecular changes, therefore, "Vital force is merely a modification of that remarkable fluid pervading all matter and space, always aiming at equilibrium and yet so easily disarranged" (p. 11).

Mr. Lobb's views will scarcely supersede the views of Mr. Groves and Dr. Carpenter, the former of whom has dealt most ably with the physical relations of electricity, and the latter with the physiological. (On the mutual Relations of the Vital and Physical forces, "Phil. Trans." 1850, Part II.)

Mr. Lobb advances a theory of the formation of chyle-cells. He states that the initial step in the formation of the cell is the vibratory movements of certain minute crystals of phosphate of lime. These crystals during vibration become coated with the proteine and oily compounds of the chyle forming molecules. "When many of these molecules are formed, they, upon approaching one another, become attached in a line like a small string of beads, vibration still continuing; when a certain number are thus joined, they double one upon another, forming a nucleus, to which minute atoms are continually added until a tolerable aggregation is the result; this is a mass of molecules. The external atoms now proceed to form a cell wall, which, in this period of its existence is completely invisible: but it consists of minute atoms, between which are still smaller interspaces, which admit of the passage of fluids," &c. (p. 31). A sad shortcoming of this theory is the absence of all proof of the process of formation here said to take place.

As another example of Mr. Lobb's mode of reasoning, the following may be quoted: "Carbonic acid gas is constantly, day and night, winter and summer, although in varying proportions according to circumstances, being excreted by the blood in the lungs; the repair of tissue surely does not require this immense waste of material. The most idle man—the fat unwieldy inhabitant of the Eastern harem, who is afraid to move lest she should lessen her value in the eyes of her lord by losing a portion of her obesity, eats largely. Merely to throw off this waste from the lungs? Surely not; there must be a cause, and it is this.

"The nutriment absorbed by the lacteals, converted into
albumen, fibrine, and blood cells, is conveyed into the most minute intensity of the organism by the capillaries; here the oxygen brought by the blood seizes upon some hydrocarbon with which to unite, giving rise to molecular change—to currents of electricity; these currents are collected by the nerves always accompanying the vessels, and serve to feed the nervous system; at the same time, some portion correlates into animal heat, &c. It is then to feed the nervous system that this tissue-change, beyond that really required for repair, is constantly going forward, and so much carbonic acid is excreted from the lungs. It is not, then, a wilful waste, this apparent carbon; on the contrary, life could not last without it—nervous energy would lessen, the extremities and skin would get cold—circulation would become sluggish, and death eventually ensue" (p. 82).

It is certainly, a somewhat novel view to regard the carbonic acid given off by the lungs as wasted material, seeing that that gas is commonly regarded as a deleterious product of the decay of some, and the metamorphosis of other tissues, and of the reduction of the carbon of the food, which reduction has especial reference to the maintenance of animal heat. No question of physiology has been more carefully and successfully investigated than that of the sources of the carbonic acid given off from the lungs, and its relationship to the amount and quality of food taken, and of the degree of metamorphosis going on in the different tissues of the body; but Mr. Lobb appears to ignore altogether the results of the researches on this question. Mr. Lobb, moreover, does not seem to be aware that the electrical conditions arising from changes going on in the intimate structures of the body, particularly in the nerves and muscles, have been made the subject of most successful experimental research by M. E. de Bois-Raymond and others, and that, in consequence, theories upon this subject which are not based upon experiment, are neither necessary nor admissible. When Mr. Lobb makes use of the expression "correlates into," e. g. "some portion (i. e. of the electricity) correlates into animal heat" (p. 83); he betrays a singular misapprehension of the signification of the term correlation.

In the second part of his work, Mr. Lobb treats of "certain affections of the nervous system, the symptoms of which are obscure, and which, if not alleviated, would develop themselves into organic degeneration, fatal disease, or insanity." He expresses the opinion that the affections of which he treats depend upon "partial paralysis of some portion of the sympathetic system of nerves, either of their centres or their peripheric terminations, thus upsetting the healthy process of digestion and assimilation in some portion of its extended course, causing functional derangements, nervous irritability, and frequently
sympathetic complication of the most important organs" (p. 124). He discusses the nervous affections which accompany certain morbid conditions of the urine, Bright's disease, and diabetes. He discusses, also, spermatorrhoea, stammering, hysteria, chorea, and epilepsy; diet and regimen, certain medicinal preparations, and the therapeutics of galvanism and electro-magnetism. He adds nothing new to our knowledge of the affections of which he treats, and his therapeutics are in great measure derived from the peculiar views which he entertains on the physiology of digestion and assimilation.

That portion of Mr. Lobb's work which is devoted to spermatorrhoea would appear to be written rather for the public than the profession. — [Ranking's Abstract.

The Effect of Local Influences on Spasmodic Asthma. By Dr. Hyde Salter, Assistant Physician to Charing-cross Hospital.

The purport of this paper is to show that, in a very large proportion of cases of asthma in which it has been fairly tried, change of locality effects an instantaneous cure, which is permanent as long as the asthmatic continues his residence in the place that has cured him. The author remarks that, although the subject of his paper is a single method of cure of a single disease, yet that the efficacy and completeness of the cure, and the painfulness and intractability of the complaint, vindicated it from unimportance; and, indeed, that in so distressing and unmanageable a disease, any remedy that offered even a small percentage of cures might be considered the greatest possible boon. The paper is illustrated by nearly thirty original cases, and the points that the author considered to be established are as follows:

1. That residence in one locality will radically and permanently cure asthma resisting all treatment in another locality.
2. That the localities which are the most beneficial to the largest number of cases are large, populous, and smoky cities.
3. That this effect of locality depends, probably, on the air.
4. That the air that would be imagined to be the worst for the general health is, as a rule, the best for asthma; thus the worst parts of cities are the best, and conversely.
5. That this is not always the case, the very reverse being sometimes so—a city air not being tolerated, and an open, pure air effecting a cure.
6. That there is no end of the apparent caprice of asthma in this respect, the most varying and opposite airs unaccountably curing.
7. That, consequently, it is impossible to predict what will be the effect of any given air, but that probably the most opposite to that in which the asthma seems worst will cure.
8. That some of these differences, determining the presence or cure of asthma, appeared to be of the slightest possible kind, arbitrary, and inscrutable.

9. That the mere conditions of locality appear to be adequate to the production of asthma in a person whose disposition to it was never before suspected, and who probably never would have had it, had he not gone to such a locality.

10. That, consequently, probably many healthy persons who never have had asthma, and never may, would have been asthmatics if their lot had been cast in other localities.

11. That possibly there is no case of asthma that might not be cured if the right air could only be found.

12. That the disposition is not eradicated, but merely suspend-
ed, and immediately shows itself on a recurrence to the original injurious air.

13. That change of air, as change, is prejudicial.

14. That, from the caprice of asthma, the constancy of the result in any given case is often deranged.

In reference to the frequency with which London air is ben-
eficial to asthma, the author remarked that he was in the habit of putting to country asthmatics the two questions—"Have you ever been in London? have you ever had asthma there?" and that, if an affirmative answer was given to the first question, a negative one was pretty sure to be given to the second. In his own experience he had found hardly any exception to this rule.—[Lancet.


By M. Demarquay.

M. Demarquay observes that although many observations have been made upon the modifications of the temperature pro-
duced by internal diseases, with the exception of Hunter's upon inflammation, and some researches upon the effects of ligatures on large vessels, nothing has been done with respect to surgical affections. He treated upon the subject in his inaugural disser-
tations in 1847, and since then has continued to pay attention to it; and the present memoir is an account of some of the results of his observations.

The pyrexia following amputations and other operations is accompanied by an elevation of temperature proportioned to the amount of reaction; but when the case becomes complicated by other phenomena, as phlebitis or erysipelas, the temperature may undergo notable variations. Thus, in a case of amputation, of the thigh, followed by phlebitis and purulent affection, the thermometer has risen from 97° or 99° to 104° Fahr.; and although this increase may seem in itself but trifling, yet the
observations of Andral and others have noted but a few degrees of elevation only, even in the intensest fevers. If, however, the elevation of the general temperature is inconsiderable, that is not the case with respect to the local temperature. Thus, in phlegmon and erysipelas, comparing the condition of the afflicted parts with that of the healthy ones, it has been found that while the general temperature of the body may have undergone a notable increase, exceeding that of the neighboring parts by from 2° to 5° C. All serious wounds which produce febrile action induce an elevation of general and local temperature, but when the membrane covering the granulations has become well organized, the temperature is then found to be like that of the surrounding parts; so that ice applied under such circumstances would abstract normal, not morbid, caloric. Experimenting upon dogs, too, the author has observed that the application of ice leads to a considerable falling of the thermometer in the case of subcutaneous wounds. The same experiments showed that a wound that had undergone such diminution in its temperature, quickly recovered this, and went beyond it, the temperature of the wound thus undergoing a series of elevations and depressions, according to the quantity of ice employed, and its degree of fusion. It is evident that such a powerful modifier requires great reserve in its employment; and most of the Paris surgeons reasonably prefer in the case of great breach of surface, tepid irritations to these freezing applications. As to the temperature in aneurisms, MM. Demarquay and Monneret have on several occasions observed in arterioso-venous aneurisms of the lower extremity, an elevation of from 1° to 2 ½° C.; but they have never observed a similar difference in the case of such aneurism existing at the bend of the elbow. When in a limb, the subject of aneurism, the circulation has undergone no considerable disturbance, no important variation of the animal temperature is observable; but when complications, such as phlegmon, are present, an elevation of 2° may take place. After ligature of the femoral and humeral arteries, the author has found a diminution of temperature to take place, and the experiments upon animals which he had made with MM. Duméril and Lecointe demonstrate the accuracy of the assertion, that every ligature of an important artery, performed so as to avoid all injury to the veins and nerves, give rise to a diminution of the temperature of the limb beyond the ligature. A priori, a considerable modification in the temperature of a limb might be expected in limbs suffering from senial gangrene; and the author has been somewhat surprised to find only a difference of 1½° or 2° C. between the two limbs, except in one case, when the difference amounted to 5°.

The following are the conclusions of the memoir: 1. Purulent
infection and erysipelas give rise to an elevation of 2° to 3° C. 
2. Circumscribed inflammations, as phlegmon or local erysipelas, give rise to an increase varying from 1° to 5°. Ice quickly gives rise to a temporary diminution, but the parts afterwards not only recover their former temperature, but exceed it. 3. A true aneurism, if the limb is healthy, give rise to no change of temperature, but arterioso-venous aneurism, and especially in the lower extremity, increases it by 1° to 2½° C. 4. Hunter and his school have examined into the effects of ligature of vessels on the temperature, but have arrived at contradictory results. From my observations it follows that ligature of the artery and the vein in arterioso-venous aneurism of the lower extremity, give rise to an elevation of temperature; while when the principal artery of a limb is alone tied, there is always a diminution of temperature. 5. In senile gangrene there is always a diminution of temperature of from 1° to 5° C, in the parts situated above the mortification.—[Comtes Rendus. and Ranking’s Abstract.

On the Absorption of Medicinal Substances by the Large Intestine.

By M. Briquet.

The object of M. Briquet’s two memoirs is the study of the absorption of medicinal substances introduced into the large intestine by means of clysters. The following are the general conclusions he has arrived at:—

1. The fluid constituting the injection may easily reach as far as the cæcum, and consequently may be brought into contact with a very large extent of absorbing surface. 2. The mucous membrane and the fluids that bathe its surface do not exert any chemical action upon the substances so introduced into the large intestine, where all that is absorbed is that which was previously in a state of solution. 3. When a clyster of the soluble salts of quinine, in doses less than 15 grains, is administered, rather more than a third of the quantity so administered is eliminated, and has consequently been absorbed. 4. When large doses are administered, they are ill-supported, and only a fifth or a sixth of the quantity is absorbed. 5. In whatever dose the quinine may have been given, it generally gives rise to cerebral symptoms only very slowly and to a slight degree. 6. Traces of elimination and consequently of absorption are only met with an hour after the administration of a clyster, and even then the elimination is incurable. 7. The duration of the elimination is usually short—two or three days at the utmost. 8. The greatest or less dilution, within certain limits, the more or less viscous nature of the liquid, or the addition of the salts of morphia to the cinchona alkaloids do not exert any sensible modification on the absorption.
9. Absorption takes place more readily in the young than in the adult; and is performed with difficulty in the aged of either sex. 10. The salts of quinine, administered in clysters in doses of less than 15 grains, exert the same effect as when given in moderate doses by the mouth, and may be very well substituted for these. 11. But this is not the case with large doses, which are never absorbed in sufficient quantities to produce energetic effects. 12. The large intestine will rarely tolerate a larger dose than 30 grains of the sulphate. 13. These conclusions more or less exactly apply to the various substances administered by clysters. 14. The apyrexic is notably more favorable to the absorption of medicinal substances than the pyrexic condition. 15. The typhoid condition favours such absorption less than other states of phlegmasia. Nevertheless it is more energetic than hitherto supposed, being only about a tenth inferior to the absorption taking place in the pyrexic condition. 16. In diabetes, the absorption of medicinal substances appear to be very feeble in the intestines. 17. In certain diseases, the tolerance or intolerance of medicinal substances may depend upon a special susceptibility rather than upon variations in absorption. Thus, in hysteria the tolerance of opium nowise depends upon an absence of absorption but results from a special susceptibility. 18. The rapidity with which medicinal substances, such as the salts of quinine, are eliminated, is in a direct ratio with the quantity of urine passed. This rapidity is the exact measure of the time which the economy takes to rid itself of the greater part of the fixed substances taken medicinally. 19. The absorption of medicinal substances analogous to the salts of quinine is far more rapid in the young. 20. It is less active in females than in males, in the proportion of a sixth to an eighth. 21. Abstracting from a medicinal effect the portion due to the quantity of the substance absorbed, the remainder gives the measure of the susceptibility of being influenced by the medicinal substance.—[Bulletin de l'Acad. and American Jour. of Med. Sciences.

The Uses of Pain.

Mankind are so accustomed to shrink from pain, and so eager in seizing upon every means to lessen or annul it, that the facts of our having been endowed with it, as with a sense, by a benificent Creator, and with the kindest intent, does not readily impress us. Yet that this is strictly true, daily observation teaches. Without pain to act as a sentinel, the body would almost momentarily be injured, perhaps hopelessly so, and Death would revel in such wise as that the race would soon be extinct. This is hardly an exaggerated statement; and a little reflection will enable any
The Uses of Pain.

[November,

one to realize the immense amount of evil which would ensue to us all, were the "sense of pain" abolished.

A very interesting and instructive article, in a late number of the Quarterly Review, is transferred to the pages of the Living Age of the 24th of April, 1858. It is a critique upon "An Essay on the Beneficent Distribution of the Sense of Pain," written by Mr. G. A. Rowell, Honorary Member of the Ashmolean Society, and Assistant Underkeeper of the Ashmolean Museum. Most of the details are familiar to medical men, but any reader will be delighted with the pleasant style of the review, the entertaining illustrations and the facts communicated. It is a paper calculated to do good to the general reader in many ways; and not the least by the noble sentiments with which its last two or three pages teem. We allude to the remarks upon cruelty to animals. Many seem now to believe, as did Malebranche, that dogs, horses, and such like animals do not feel, and that, therefore, any amount of abuse, by means of kicks, blows, goading and spurring is admissible. We say many persons seem to suppose this, for although they hear a dog howl if kicked, and know that a horse springs forward under the spur, they do not realize, or do not think, how much unnecessary pain is inflicted by them, in their gusts of temper, upon animals almost always innocent of any fault.

To recur to our first topic—the wonderful guardianship over the bodily organs, so kindly established for us through the agency of pain. How few think of the subject in this light. Accustomed too much, to look upon pain as an unmitigated evil, we are apt to concentrate our hatred upon it, rather than to recognize its function; and we strive only to remove it, without seeking for its cause. The latter task is, it is true, mainly the province of the followers of the healing art; yet how much may others learn by properly considering their own sensations.

Pain is an evil, then, but it is also a blessing. It is composite in its essence; and in this it resembles many medicinal agents, which, whilst effecting a certain good, are exceedingly unpleasant in their action. Of course it would be foolish to term pain a good in itself, and therefore not seek to relieve and remove it. The future Sir Humphrey Davy doubtless changed his opinion very quickly and permanently, under the strong personal application of the argument implied in the story referred to by the Quarterly Review, in the opening paragraph of the article we have cited. "Sir Humphrey Davy, when a boy, with the defiant constancy of youth which had as yet suffered nothing, held the opinion that pain was no evil. He was refuted by a crab, who [which?] bit his toe when he was bathing, and made him roar loud enough to be heard half a mile off. If he had maintained, instead, that pain was a good, his doctrine would have been unimpeachable. Unless the whole constitution of the world were altered, our very
existence depends upon our sensibility to suffering." As the reviewer says, "without the warning voice of pain, the crab might have eaten off the future Sir Humphrey's foot while he was swimming, without his entertaining the slightest suspicion of the ravages which were going on." So he adds, "had he survived the injuries from the crab," he would have been destroyed by continuing the inhalation of carburetted hydrogen, after it had almost caused his death, and yet saved him by inducing painful sensations.

The preservation of infancy is alluded to by the reviewer, as often entirely due to physical pain. Of course, in the absence of parents or nurses, thousands of children would perish from mere lack of that experience which suffering gives them by degrees.

Another phase in the "beneficent distribution of pain" is the undoubted total absence of it in what is termed the last struggle. Dissolution is painless; the agony has been distributed over other hours of existence; the sunset of life, like those of many a stormy natural day, are placid, most generally. The opinion, however, is still commonly entertained that there must be pain whilst the spirit is leaving the body, because of the occurrence of convulsive movements remarked at such times. The suffering is only apparent, not real. What a consolation to friends is this, and what a source of comfort to all poor mortals, who know that they must pass through the gate of death. Upon this point the reviewer says: "In fact, though disease is often painful, the act of dying is not. Bodily suffering would be no protection then, and, consistently with the invariable method of Providence, we are spared a useless anguish."

Anaesthetic agents, which have been so mercifully revealed to us, and whose discovery is certainly the greatest boon to humanity since that of vaccination, have been questioned in regard to one of their applications, by eminent medical men. We refer to their employment in obstetric cases. There are those who contend that the pains of labor, being, in fact, natural and healthy demonstrations, ought not to be interfered with; that they have an important part to play—and that they have such uses as ought not, even partially, to be lost to the parturient woman. Whilst many decry this view as foolish and unfounded, we confess to seeing much truth in it. There can be no dispute as to the benefit of ether and chloroform in surgical operations, or their application for the relief of any pathological condition; but childbirth is not a pathological state, but wholly a natural act. It may well be questioned how far we ought to interfere with what are termed its "pains." Of course, if the woman in labor begins to sink under their mere endurance, or any morbid element mingles with the process, our authority is at once established, to inter-
pose—the state has become pathological. But often, anaesthetics are used in short and easy labors, when the patient would have done as well, or even better, without them. We can refer to several instances in which labor has been undoubtedly retarded by the action of ether on the uterine efforts; and within a few days, a case has been mentioned to us by a highly intelligent and observing medical friend, where this was distinctly proved. The labor was a first one, and the birth was delayed a long time without any apparent reason. The suspension of the inhalation of ether was advised by the gentlemen referred to, and on complying with the suggestion, the uterus immediately resumed its efforts, which safely and speedily resulted in the expulsion of the child.

This aspect of the use of pain deserves closer attention, and it may be well to sift obstetric cases more thoroughly; using anaesthesia, only, or chiefly, in such instances as really demand it.

We have already extended our remarks beyond the limits we had assigned to them. Pain, as an evil, has of late been placed more than could ever have been hoped for, under the dominion of scientific medicine. As a good, it still is vouchsafed to us in the shape of a watchful guardian; and it must be ever present on the earth in many forms and with every shade of intensity. It is only in the vision of the Revelation that we read, "and there shall be no more death, neither sorrow, nor crying, neither shall there be any more pain."

On the Analysis and Immediate Principles of Human Excrements in Disease. By Dr. Marcet, F. R. S.

The object of this communication is—1. To describe an easy and very practical method of analysis to be applied to feces in the diseased condition. 2. To show that the method of analysis in question is essentially anatomical or mechanical, and as free as possible from chemical reactions. 3. To show that in three instances of disease where the bile was prevented from flowing into the duodenum, the feces yielded a quantity of crystallizable fatty acids, (margaric and stearic acids,) which immediate principles are known to be absent from healthy evacuations, except in certain cases depending on a peculiar diet. A few words may suffice for describing the analysis. The evacuations are exhausted with boiling alcohol, and the solution strained through muslin. On cooling, a precipitate or deposite occurs in the fluid, which is separated from the mother liquor by filtration. This deposite, after it has been washed with boiling alcohol, is found in healthy cases to consist of stearate and margarate, or soaps of lime and magnesia, with or without earthy phosphates—these compounds existing in the evacuations under examination in the form of im-
mediate principles. The alcoholic washings or solution obtained from the deposit yielded, in case of retention of bile; considerable quantities of free margaric and stearic acids. The clear original alcoholic extract being mixed with milk of lime, containing a considerable excess of water, is converted into muddy fluid, when a distinct precipitate will be noticed. After having collected this precipitate in a filter, washed it with water, and dried it on the water-bath, it is to be exhausted with a mixture of alcohol and ether. The clear extract thus obtained deposits on standing, in all healthy cases, impure crystals of excretine; a substance easily purified and prepared, perfectly colorless, by repeated crystallizations in alcohol and filtration through animal charcoal. The author had previously described the characters of excretine in communications to the Royal Society, published in the "Philosophical Transactions" for 1856 and 1857. Diseased excrements do not always contain excretine, as it was absent in those cases referred to in the present communication, where it was searched for. The lime precipitate exhausted with alcohol and ether, is now to be mixed with water, and decomposed by means of hydrochloric acid; chloride of calcium is formed, and an insoluble substance remains floating in the liquid; this he has found very abundant in some diseased cases and also in a few exceptional instances after a vegetable diet; it consisted of margaric and stearic acids mixed with a considerable portion of oleic acid. Finally, by concentrating the filtrate from the lime precipitate on the water-bath, and decomposing the residue with sulphuric acid, certain organic acids soluble in water are obtained, possessed of a very pungent odor, and whose properties have not yet been investigated; the castings of carnivorous animals yield in this stage of the analysis butyric acid, a substance not present in healthy human evacuations. It must be remembered that the animal body contains a number of organic acids forming known soluble salts with lime, and consequently the examination of the filtrate from the lime precipitate in diseased cases is not to be neglected. The above description, although necessarily most incomplete, gives a rough sketch of the processes recommended for the analysis of feces; it has been put to the test for the examination of a very great number of human evacuations, and found to yield constant results in health; it is, therefore, perfectly adapted for the investigation of the composition of diseased excrements. Dr. Marcet now wishes to draw the attention to the circumstance that chemical reagents have been used as seldom as possible in these analyses, in order to avoid the decomposition of immediate principles or of compounds, such as they exist in the body. Alcohol and ether, with and without the application of heat, are the principal means employed. It is not impossible, however, to determine immediate principles by chemical analysis; and a
The remarkable instance of the aid obtained from chemistry in these investigations, is the fact, that by the analysis of the mass deposited in the original alcoholic extract of feces on cooling, he has been able to ascertain that it contains phosphoric acid, fatty acids, lime and magnesia, exactly in such proportions as are required for the substances to combine in the form of earthy phosphates and earthy soaps. These compounds had, therefore, previously existed in the intestines in the form of immediate principles. Dr. Marcet then gives the detail of three cases in which he carried out his examinations.—[Proceedings of the Royal Med. and Chir. Society, and Runking's Abstract.

Statistics of Tracheotomy.

The statistics of the operations of tracheotomy performed during a number of years at the Hôpital des Enfants at Paris, where the effects can be observed upon an extended scale, must always be interesting and valuable. In former years we have frequently entered into practical details on the subject. We now quote from the Journal of Practical Medicine and Surgery the following statistics relative to the operations of tracheotomy performed during the eight years just elapsed.

The following is the list of these operations from 1850 through 1857, with the number of cures obtained:

<table>
<thead>
<tr>
<th>Year</th>
<th>Operations</th>
<th>Cures</th>
</tr>
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<tbody>
<tr>
<td>1850</td>
<td>20</td>
<td>6</td>
</tr>
<tr>
<td>1851</td>
<td>31</td>
<td>12</td>
</tr>
<tr>
<td>1852</td>
<td>59</td>
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<tr>
<td>1853</td>
<td>61</td>
<td>7</td>
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<tr>
<td>1854</td>
<td>45</td>
<td>11</td>
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<tr>
<td>1855</td>
<td>48</td>
<td>10</td>
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<tr>
<td>1856</td>
<td>55</td>
<td>14</td>
</tr>
<tr>
<td>1857</td>
<td>71</td>
<td>15</td>
</tr>
</tbody>
</table>

Total, 390 86

It will be seen by the above table, that the proportion of recoveries, although very unequal in the several years, presents a very similar general average; that is, from 1 in 4 to 1 in 5 of the whole number operated on yearly. It should be mentioned that the majority of the children operated on were in the last stage of croup, and were consequently in imminent danger of death.

M. Guersant, in whose wards this estimate was prepared, gives the following summary of the indications for and against tracheotomy, based upon the age of the children, the existing complications, &c.

Age is an important element to be considered. Amongst the
cases which compose the above table, there is one of a child 18 months old, who died with convulsions during tracheotomy. M. Chaillon, the author of the article cited by us from the *Journal of Practical Medicine and Surgery*, states that he saw, on the 7th of January last, a little girl of two and a half years die during the operation, notwithstanding the well-known skill of the surgeon. He had also seen a similar case in private practice—the patient being also a girl less than three years old.

Nevertheless, whilst the peculiar difficulties of tracheotomy in subjects under the age of two years are admitted—difficulties ascribable to the restricted relations and volume of the parts at that age; to the dangers of a minute, long and delicate dissection; and especially to the small size and mobility of the trachea, which often allow of the insertion of the tube only with extreme difficulty—M. Guersant does not consider the youth of the patient an absolute contra-indication to tracheotomy.

The same is true as regards pneumonia, when it complicates pseudo-membranous croup. For a long time, says M. Chaillon, the existence of this complication was thought sufficient wholly to contra-indicate tracheotomy. At present, M. Guersant adopts the opposite opinion; and he has become convinced that, in establishing respiration by an artificial track, he has favored the resolution of the pneumonia. He admits but one decided contra-indication to opening the trachea in croup—and that is, diphtheritic infection, or general diphtheritis. When a child whose vocal chords have been invaded by false membranes, exhibits at the same time similar morbid products in the nose, the ears, or upon the skin; when there are attacks of epistaxis and every sign of extreme debility—tracheotomy will be useless; the child will invariably die.

M. Guersant does not, moreover, consider the extremest degree of asphyxia an insurmountable obstacle to the success of the operation, provided the condition is permanent, and has continued for at least an hour, with a persistent character.

Slow and continued asphyxia is, indeed, the very state which is the chief indication for tracheotomy, according to M. Guersant. It is, then, the only thing to be done—the restablishment of respiration being that alone which can keep the child alive.

There is a sort of asphyxia which does not so imperatively call for the operation—viz., the intermittent form. M. Guersant has seen children making violent efforts to breathe and seemingly about to die instantly; false membrane having been discharged, the nature of the disease was certain. Notwithstanding, the friends having opposed the operation deemed necessary by the surgeon, the usual means were employed—such as emetics, calomel, alum, and chlorate of potash—and the patients have recovered. But with the exception of these rare instances and of the far
more common cases of general diphtheritis, M. Guérissant thinks that as a general principle, tracheotomy is distinctly indicated whenever there is continued and increasing embarrassment of the respiration.—[Gazette des Hôpitaux, and Boston Med. and Surg. Journal.

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Watery Discharge from the Uterus During Pregnancy.

Dr. Harvey made the following remarks on this affection at a meeting of the Cork Med. and Surg. Soc., Dec. 9, 1857: "In some books on Midwifery, watery discharge from the uterus is noticed as amongst the diseases to which pregnant women are liable. A clear, limpid, colourless fluid, oozing in quantity from a few ounces to pints daily, flows away, sometimes stopping for a short time, and recommencing; and in the majority of cases it continues nearly, or full to the time of delivery. The abdomen does not appear palpably reduced by these discharges, and a living child is commonly born at or near the full time. In the greater number of instances, also, there is evidence of the usual quantity of liquor amnii being present on the supervision of labor. Dr. Alexander's case, given in the third volume of the Medical Commentaries, shows this very prominently. In a case by Dr. Petel, also, in the Gazette de Hôpitaux of July, 1838, the liquor amnii is specially mentioned as normal in quantity.

"What is the source of this fluid, discharged as it is, to the amount of hundreds of pints in the course of a few months? The supposition of its coming from the cervical glands of the uterus, or from the vagina, both of which have been assumed as sources of it by different authorities, appeared altogether unlike-ly from the nature of the fluid, its quantity, and its mode of coming away in gushes of considerable quantity at a time. That it could come from the space between the decidua and chorion, or between the chorion and amnion, we have no pathological facts, so far as I am aware, to warrant our supposing such a source for the flow; whilst in the natural condition of parts such spaces do not exist; as, at a period of pregnancy before these discharges commonly show themselves (say the sixth month, or thereabouts), the cavity between the chorion and amnion has disappeared; and we know that the chorion and decidua are in contact throughout.

"Under these circumstances we seem driven to the conclusion that the amnion must be the source of this flow; that there may be occasional solution of continuity in this membrane, admitting of discharges from time to time, which either close again, or admit by the mechanical relations of the bag to the neighboring parts of the amnion, refilling to a certain extent by
a fresh secretion of its particular fluid. In confirmation of this view may be mentioned cases recorded by Dr. Denman, Professor Burnis, of Glasgow, and Dr. Pentland, of Dublin, in which the amnion is said to have given way from fright or other sudden shock, the water being discharged without labour coming on. All these considerations tend rather to the view that the escaping fluid may be liquor amnii than to any other which has been propounded. In the case which I am going to relate the symptoms were similar to those which were present in the cases of watery discharge which I have been noticing, and in this instance, as will be seen, the flow was undoubtedly amniotic.

"Mrs.——, mother of several children, was for more than a year, the subject of heavy sanguineous discharges, which were so little influenced by the treatment adopted that the existence of polypus was thought possible. An examination revealed considerable congestion of the os and cervix uteri, with superficial ulceration, which gave way to treatment generally and locally applied. During last summer her health was considerably improved, but occasionally menorrhagic attacks, which latterly observed more or less closely the monthly periods, showed themselves. Matters were going on thus when she suffered a considerable shock by her eldest boy meeting with a severe accident, in which his arm was fractured. On that day, for the first time (six weeks before delivery), she had a sudden gush of clear watery fluid from the vagina, and since that time to the date of these notes (5th November), she was scarcely free from it; it would diminish or nearly stop for a few days at a time, to come on again in gushes, and in considerable quantity. The quantity escaping in one of these was seldom less, and generally more, than half a pint; and on the late occasion, when the flow was accompanied by a heavy sanguineous discharge also, she thinks the combined amount was fully a quart. It came on in the horizontal position as well as in the erect, and apparently without any cause. The size of the abdomen did not appear much affected by these at any time.

"The occurrence of the watery discharge suggesting the probability of pregnancy, notwithstanding the menstrual changes which had been going on with some regularity, and that, if pregnancy did exist, the ovum might have suffered hydatid degeneration, I proposed an examination for the purpose of ascertaining the point. I found an abdominal tumour occupying the hypogastrium to above the umbilicus, and on laying my hands over its surface, it gave a good example of the value of a diagnostic indication lately suggested by Dr. Oldham; it afforded distinct evidence of its being uterine by gradually and regularly hardening under my hand. The movements of the child were also felt, and foetal pulsation, distinctly heard by the stethoscope, put an end to all doubts.
"I told the lady that she had passed some six or near seven months of her pregnancy without being aware of it, and that her labor would probably come on prematurely, all of which she entirely disbelieved, and I could not induce her to make the necessary preparations. Two days after, I was called to her—the first stage of labour having set in with unusual distress and irritation; the pains peculiarly sharp and unbearable; the os uteri was hard and unyielding, and the breech, presenting in the second position, was felt in close contact. I immediately put her on antimonial solution, notwithstanding which the os uteri took over three hours to relax. After a first stage of about four and a half hours, and a second of less than half an hour, a male child, of scarcely seven months' growth, was born. The presenting hip and buttock were perfectly black, evidently from the direct pressure to which they had been subjected, in consequence of the loss of the liquor amnii. None whatever escaped with the child, and the sanguineous discharge was also unusually scanty. I do not think I ever witnessed so dry a labour.—[Dublin Quart. Journ. Med. Sci., and Amer. Jour. Med. Science.

New Remedies in Yellow Fever—Chlorine and Veratrum Viride.
By E. D. Fenner, M. D.

Up to the present time, the treatment of yellow fever may be said to have been almost entirely empirical or based on experience alone; but empiricism may work on till doomsday and in the hands of skillful practitioners, achieve great success, yet fail to satisfy the demands of the inquiring and philosophic mind. Science alone can do this; by which I mean a knowledge of the morbid cause and an explanation of its modus operandi in the production of all the phenomena of the disease, as well when it terminates in recovery as in death. In ignorance of these fundamental desiderata, the practice must necessarily be empirical—like one groping in the dark, who might stumble upon a jewel, but at the same time be liable to fall into a pit—a thrust with a dangerous weapon by the looker-on of a personal combat, equally liable to strike friend and foe. By observation, much valuable knowledge has doubtless been attained, and likewise, great skill in practice has been acquired from experience; but all this is still unsatisfactory and incapable of being taught or transmitted to those who are to come after us.

Various plans of treatment and all sorts of remedies have been resorted to in yellow fever, but neither plan nor remedy has ever yet attained universal approbation and acceptance. Cases have been known to recover under every plan, and others
to die in spite of every known remedy; but the most important fact of all is, that persons may recover from the disease without any treatment at all—a problem full of instruction, but as yet, remaining unsolved.

Of all the remedies for this disease that have gained notoriety, the following four are the only ones that have been supposed to exert a special action on the morbific cause or *materies morbi*, viz: *mercury, quinine, salines and the tincture of the muriate of iron*. The virtues of all the rest, such as emetics, cathartics, diaphoretics, diuretics, blood-letting, counter-irritants, etc., are attributable to their generally known therapeutic action.

Of the four remedies just named, not a single one has succeeded in commanding general confidence in the powers claimed for it. Mercurial ptyalism is no longer relied on as a protection against the danger of yellow fever; the introduction of salines into the system for the purpose of counteracting the morbif changes of the blood, has been tried in vain; the once vaunted powers of quinine are fading away, and the tincture of iron has fallen into probably unmerited neglect, after a brief but brilliant career.

A correct theory is absolutely necessary to scientific and successful practice; and the physician, if there be one, who has *no theory*, is a mere empiric. In a case of yellow fever, we see a *contest between the inherent conservative powers of the body and a lethific agent*; be it a poison, a ferment, animalcule or vegetable cryptogam. In the course of this conflict, we may suppose that one or more of the following occurrences will happen: The morbific agent may be only capable of causing a perturbation or disease which can be overcome by the conservative powers of the system, with or without medical aid; or it may be so powerful as to defy the conservative powers as well as any known remedies, and prove *inevitably fatal*. 2. It may be neutralized in the system by remedial agents, in the way that certain poisons are disarmed by certain known antidotes. 3. It may be eliminated from the system by the emunctories, or secreting and excreting organs. 4. By the disturbance of the functions which it produces, it may cause the retention of elements in the system which have fulfilled their legitimate purposes and can no longer be retained with impunity; thus adding fuel to the destructive fire that is already raging.

The physician's theory of each individual case, based on its history and symptoms, will direct his practice towards the accomplishment of one or more of the above objects. If nature is doing all that is necessary, of course he will not interfere; but when she appears to be unequal to the task, it becomes his duty to render such assistance as the indications of the case appear so clearly to point out.
Here we might pause and inquire, what, that is really beneficial, has as yet been discovered? and wherein, lie the principal defects of our practice in this disease? The answer to these questions would require a critical review of all the various plans and remedies that have been resorted to in the treatment of yellow fever; a task which we have neither time nor space to perform at present.

The foregoing remarks have been thought necessary as a prelude to the introduction of two new remedies in the treatment of yellow fever, which, so far as a limited experience can testify, promise to fulfil in a most satisfactory manner, three of the most important indications, viz: 1. The controlling of excessive febrile excitement; 2. Maintaining the free and continued action of the great eliminating organs, the skin, liver and kidneys: 3. And consequent thereon, the preservation of the integrity of the blood and tissues. These remedies are chlorine, and Norwood's tincture of Veratum Viride.

I brought myself to the experiment of chlorine by reflecting on the course and nature of this fever, and the want, long felt, of something that is capable of neutralizing the action of the morbidic cause, or of assisting the efforts of nature to eliminate it from the system. Secondly, by recollecting the happy effects of the muriated tincture of iron which I witnessed in the epidemics of 1854 and 1855. Thirdly, by the flattering testimony in favor of chlorine in malignant scarlet fever, to be found in Watson's Lectures; and lastly, by the therapeutic action of chlorine and the chlorate of potass, as recorded in Pereira's great work, and other late writers. I resolved on using the chlorine mixture mentioned in Watson's Lectures, p. 1002, third American edition. The plan adopted was, first to purge the patient moderately with castor oil or some other simple cathartic, and bring on free perspiration by means of the hot mustard foot bath, warm orange-leaf tea and covering with a blanket; then to give to an adult two tablespoonfuls of the chlorine mixture every two hours.

My first experiments succeeded beyond my most sanguine hopes, and every case in which it was timely applied, excepting one, recovered in a most satisfactory manner. The medicine sat well on the stomach, but occasionally caused griping, which disappeared on omitting it for five or six hours or reducing the dose to a single tablespoonful. Under its use the febrile excitement soon declined, headache disappeared, and the kidneys and liver acted freely. The dose was diminished or the interval prolonged as the fever went down. In most cases, no other medicine was given till the end of the third or critical day, when the chlorine was stopped and I gave what is called here the
Sydenham Mixture, composed of the phosphate of lime and gum arabic suspended in equal parts of orange-flower water and distilled water. The bowels were kept open by enemata, as occasion required, and the patient was allowed to drink orange-leaf tea and barley water ad libitum.

In this manner, I had treated some eight or ten cases with satisfactory success, and was applying it to all my cases, both in private practice and the Charity Hospital, when I happened to meet one of the most extensive practitioners of our city, who stopped to relate to me a very extraordinary case he had just been attending. He then asked me whether I had ever tried Veratrum Viride in yellow fever? I told him I had not, but had long intended to do so. He begged me to try it in the Hospital, as he did not like to experiment on patients in private practice, yet felt the necessity of our endeavoring to find out some more valuable remedies than any we now have. I promised him to make the experiment very soon, and we parted. On the same day, I learned through the newspapers, that Dr. White and another physician of Charleston, had met with very extraordinary success in the treatment of yellow fever with the Veratrum Viride. In the evening, I went to the Charity Hospital for the purpose of commencing my experiments with this medicine. This was on the 20th instant.

In Ward 16, (under my charge), I selected three cases, two of which had entered since my morning visit.

Case 1—Was a fine young Irish sailor, aged 16, who had arrived here from Liverpool only five days previously, and was attacked this morning; entered the Hospital at 5 P. M.; had taken a mustard foot-bath and a dose of castor oil, which had moved his bowels freely. He had headache, injected eyes, skin very hot and sweating; great thirst; pulse 120. Ordered cold applications to head, orange-leaf tea, and five drops of Norwood’s tincture V. V. every three hours.

September 21st. Found patient sound asleep and sweating freely, eyes less injected, headache much relieved, tongue moist; less thirst; pulse 100. Continued the V. V. every four hours.

5 P. M. Very quiet, but pulse up to 112.

September 22d. Cool, quiet and moist, pulse 88. Found the urine acid, but not coagulable. Continue treatment; move bowels by enema.

September 23d. Cool and quiet; rested well and apparently convalescent; pulse 70. Stopped the V. V. and allowed chicken water. On testing the urine, found it albuminous.

On the 25th, the patient had slight exacerbation of fever in the evening and took neutral mixture, tablespoonful once an hour. Urine more albuminous.

September 26th. Patient does not improve; has exacerb-
tions in the evening; bowels open, sweats moderately; urine now highly albuminous and bilious; threatened with hæmorrhage from gums. Put him on my chlorine mixture, tablespoonful every four hours.

27th. Has slight hæmorrhage; is improving.

28th. Rested well; is cool, quiet and hungry. Now fairly convalescent.

Case 2. Young Irishman, aged 19, was attacked on the morning of the 19th September, and went immediately to the hospital. I saw him at my morning visit and prescribed hot mustard foot-bath, and a dose of castor oil. After the bowels are well purged, to take two tablespoonfuls of the chlorine mixture every two hours. On the morning of the 20th he was doing well, and ordered to continue the mixture.

At my evening visit I resolved to put him on the V. V., and found his condition as follows: Considerable fever; skin hot and rather dry; pulse 100; tongue white, with red edges, and moist; considerable thirst; pain in the head and back; bowels rather loose and uneasy. Ordered five drops of the V. V. every three hours and the chlorine mixture immediately.

September 21st. Much better; face and eyes less injected; skin cooler and sweating freely; pulse 72; headache relieved; has some pain in the back; thinks the chlorine gripes. Ordered to prolong the interval of the V. V., and to take less of the chlorine. His urine is acid but not coagulable.

September 22d. Completely relieved; clear of fever and pain; pulse down to 72; is quite hungry; urine acid but not yet coagulable. He continued to improve steadily, and was discharged at his own request on the morning of the 26th. His urine was then beginning to show albumen.

Case 3. Was a German aged about 30. Entered hospital this evening, September 20th, in the second stage of the disease, (third day), having been vomiting and purging from the commencement of the attack. He was very weak; eyes much injected; headache; sweating; tongue moist; still vomits; pulse 100 and feeble. Wishing to see the effects of the V. V. in a desperate case, I prescribed five drops every three hours; sinapism to epigast.

September 21st. Pulse 80; skin cool, moist and of deep red color; had no pain; attempts to vomit; very thirsty; urine abundant, acid and highly coagulable. At noon his pulse was down to 54: has hiccup; stop the V. V. 5, P. M., hiccup checked. Contrary to orders he got out of bed and the hiccup returned. He lingered till the 23d and died. He passed urine to the last day, and it was highly albuminous.

In reflecting on these first cases, it appeared to me that case one, had such a lingering convalescence from the want of some-
thing besides the veratrum. This medicine had displayed its wonderful power of subduing febrile excitement, but there was something wanted to act upon the blood, liver and kidneys; that the rapid convalescence of case two, was probably due in some measure to the good effects of the chlorine mixture he took for about thirty hours; and that case three, could hardly be expected to recover after removal to a considerable distance, in the second stage of the disease.

From that time I have continued to use these two remedies in nearly all cases that have come to my charge in the first stage, and at the hospital in all stages while there was febrile excitement. I directed the remedies to be taken alternately, at intervals of two hours, i.e., first the veratrum, and two hours afterwards the chlorine; and so on till the febrile excitement is sufficiently reduced, the pulse of the adult brought down to 70 beats in the minute, when the former is stopped, but the latter continued in small doses. Previous to giving these medicines, the bowels should be well evacuated, but not severely purged. Subsequently, they may be kept sufficiently open by enemata. Sweating should be promoted by mustard foot baths, warm teas and covering with one or two blankets. Yellow fever patients are frequently sweated too severely, but I have hardly ever known one to do well without maintaining a good perspiration for three days.

It is proper that I should mention some of the troubles that may arise in the use of these remedies, for there is no medicine that possesses great remedial powers without being likewise capable of doing injury if improperly administered.

The Veratrum viride, as is well known, is a very powerful medicine and liable, when taken in excess, to produce great prostration of the vital powers. It should therefore be very cautiously given, and its action watched with the utmost care. There should be a considerable interval between the doses, so as to allow time for the medicine to display its effects. It will surely reduce the frequency of the pulse and febrile excitement generally; but if carried too far, it produces alarming prostration, great restlessness and a peculiar wild delirium, all of which will pass off in a few hours and may be relieved by a little paregoric and brandy. I have never heard of its producing fatal effects, although it has recently come into very general use in all parts of the country as a remedy in pneumonia and typhoid fever. The dose I have directed is of course intended for adults, and must be varied according to the age of the patient. It should be stopped gradually after the pulse falls to 72; and the remainder of the cure left to the chlorine mixture, with such adjuvants as the particular case may require.

In respect to the use of the chlorine mixture, I have as yet
Antagonism of Opium and Quinia. By M. GUBLER.
[Translated by J. P. BARROT, M. D.]

M. Gubler read a paper before the Société Médicale des Hôpitaux de Paris, on the antagonism between Opium and Sulphate of Quinia, of which the following is a synopsis condensed from the summary published in "L'Union Médicale," of May 20, 1850. Being unwell himself, M. Gubler took sulph. quinia in 0.50 centigrammes doses only and was struck with the fact that they produced humming in the left ear only, although his hearing is equally good on both sides. This peculiar effect occurred three days in succession. As at that time he suffered from a head-ache which was most violent on the right side—on which side it is always greatest in M. G., he was led to suppose that the evident congestion on the right side, neutralized the effect of the quinia, which effect M. G. considered due to the privation of the brain of blood, (anémier l'encéphale décongestionner le cerveau) the removal of congestion of the brain. M. G. having recovered his health, resumed his attendance in the wards of the Hospital. He there saw a case of acute articular rheumatism in which large doses of sulph. quinia and opium had been administered for several days without success. M. G. continued the dose of sulph. quinia—i.e., 1 gramme 50 centigrammes with 0.25 centigrammes extract of opium. Finding that the particu
lar therapeutical effects of both remedies were entirely wanting, he increased the dose of sulph. quinia and diminished that of the opiate, without, however, any better success.

Lastly, he left out the opium altogether, and gave 1 gramme 50 centigrammes of sulph. quinia alone, which produced in a marked manner, the peculiar remedial effects of that drug. And from that time the rheumatism diminished rapidly and markedly. This and other subsequent cases of the same nature, confirmed him in his belief that opium was antagonistical to sulph. quinia, or, so to speak, its antidote.

M. Gubler enunciates his particular views of the modus operandi of opium and sulph. quinia. According to him, opium produces congestion and hyperæmia, whilst its antagonist, sulph. quinia, produces anaæmia and dissipated congestion—(anémie et décongestionne).

The following are the conclusions of M. Gubler: 1. Inversely to opium, which exalts organic action, producing sanguineous congestion and caloricity, sulph. of quinine acts on the nervous system by condensing the forces there, in such a way as to arrest organic action, the source of waste, and to diminish as much as possible the afflux of blood in inflamed parts. (Sic).

2. This modus operandi once admitted, we can readily understand the innocuousness of sulphate of quinia in the cerebral symptoms of rheumatism, which symptoms recent experiments have already tended to show were not due to its use.

3. Moreover, the use of sulph. quinia is indicated in all the inflammatory forms of cerebral rheumatism; opium being serviceable in the nervous forms only, and in these only when not complicated by fever.

4. Sulph. of quinine and opium, being antagonistic should not be given together.

5. These two remedies may be used as antidotes to one another.

M. Guérard thought that sulph. Quinia did "decongestionner le cerveau," and stated in support of his opinion, that its use produced imminent syncope. Some years previously, while suffering from intermittent fever, he had taken large quantities of sulph of quinia, sometimes for a month at a time, in a single dose daily. As long as he remained in the recumbent position he experienced no unpleasant sensation, but when sitting, syncope was imminent. He had seen a second similar case.

With respect to the antagonism of opium to sulph. of quinia, he was the more ready to believe it, inasmuch as in his thèse de concours for the Chair of Therapeutics, he had shown that the effects of medicines when isolated might be neutralized by combination; and had mentioned that M. Caventou had given strychnia combined with morphia, each in large doses, and that the effects of the combination had been greatly diminished.
Substances which are poisonous by themselves, cease to be so when united.

Note by the Translator.—The conclusions of M. Gubler, on the antagonism of opium and sulph. of quinia, although endorsed in a measure by M. Guerard, fail to convince us. Further trials on a more extended scale, would show the correctness or incorrectness of his views. Should his opinions turn out to be correct, quite a revolution would take place in the administration of sulph. of quinine in this city, where either from fashion or conviction, it is most generally given in combination with opium. The Haustus Quinix of the Charity Hospital, which has done so much service, would then have seen her last day.


The Subcutaneous Operation on Varicose Veins. By Mr. Henry Lee, Surgeon to King's College Hospital.

When blood is effused into the cellular tissue in the living body, it undergoes changes varying in different cases. Sometimes it is simply absorbed, leaving the surrounding parts as they were before; sometimes the fibrin becomes separated from the more fluid parts of the blood, and remains after these are removed. Again, the effused blood may remain contained in a kind of sac, of a dark grumous color, for weeks or months; or finally, it may undergo a process analogous to that of suppuration, and be discharged, more or less deprived of its coloring matter, as from an abscess. Blood that remains for any lengthened period stagnant in veins undergoes somewhat similar changes. It may be deprived of its serum, and its more solid parts may remain, obstructing the veins for almost an unlimited period, or it may become dark and grumous, undergoing a kind of slow decomposition; or again, in the fibrin previously separated from the other constituents of the blood, cell development may take place, and an abscess will form in the vein.

In the various operations which have from time to time been practised for the obliteration of varicose veins, the effused and stagnant blood has occasionally either undergone a kind of decomposition, or has become involved in an abscess; and when the products of these changes have become mixed with the blood, it is now well known with what fatal certainty their presence is manifested. The occasional, although rare occurrence of the symptoms, now recognized as those of blood-poisoning, after operations on the veins, had led surgeons from time to time to seek for modes of operating which should be free from the dangers previously experienced.

In 1815, Sir Benj. Brodie published a paper in the "Medico-Chirurgical Transactions," in which he advocated the subcutaneous division of varicose veins. In that paper, the advantages of
the subcutaneous mode of operating are clearly pointed out. (A
description here followed of Sir B. Brodie's mode of performing
the operation.) In this mode of operating, no adequate provi-
sion is made against hemorrhage from the divided vessel on the
one hand, nor against the absorption through the open mouth of
the vein of the products of the effused or stagnant blood on the
other. If a vein be simply divided, no one can tell exactly how
much blood will be effused; and if effused in quantity, the
changes above mentioned will occasionally take place. These
changes may occur either in the blood outside the vein, or in
the stagnant blood still within the vessel, or the action may be
communicated from one of these to the other. The product of
these changes may be localized by the unassisted powers of
nature; the vein may be closed, so that no absorption through
its canal can take place. In like manner, an artery, when divid-
ed, may spontaneously cease to bleed; but nevertheless surgeons
are not fond of trusting to these unassisted powers of nature.
In one case, as in the other, that which may take place from
natural causes may be with tolerable certainty effected by arti-
ficial means. The vein, like the artery, may be safely and
efficiently closed. If this be carefully done before an enlarged
vein is divided, the effusion of blood is in the first instance pre-
vented, and there is proportionately less risk of any of the mor-
bid changes which have been referred to; and secondly, even
should such changes take place, the products of such changes
are prevented from entering the circulation through the wounded
vein.

Such were the considerations which induced Mr. Lee in the
year 1853 to try a new mode of performing the operation of
subcutaneous division of varicose veins. The plan then adopted
was to place a needle under the vein both above and below the
part to be divided. A ligature was then placed over the needle
in each situation, and allowed to remain for a couple of days.
At the expiration of this time the blood was usually coagulated
in the vein, which would be felt as a round soft cord on either
side of and between the needles. The vein was now divided by
subcutaneous incision, and two days later the needles were re-
moved. After three or four more days the parts usually had
the appearance of having united by the first intention, and the
patient was allowed to go about his usual occupation. In his
first attempts to perform this operation, he could not say that
his success had been quite such as he could have wished, and
indeed expected. One case in particular had some severe local
and constitutional symptoms; and he had reason to believe that
an abscess had formed in the vein, where it had been traversed
by one of the needles. Reflecting subsequently on the cause of
this, he became convinced that the origin of the mischief was,
that the needle had pierced the vein instead of being made to pass fairly under it. In subsequent operations this point was attended to, and performed with due precaution, as it has now been by Mr. Erichsen, and various other surgeons, a great number of times, and it has not, so far as Mr. Lee was aware, been attended with danger. During the last twelve months a further improvement, as he conceived, had been effected in regard to this operation. The vein is divided as soon as the needles have been placed under it. The subcutaneous incision heals in about the same time as in the other operation, and the confinement of two days previous to the section of the vein is avoided. In this operation the blood which the vein contains between the two needles is allowed to flow out of the incision; and thus any tendency that there might be for stagnant or effused blood to decompose is avoided. In performing the operation in the manner now described, the blood contained in the veins between two needles escapes; the sides of the vein necessarily fall together, and are maintained in apposition. The sides of the vein compressed by the needles and ligature suffer no violence or injury. The subcutaneous incision is pretty sure to heal by first intention, and even should it not, the vein being closed above and below, no diseased secretion can find its way along its channel. Various cases were given to illustrate the different modes of producing obliteration of veins by subcutaneous division.

*British Med. Jour., and Ranking's Abstract.*

**The different effects of Gaseous Injections into the cellular tissue and into the peritoneal cavity.** By J. C. Shapard, M. D.

M. M. Laconte and Demarquay communicated a memoir to the Academy of Sciences at its meeting of the 29th of March, 1858, on the pathological, physiological, and chemical phenomena produced by the injections of air, azote, oxygen, carbonic acid, and hydrogen into the cellular tissue and into the peritoneal cavity.

From facts contained in this memoir, the authors conclude:

1. That air, azote, oxygen, carbonic acid, and hydrogen, do not produce any hurtful effect when they are introduced into the subcutaneous cellular tissue or into the peritoneal cavity.

2. That all these gases are absorbed after a longer or shorter time, and with a rapidity which varies from forty-five minutes (carbonic acid) to many weeks (azote). The rapidity of the absorption is always presented in the following manner: carbonic acid, oxygen, hydrogen, air and azote.

3. That the injection of any gas whatever into the cellular tissue or into the peritoneum, constantly determines an exhalation of the gases contained in the blood and the tissues.
4. That after the injection of the gases, mixtures are formed that are more easily absorbed than the least absorbable gas contained in the injected part. So that the absorption of this last does not commence only when it is already mixed in certain proportions with the other gases.

5. That, in general, the exhalation of the gases of the blood or of the tissues, has been more considerable in the experiments made during the digestion, than in those made during fasting, and more in the peritoneum than in the cellular tissue.

6. The rapidity of the absorption has not seemed modified by the state of fasting or digestion.

7. That of all the gases injected, hydrogen is the one which determines the most considerable exhalation of the gases of the blood when the hydrogen has already disappeared from the mixture, the animal still preserves the volume that it presented at the moment of injection, which would induce the belief of nonabsorption of hydrogen, if a chemical analysis did not explain the phenomenon.

8. The rapidity of the absorption of the gases by the blood is not always in proportion to their solubility in water (azote and hydrogen).

9. If in the injections of air into the cellular tissue and into the peritoneum there is a constant absorption of oxygen, and exhalation of carbonic acid, which in this respect, resembles the phenomenon of pulmonary respiration, the two physiological facts should, nevertheless, not be considered as identical, for in the case of the injections, the proportions between the carbonic acid exhaled and the oxygen absorbed constantly vary.

[Nashville Jour. of Med. and Surg.

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Suture of the Extensor Tendons of the Fingers, with a Case of Cure by this Treatment. By M. Mourgue.

Suture of the small tendons, like the extensors and flexors of the fingers, is a triumph of modern surgery; and the happy results which have followed its use have given it a place among legitimate operations. The case of M. Mourgue adds another instance of success to those already recorded.

Case.—A maker of wooden shoes received on the back of his left hand, on the 10th of December, a blow of a hatchet, which divided the extensor tendons of the fore and middle finger at the metacarpo-phalangian joint. The lower ends presented at the wound, but the upper were retracted tendons, allowed them to be seized by forceps and pierced by a needle armed with a waxed thread; this needle was then passed through the corresponding ends of the tendons below, and they were thus brought into contact with those above, and tied. The external wound
was also closed with sutures. The hand was extended on a wide flat splint, and the wound covered with a linen bandage spread with cerate, and compresses wet with cold water.

12th. There is considerable swelling of the wrist and great redness; it is necessary to remove the sutures from the wound. In a few days the inflammation subsided.

20th. The wound, which is open, but free from redness and inflammation, is in good condition. The edges were brought together with sticking-plaster.

The ligatures of the tendons came away on the 24th and 26th; the external wounds cicatrized at once. On the 8th of January, the splint was dispensed with.

Jan. 22d. The man has resumed his work, the fingers having gradually recovered their strength and mobility, and having complete power of extension and flexion. In a word, the suture of the extensor tendons has been attended with all the success which could be desired.—[Gazette Médicale, and Boston Med. and Sur. Journal.]

EDITORIAL AND MISCELLANEOUS.

EDITORIAL REFERENCE TO OUR ECLECTIC DEPARTMENT.

Quinine and Alum in Diphtheritis.—We have here* collected in a body, a number of articles on a most interesting and sometimes fearfully fatal form of disease. As we have seen, it most commonly prevails epidemically—though sporadic cases are referred to. Our object in thus bringing together, in the compass of a single number, various accounts of both the character and treatment of membranous sore throat, is, that our readers may have these accounts to refer to, when, in their practice, such histories may become of particular interest. We are struck with the remarkable uniformity in the character of the disease, in all the descriptions presented from various sources—and also, by the entire absence of any mention of certain modes of treatment which, in our experience, have been of the greatest practical value—which, indeed, have proved almost specific, in the latitude which bounds our practice.

Just ten years ago, (in the year 1848,) Augusta and its vicinity, together with several other sections of the State of Georgia, were afflicted sorely by the incursions of an Epidemic Diphtherite, the history of which has never been written. It is not our design to write its history now, but simply to refer to some of the peculiarities which the disease pre-

* See pp. 747-756, present number.
presented during its prevalence here at that time, and to give a summary of the treatment pursued.

The year 1848, in its meteorological character, presented nothing very unusual in this region. Late in the autumn, when intermittent fever was prevailing perhaps to a greater extent than in the earlier part of the year, we suddenly observed, among children, certain cases of this unusual form of "sore throat." Our attention was not called to the first cases until the disease had advanced so far, that remedial measures were unavailing. The fatal croup had supervened, and the two or three first cases soon died without undergoing any modification from the treatment applied. We were thus early made painfully aware of the serious nature of the affection with which we had to deal, and whenever called early, treated the cases vigorously upon such a plan, as our little personal acquaintance with the affection could devise. Notwithstanding the opportunity afforded by early attendance, the disease rapidly progressed in most of these cases, and several of them died, on the supervision of the croup.

Our description of the cases which occurred in Augusta, will not, we think, differ very widely from that found in several of the articles presented to our readers from the various journals. In a few cases the attack was preceded by premonitory symptoms, as restlessness at night, slight fever and loss of appetite, but seldom with any actual soreness of the faucae which induced the child to complain. More frequently than otherwise, the parent or physician would have the attention arrested by a peculiar, offensive odor in the breath, even before the child had evinced any symptom whatever of any ailment; when, on looking into the mouth, the tonsils and larynx would often be found covered with the white, curdy-looking deposit, peculiar to this form of disease. On closer examination, the upper part of the larynx, the nares, even as far forward as the opening of the nostrils, would be found covered with the same matter, which spread itself in the form of a membrane* over the whole surface of the mucous lining of these more external parts of the air-passages. Often, at this first examination, a croupal hoarseness could be detected, which too plainly indicated the extension of the disease into the larynx. The cases in which the affection proved most fatal were, as may be seen in most of the accounts given of it elsewhere, children under twelve years of age, and death seldom transpired here, in any other way than from the croup.

The condition of the subjacent mucous membrane was often the subject of our careful inspection. Excellent opportunities were afforded us to examine the state of both the false membrane and the mucous membrane, during the life of the patient, by those cases in
which the deposit existed in the nostril; for in them, it often extended forward to the very junction of the skin and mucous membrane, and we could compare the appearance of the three surfaces as they lay in regular order of super-position—viz., skin, next mucous membrane, and lastly, the false white deposit—the skin, even immediately bordering upon the two other membranes, seldom evinced any change, but the subjacent mucous membrane was invariably red, to nearly its entire thickness, and seemed to be the seat of a certain kind of inflammation—while the false membrane was perfectly white and seemed to have no vascular connection whatever with the mucous surface. In a few days the first layer of the deposit would be elevated and loosened by the effusion of pus under it and them—it was easily separable from the mucous membrane. In the pharynx it would be often found hanging from the posterior wall, and even from the velum, in the form of a white ragged curtain. While in a certain fatal case which we examined, the child evidently died at the moment of, and directly in consequence of, this kind of separation of the false membrane from the walls of the larynx, the shreds blocking up the rima and producing death by suffocation. The case appeared to us, to die in getting well. Doubtless, many have died in exactly this stage, of what may, in one sense, be called a natural process of recovery.

We had many cases among the adult population, but not a single fatal case over twelve years of age—indeed the nearer the child approached to infancy, the more imminent, in our mind, was the peril from the croup. From a close observation of many cases—comparing the cases of the younger children with those occurring in youths and adults, we came to the conclusion that the greater fatality among young children was not due so much, to any greater susceptibility to the disease, nor to a less power of resistance on the part of the patients of this age; for many of our most violent cases occurred in children over twelve years of age, whose constitutions were comparatively feeble, and yet they went through even the croup, and recovered. The circumstance which, in our opinion, decided the fate of the patient, for death or for recovery, was of a purely mechanical nature—a question simply of space—space to breathe. The little advantage in the calibre of larynx which the older children possessed over the younger ones, was certainly the determining accident of their recovery. The deposit on the inner surface of the larynx varied but little in its thickness: it occupied as much space, absolutely, in a large windpipe, as in the smaller ones, but then the smaller ones could not afford this space, and suffered complete, or at any rate, a fatal occlusion. We are very confident that the above is the true explanation of the marked influence which age appeared to exercise over the result of the disease.
In a recent communication to the American Medical Association,* the nature of Diphtherite became incidentally the subject of discussion, and although we cannot here, without inconveniently extending our remarks, define our belief, or present arguments in its behalf, we yet state that we regard diphtherite as a disease which is eminently under the control of the nervous system, which underlies and governs its phenomena in such a manner, that it is impossible to deny its recognition in all our deliberations upon the nature of this affection. We do not deny the ground which many, doubtless, will take, that the disease is essentially, a peculiar vitiation of the blood, as is clearly manifested in its observed phenomena; but from our own observation, which has been ample, this blood affection, or toxæmia, specially affects the pharyngeal plexus of nerves, aberrating the influence which they exercise over the circulation and secretions of the pharynx, larynx and trachea, and metamorphosing their normal mucous exhalation into an effusion which forms the material of the false membrane of diphtherite.

In the earlier part of our epidemic, the disease was seldom marked by fever, and only local remedies and such as would be rationally suggested by the special symptoms presented, were applied; but later, a few cases were accompanied with decided fever. This fever was intermittent, and was found to aggravate the local symptoms very decidedly. Along with the local treatment previously applied, quinine was freely administered to those patients, in order to control the fever, and to our surprise, not only was the fever arrested, but the extension and progress of the membranous deposit was promptly arrested with the breaking up of the fever. From this marked influence of quinine upon the disease, we were induced to apply it in every case, whether fever presented or not; our mode of giving it was the following:—From 5 to 15 grains of quinine, according to the age of the child, was given in divided doses, during the earlier part of each day, for several days; and no less in the apyrexic than in the few pyrexic cases, did the quinine appear completely to control the progress of the affection. Seldom, after the free use of quinine, in the earlier part of the attack, did we ever find the disease extending into the larynx and producing the croup. In addition to the quinine, we frequently advised, in the beginning, a mild cathartic, containing from 5 to 8 grains of calomel, but if called later to the cases, this was omitted.

The local remedies applied here were numerous—nitrate of silver, both in weak and strong solution, was freely used by many: our own experience with it was not such as to induce us to recommend it. Dr.

L. A. Dugas has the record of many cases which illustrate the value of strong hydrochloric acid, locally applied, in our epidemic. Pulverized alum (sulphas aluminae) was the local application used by Dr. J. A. Eve, and by several others of our practitioners, with much success. This last was the only local remedy applied by us. The method of using the remedy, was the following:—The alum was first ground in a mortar to an impalpable powder—occasionally it was mixed with a small proportion of sugar. This was blown against the posterior wall of the pharynx five or six times a day, through a reed or glass tube. The most advantageous mode of applying it, was to press the end of the tube upon the mass of pulverized alum, so as to engage a considerable quantity of the powder—have the child properly held by an assistant, and then with a spoon or speculum, press down the tongue, and directing the tube rather downwards, blow the powder strongly against the posterior wall of the pharynx. If the tube were directed upwardly, the alum was liable to get into the posterior nares and give the child much pain, and cause it to resist the subsequent applications.

Time nor space does not allow us at present to dwell upon the advantageous results of the above treatment of Diphtherite, nor upon the peculiarities of the disease as it presented itself in Augusta.

In perusing the many accounts of epidemics, in various parts of the world, which have recently appeared in journals, we have, with much interest, sought for the results obtained from the use of quinine, applied in the manner we have herein hastily described; but we have found quinine but rarely mentioned at all, and only in one of those accounts but incidentally, and not much importance attached to the results of the treatment. Having experienced such beneficial results from the treatment, we are now induced to record our views, hoping that it may be found valuable to those of our readers at least, who may have to contend with an epidemic of this insidious but terrific affection in a Southern, or a malarial region.


Essay on the Modus Operandi of Medicines. By the same author.

In a former notice, we called attention to the great value of this distinguished writer's contributions to the medical literature of our country. No less now, are we impressed with Dr. Payne's commendable industry, indefatigable labor, and also, with the value of their results, than when we reviewed, a few months since, "The Institutes of Medicine," from his distinguished and prolific pen. Leaving out of sight, that difference
of sentiment and belief, which must necessarily exist among medical
men, of the present age, on such long contested questions as Humoral-
ism and Vitalism, no one can read the works of Dr. Payne, without
conceding to him, the opinion that, in him, the one has met its most
unyielding and able opponent, and the other, a most ardent, learned and
powerful advocate.

His volumes all evince an amount of erudition and thorough acquaint-
ance with the history of medical science, which render his works valua-
table, together with their other points of interest, as a rich repertory of
medical facts and opinions, collected with much judgment and discussed
with great acumen and fairness. But these are far from being the most
prominent recommendations of the volumes before us. In an age when
Humoralism has become ultra, and the influence of the nervous system
is somewhat overshadowed and obscured by modern chemical doc-
trines—which are doubtless, in great part, true in themselves, Dr. Payne’s
earnest advocacy of Vitalism, which we are free to admit, is itself ultra,
proved a valuable defence to the true and more conservative doctrines of
medicine. His urgent appeals for this Vitalism and strong arguments
against Humoralism, catch the ear and arrest the attention of the pro-
cession: and it has begun to be admitted, that though Humoralism may
be true, as the majority has heretofore firmly believed, yet the nervous
system and its influence upon the animal economy, may also have at least
a modicum of truth.

In the volumes before us, the author’s considerations are embodied
under the following heads, to each of which it will be seen he has devo-
ted much thought and a goodly number of pages:—1st. “The Vital
ages; 3rd. “The Humoral Pathology,” 332 pages—which completes the
contents of the first volume. During those three extended essays, he
applies observation, research and able reasoning to each department of
his subjects, and examines them not only as they exist now, but as they
are found recorded from the earliest history of medicine to the time at
which the author’s commentaries were written, 1840.

In volume 2, we have 78 pages devoted to “Animal Heat,” 44 pages
on the “Philosophy of Digestion,” with an Appendix of about 20 pages,
on “Spontaneous Generation,” 74 pages on “The Theories of Inflammation”;
while the body of the volume, 426 pages, appears to be devoted to
the “Philosophy of Venous Congestion.” A paper on the “Comparative
merits of the Hippocratic and Anatomical Schools,” together with
a review of the writings of Louis, serve to complete the second volume
of the work.

The Pamphlet, mentioned at the head of this notice, is a series of
"Essays on the Philosophy of Vitality as contradistinguished from Chemical and Mechanical Philosophy; and on the modus operandi of Remedial Agents." This pamphlet constitutes a part of the third volume of the "Commentaries," and fully sustains the character of the two volumes we have had the opportunity of examining.


The great practical value of Wilson's Anatomy, as a manual for the student, the practitioner, and for all who may desire to become acquainted with the subject, is too well attested by the unprecedented success of the work, and the universal verdict in its favor, to render recommendation necessary. The present edition is greatly enlarged, and its value much enhanced by numerous new illustrations. "The extensive additions made by the hand of the author, in successive revisions, are indicated by the fact, that it contains fully one-fourth more matter than the previous American edition, rendering a smaller type, and an enlarged page, necessary to keep the volume within a convenient size."

The work has heretofore been edited by Dr. P. B. Goddard, but the present edition bears the name of Dr. William H. Gobrecht—well known, both as a teacher of Anatomy and as the Editor of works in which he has creditably labored. His valuable initial chapter is an introduction which early bespeaks the interest and attention of the reader for the balance of his labor upon his author's work. We have ever commended Wilson's Anatomy, without hesitation or reserve, to students of medicine, and the present edition only increases our approbation.


Although we have not room for even a full notice of the above work, we yet call attention to it, and will dwell upon it more fully hereafter. This is truly a splendid edition of a splendid work on the Practice of
Editorial.

1858.

Medicine. It comes to us just in time for the opening sessions in the various Colleges. The English work costs eight or ten dollars. This improved American copy only three or four. Dr. Condie has added largely to its value, and has adapted it well, to the various diseases as they prevail in all parts of our widely extended country. This notice is intended particularly for the students in our own and other Colleges. We shall review the work more fully in our next issue.

The Nashville Record of Medical and Physical Science.—The face of a new acquaintance is ever agreeable and interesting to us; but with far more interest and pleasure do we contemplate the countenance of old and familiar friends—friends, too, concerning whose fate we had felt somewhat uncertain. The breaking up of the offices of our two valued exchanges, the Memphis Medical Recorder and The Southern Journal of the Medical and Physical Sciences, by the removal of their respective editors to Nashville, certainly, suggested the inquiry—What is to become of our interests?—The question has been promptly answered—the temporary silence of the two parties has been occupied, it appears, in business-like, matter-of-fact courtship, which has resulted in the happy marriage of the worthy couple, and the comely offspring greets us in the Nashville Monthly Record. The name of Professor Daniel F. Wright is familiar to our readers, and not less so is that of Professor Richard O. Curry. We wish them, in their congenial and well-assorted union, even more happiness and success than they enjoyed as separate journalists.

Medical Journal of North Carolina.—The two first numbers of this valuable bi-monthly are before us. Its original, eclectic, editorial and miscellaneous contents fully assure us that the old North State has waked up in medical matters to some purpose, and suggest the idea, that it may, ere long, not only overtake, but outstrip some of her sisters, who had taken a long start of her. The editor of this new comer to our sanctum is Edward Warren, M. D., son of Dr. Edward C. Warren, one of the Vice-Presidents of the American Medical Association. Our new confrère is well known to the Profession as the successful essayist in a recent contest for the Fiske fund prize. His subject was, we think, "The Influence of Pregnancy upon Tubercular Development."

It affords us pleasure to place the North Carolina Medical Journal upon our list of exchanges, and we will endeavor to enrich our own pages from its valuable fund. It is published bi-monthly, at Edenton, North Carolina, under the auspices of the State Medical Society.
American Dentists in Europe.—There are, we believe, from twelve to eighteen American dentists engaged in practice at the present time in the different parts of Europe, and all, so far as we have been able to learn, are receiving the most flattering encouragement. There are two in London, one in Manchester, three or four in Paris, one in Berlin, one in Rome and one in Madrid. There are also others whose places of residence we do not know, and every year adds to the number. We have recently learned that Dr. F. Fuller, of Portsmouth, N. H., intends visiting Europe in a few months, but whether he goes merely for purposes of pleasure or with a view of practicing his profession abroad, we are not informed. A gentleman of his intelligence and professional capacity will scarcely fail to meet with a kind reception from the members of his profession on the other side of the Atlantic. We wish him a pleasant trip and safe return.—[American Journal of Dental Science.

We, too, have a friend among the American dentists in Europe. Dr. J. W. Spear, formerly a practitioner in this place, but more recently of New York, has, we understand, removed to England, where, we are gratified to learn, he is much pleased with the encouragement he has received. We sincerely wish him that full amount of success which his urbane manners, gentlemanly bearing, and fine professional abilities are so well calculated to secure him.

The Cauterization of Strictures of the Nasal Canal, by means of Cat-guts impregnated with a solution of Nitrate of Silver. By Dr. Raw, Professor of Medicine at Berne.—Ten years ago I conceived the idea of employing this means for cauterizing contracted or indurated canals; I first made the experiment on the Eustachian tube, and afterwards on the urethra, and on the nasal canal. Process: The cat-guts are cut into pieces of convenient length, polished at one extremity which is smoothed with a very fine file, then washed in a solution of potash to free them from the oil which they contain. They are afterwards plunged into a strong solution of nitrate of silver (1 part to 10 of distilled water), from which they are taken at from four to eight hours, according to their thickness; they are then dried by suspension in the open air in a dark place. If the cat-gut is left too long in the solution it will become twisted and distorted. After drying, the surface and the interior are saturated with crystallized nitrate of silver. Should there be any inequalities they must be removed by the file. The pieces of cat-gut thus prepared, are preserved in blackened glass-tubes. In course of time the color of the cat-gut becomes darker, without the curative effect being weakened.

When we wish to use these cat-guts in strictures of the nasal canal, they are flattened at the upper extremity so that they can be applied and fixed to the fistulous orifice at its outlet. After performing some abietgent injections the cat-gut is introduced, without the coat of oil until it becomes strongly pressed in the contraction. At first the patient experiences scarcely any pain, and that which he feels afterwards has never been so great as to compel me to withdraw the cat-gut before the lapse of twenty-four hours. If the irritation is not too great, introduce
every day a new cord, after having previously injected with fresh water, or what is better, a solution of sulphate of copper. After the second trial we perceive that we may increase rapidly the diameter of the cords. When the irritation becomes too great, which rarely occurs, we introduce cat-guts, not nitrated, until the irritation ceases. When the canal is sufficiently dilated throughout its extent, and the secretion has lost its purulent character, it is well to wear for some time a leaden nail, before allowing the fistulous opening to close. The strictures of the nasal canal not caused by an anomaly of the osseous duct, heal by this method in a few weeks, while we know the other methods often require several months. I have also in several cases successfully used the solution of sulphate of copper.—[Charleston Med. Jour. and Rev.]

Facial Neuralgia—Cauterization of the Helix.—Our readers will perhaps remember the singular treatment proposed in Sciatique which consisted in cauterizing the helix with iron at a white heat. However strange this process may appear there can be offered in its favor a certain number of well established cures, and it is by no means abandoned by practitioners, although in truth the failures have been thus far quite as numerous as the successes. The same means have just been employed in Facial Neuralgia, by Dr. Texier, who has published in the Moniteur des Hopitaux, a communication on the subject. Dr. T. had seen the process applied in this affection by Professor Jobert de Lamballe, and he resolved to repeat it on the first occasion. A young woman had suffered for six weeks with intolerable pains on the right side of the head and in the lower jaw: she had had no rest, and at times experienced inordinately painful exacerbations. M. Texier effected with the instrument at a white heat, the cauterization of the helix at the moment when the pain was at its maximum. The patient uttered a cry and began to weep, then shaking her head as if to see whether she had been dreaming, she declared herself entirely free from pain. The cure was permanent.

Another young woman was for two months troubled with a trifacial neuralgia on the left side, for the cure of which various expedients had been tried in vain. The pain in the jaw was so severe as to render mastication impossible, and she lived only upon soups and milk. The cauterization of the helix was quite as successful in this case as in the preceding.

A third observation gave precisely the same result. But M. Texier informs us that this process does not always succeed; very far from it, since with eight patients he effected only one cure. It seems that to apply the method with any confidence of success the neuralgia should be fixed and without complications. Cauterization, reserved for cases in which the affection is, so to speak, idiopathic, without any particular character but a violent, steady pain in the course of the trifacial, may become a valuable resource, and we ought to be the better satisfied thereon, because in general such cases are the most difficult to manage, as science possesses little more than uncertain and too often inefficacious means of controlling them.—[Jour. de Méd. et de Chirurgie, and Ib.

Convulsions of Children.—Irrigating the head with cold water is considered by Dr. Lalesque an excellent remedy in convulsions of children.
Paralysis of the Facial Nerve.—An interesting case of this disease has been reported by Professor Hohl, of the Lying-in hospital, at Halle. It occurred in a new-born child that had been removed from the mother by the aid of forceps. The pressure of the left blade upon the side of the head induced a paralysis of the facial nerve which resisted all treatment. In consequence of this, the child was prevented from drawing the milk from the mother's breast, since all the fluid ran out of the corner of the mouth on the paralyzed side. Nothing could be swallowed until it was placed within the grasp of the muscles of the pharynx. The child died on the twelfth day of inanition.—[American Journal of Dental Science.

Treatment of Threatening Mammary Abscess. R.—Linseed oil, one oz., Honey, flour, do. To be stewed over a slow fire, at a moderate heat, until the flour has become converted into a paste, and completely incorporated with the honey and oil. While warm add to this one ounce of camphor, ground into a fine powder, with a little sulphuric ether or strong alcohol. Mix the camphor with the paste intimately, and spread a plaster on a piece of cloth or cotton; apply this to the inflamed breast, and keep it on night and day until relief is obtained. It is well to take the plaster off every morning, and sprinkle about a drachm of finely powdered camphor over it;—then re-apply as before.

(Dr. Wilkinson, of the parish of Plaquemine, speaks in high terms of the above application in the early stages of milk abscess, or rather in cases where the inflammation of the mammary gland threatens to terminate in an abscess. If applied in the forming stage of the affection, he assures us it will seldom fail, especially when assisted by suitable constitutional treatment.—[New Orleans Med. and Surg. Jour.

Tetanus—Dr. Winston in the Nashville Journal, speaks favorably of heroic doses of opium in traumatic tetanus. He relates several cases in which that agent was employed to advantage, by beginning with one grain of morphia and increasing the quantity with each paroxysm.

Hemorrhage.—Hemorrhage of the temporal artery may be arrested easily, by using a common tailors' thimble and applying a compress over it. Hemorrhage following the extraction of a tooth, may be relieved by cutting a piece of dry sponge into the shape of a cone, and inserting it into the cavity, making the patient close his jaws at the same time. Hemorrhage from sloughing can be arrested by the local application of ergotine.

Anus, Prolapus of.—Dr. Demarquay condemns Blandin's method of excising a portion of the sphincter, and simply removes a portion of the mucous membrane, using the galvano puncture in connection with it.

Mammary Abscess.—The extract of Belladonna spread upon a linen cloth in the form of a plaster, and applied to the breast, is highly recommended in this disease.