

reason or persuasion suffices to deliver Argan from Tartuffe, the religious hypocrite and impostor, who despoils him. It is the virtuous prince, the enemy of fraud, that we need, the heavy hand of the law and the stern face of the magistrate.

### Clinical Notes

#### REPORT OF TWO CASES OF EXOPHTHALMIC GOITER IN MEN.

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CASE 1.—C. M., a man, aged 47; was born in northern Illinois.

*History.*—His family history contains nothing of special interest. The man is a carpenter and has been a hard worker all his life. He is the father of 14 children, 13 of whom are living. They are all healthy and in good physical condition. The patient has always been of a rather nervous temperament, and says that this condition has been growing worse during the last five years, although he managed to keep up his work until the fall of 1904. During the last few years he has also been troubled with muscular rheumatism in his limbs, badly at times, although this seemed to depend to a great extent on atmospheric conditions. Otherwise he has always been normal both physically and mentally as far as is known.

*Examination.*—He came under my observation during January, 1905. He said that for some time past he had been "doctoring" for nervousness, but had been steadily growing worse. His weight in January, 1904, was 180 pounds; at the time I examined him first he weighed 111 pounds. He was emaciated in appearance, and his gait was quick and jerky. There was no exophthalmos present, and both lateral lobes of the thyroid gland were so slightly enlarged that they were not noticeable except when the head was thrown back. Vision was normal. Tachycardia was very prominent, the pulse varying between 140 and 160; the arteries of the neck throbbed forcibly and pulsation of the abdominal aorta was also very marked. Capillary pulse could be plainly seen. The tremor in this case was so marked that it was almost impossible for the man to drink without spilling the contents of a cup, although only partly filled. His appetite was exceedingly good, as a usual thing; bowels were slightly constipated. At this time he was complaining of hot flushes and profuse perspiration, especially after retiring for the night. The perspiration was so profuse some nights that in the morning it became necessary to change all the bedding. Expectoration was frequent and frothy; a slight hacking cough was also present. Albumin and sugar were both absent from the urine.

*Treatment.*—I put him on a solution of ammonia, citrate of iron and sodium bromid, three times a day. I also gave him strychnin gr.  $\frac{1}{4}$ , four times a day. Over the goiter itself I used an ointment consisting of red mercuric iodid gr. vi, potassium iodid gr. xxx, olive oil dram i, wool fat (lanolin) ounce i, which was applied freely with friction. A galvanic current was used daily. The above treatment I continued for three weeks, hoping that I could get the man in condition for an operation. At the end of this time his condition was only slightly improved, so I stopped the strychnin and put him on thyroidectin, 5-grain capsules, one capsule three times a day. I also continued the use of the other medicines. An ice-bag was also used over the pericardium night and day. For about a week I noticed no improvement, but at the end of this time slight changes were noticeable. The tachycardia began slowly to disappear, and at the end of about two months his pulse ranged from 95 to 110. The tremor became less noticeable, but never entirely disappeared. The forcible throbbing of the arteries of the neck also disappeared to a great extent. The flushes of heat and profuse perspiration entirely disappeared, although during the last few months they have been present occasionally. The enlarged gland has slowly decreased in size till it no longer can be seen. The thyroidectin was then discontinued and the patient put on general tonics. About July 1 he wanted to go to work again, but on trying it found him-

self too weak; the fine tremor of his hands was still present. Arrhythmia developed shortly after his being about. Some days he would feel very well and be up around the house, but suddenly his pulse would become irregular and it would be necessary for him to lie down; even then it would be difficult for him to breathe. I again put him on strychnin, iron and digitalis, and after Oct. 1, 1905, he did not complain of the above condition again.

*Result.*—At present he feels very well so long as he does not work, but as soon as he tries to work he becomes tired and nervous. This condition may entirely disappear in time.

CASE 2.—M., a man, aged 36; family history negative.

*Personal History.*—There is nothing in his personal history of interest up to the present except that he has always been of a very nervous temperament.

*Examination.*—I first saw him during the winter of 1905. He appeared to be well nourished, although he claims to have lost considerable flesh during the last few weeks. His pulse averaged 120. Pulsation of the carotids, abdominal aorta and capillaries was present, and he said it was impossible for him to sleep at night because of the hard beating of his heart. The thyroid gland was greatly enlarged and hard. There was no exophthalmos. The von Graefe sign was absent. He had been perspiring profusely of late, and thought this had weakened him considerably. He complained of indigestion a great deal. The urine and blood were negative, as also the abdominal and thoracic organs.

*Treatment.*—I put him on thyroidectin, gr. xv a day, with strychnin sulphate gr.  $\frac{1}{30}$ , three times a day. His improvement was very rapid and in two months he was able to work as hard as ever.

*Result.*—The pulse at present is only slightly above normal. The thyroid gland is almost normal in size and the man feels very well indeed. The profuse perspiration has also entirely disappeared, he sleeps well and his appetite is normal.

#### THE ACCESSORY NASAL SINUSES AND PNEUMOCOCCUS INFECTIONS.

##### A PRELIMINARY COMMUNICATION.

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ANCON, ISTHMIUS OF PANAMA.

This communication contains some of the results of an investigation which is being conducted to determine the relation of inflammations of the accessory nasal sinuses to pneumococcus infections.

Up to this date, July 21, 1906, the accessory sinuses have been examined with regard to this point in 52 autopsies, 37 of which were pneumococcus infections as follows: Lobar pneumonia, 22; acute pericarditis, 1; acute meningitis, 9; pneumococcus septicemia, 5. The remaining 15 cases were controls.

It has been found that 92 per cent. of all pneumococcus infections coming to autopsy show in a very marked degree more or less typical pneumococcus inflammation of one or more of the accessory nasal sinuses. The inflammation is generally intense. It is fibrino-purulent in character, fibrin and mononuclear cells being abundant. Pneumococci are always present and in numbers depending on the duration of the process. A point of great importance is the age of the sinus affection which has been appreciably greater than that of the lung or meningeal lesion.

Ninety-one per cent. of the lobar pneumonia cases showed a sinusitis.

All cases of acute pneumococcus meningitis presented an inflammation of one or more of the sinuses, and in every one the middle ears and mastoid cells were normal.

In the pneumococcus septicemia group 80 per cent. were found to be associated with a sinusitis.

TABLE 1.—PNEUMOCOCCUS INFECTIONS OF THE ACCESSORY NASAL SINUSES.

Number.	Diagnosis.	Date of Autopsy.	Maxillary Sinus.		Ethmoidal Cells.		Sphenoidal Sinus.		Frontal Sinus.		Meninges.	Middle Ear and Mastoid Cells.	Lungs.
			R. L.	R. L.	R. L.	R. L.	R. L.	R. L.	R. L.	R. L.			
464.	Lobar pneumonia.....	July 1.	†	0	†	0	0	0	0	4	Normal.....	Not examined..	Lobar pneumonia.
468.	Lobar pneumonia.....	July 3.	†	†	0	0	0	†	0	†	Normal.....	Normal.....	Lobar pneumonia.
469.	Lobar pneumonia.....	July 3.	0	†	0	0	0	0	0	0	Normal.....	Normal.....	Lobar pneumonia.
472.	Lobar pneu., compl. parotitis, right.....	July 4.	†	0	0	0	†	0	0	0	Normal.....	Normal.....	Lobar pneumonia.
473.	Lobar pneu., compl. malarial fever, e. a.....	July 5.	†	0	**	**	0	0	0	0	Normal.....	Not examined..	Lobar pneumonia.
476.	Lobar pneumonia.....	July 7.	0	0	0	0	0	0	0	0	Normal.....	Not examined..	Lobar pneumonia.
478.	Lobar pneumonia, compl. uncinariasis.....	July 9.	†	†	0	0	0	0	0	0	Normal.....	Not examined..	Lobar pneumonia.
480.	Lobar pneumonia.....	July 11.	0	†	*	*	*	*	*	*	Normal.....	Not examined..	Lobar pneumonia.
481.	Lobar pneu., compl. malarial fever, e. a.....	July 11.	0	0	0	0	0	0	0	0	Normal.....	Not examined..	Lobar pneumonia.
486.	Lobar pneumonia.....	July 13.	†	0	0	0	0	0	†	†	Normal.....	Not examined..	Lobar pneumonia.
487.	Lobar pneumonia.....	July 13.	†	0	†	†	†	†	0	0	Normal.....	Not examined..	Lobar pneumonia.
488.	Lobar pneumonia.....	July 13.	†	†	†	†	†	†	0	0	Normal.....	Not examined..	Lobar pneumonia.
493.	Lobar pneumonia, dental caries, osteitis, see note.....	July 16.	†	0	0	0	0	0	0	0	Normal.....	Not examined..	Lobar pneumonia.
495.	Lobar pneumonia, acute pericarditis.....	July 17.	†	†	0	0	0	0	0	0	Normal.....	Not examined..	Lobar pneumonia.
497.	Lobar pneumonia.....	July 17.	0	0	0	0	†	†	0	0	Normal.....	Not examined..	Lobar pneumonia.
498.	Lobar pneumonia, aortic insufficiency.....	July 17.	0	†	0	0	0	0	0	0	Normal.....	Not examined..	Lobar pneumonia.
499.	Lobar pneumonia.....	July 18.	†	†	†	†	†	†	0	0	Normal.....	Not examined..	Lobar pneumonia.
500.	Lobar pneumonia.....	July 18.	0	0	0	†	0	0	0	0	Normal.....	Not examined..	Lobar pneumonia.
503.	Lobar pneumonia.....	July 19.	†	†	†	†	†	†	†	†	Normal.....	Not examined..	Lobar pneumonia.
504.	Lobar pneumonia.....	July 19.	†	0	0	0	†	0	0	0	Normal.....	Not examined..	Lobar pneumonia.
505.	Lobar pneumonia, acute pericarditis.....	July 19.	0	†	0	0	†	†	0	0	Normal.....	Not examined..	Lobar pneumonia.
508.	Lobar pneumonia.....	July 20.	0	†	0	0	0	0	0	0	Normal.....	Not examined..	Lobar pneumonia.
344.	Acute purulent cerebrospinal Meningitis (pneumococcus).....	March 12.	0	†	**	**	**	**	**	**	Meningitis.....	Normal.....	Normal.
386.	Acute purulent cerebrospinal meningitis (pneumococcus).....	May 3.	†	†	**	**	**	**	**	**	Meningitis.....	Normal.....	Bronchopneumonia.
388.	Acute purulent cerebrospinal meningitis (pneumococcus).....	May 5.	0	†	**	**	**	**	**	**	Meningitis.....	Normal.....	Bronchopneumonia.
406.	Acute purulent cerebrospinal meningitis (pneumococcus).....	May 18.	†	†	**	**	**	**	**	**	Meningitis.....	Normal.....	Bronchopneumonia.
446.	Acute purulent cerebrospinal meningitis (pneumococcus).....	June 17.	†	†	0	0	†	†	0	0	Meningitis.....	Normal.....	Bronchopneumonia.
449.	Acute purulent cerebrospinal meningitis (pneumococcus).....	June 19.	†	0	0	0	0	†	0	0	Meningitis.....	Normal.....	Bronchopneumonia.
461.	Acute purulent cerebrospinal meningitis (pneumococcus).....	June 28.	†	†	0	0	†	0	0	0	Meningitis.....	Normal.....	Bronchopneumonia.
471.	Acute purulent cerebrospinal meningitis (pneumococcus).....	July 4.	†	†	0	0	†	†	†	†	Meningitis.....	Normal.....	Bronchopneumonia.
475.	Acute purulent cerebrospinal meningitis (pneumococcus).....	July 7.	0	0	0	†	0	0	0	0	Meningitis.....	Normal.....	Bronchopneumonia.
506.	Acute fibrino-purulent pericarditis (pneumococcus).....	July 19.	†	†	†	†	†	†	†	†	Normal.....	Not examined..	Bronchopneumonia.
383.	Purulent arthritis, acute pur. meningitis (pneumococcus).....	April 29.	†	†	**	**	**	**	**	**	Meningitis.....	Normal.....	Normal.
433.	Acute pur. meningitis, acute rachitis (pneumococcus).....	June 11.	†	†	0	0	†	†	0	0	Meningitis.....	Normal.....	Bronchopneumonia.
433.	Acute pur. meningitis, acute orchitis tonitis (pneumococcus).....	June 13.	†	†	0	0	†	†	0	0	Meningitis.....	Normal.....	Cirrhosis of lung.
466.	Acute pur. menin., acute pur. arthritis lobar pneu., pleuritis (pneumococcus).....	July 2.	†	†	†	†	†	†	†	†	Meningitis.....	Normal.....	Lobar pneumonia.
482.	Meningitis, arthritis, endocarditis of tricuspid valve (pneumococcus).....	July 11.	0	0	0	0	0	0	0	0	Meningitis.....	Not examined..	Lobar pneumonia.

The sign † indicates a pneumococcus sinusitis.  
The sign 0 indicates a normal sinus.

\* Head section not made.  
\*\* Not examined.

TABLE 2.—CONDITIONS OBSERVED IN CONTROLS.

Number.	Diagnosis.	Date of Autopsy.	Maxillary Sinus.		Ethmoidal Cells.		Sphenoidal Sinus.		Frontal Sinus.		Meninges.	Middle Ear and Mastoid Cells.	Lungs.
			R. L.	R. L.	R. L.	R. L.	R. L.	R. L.	R. L.	R. L.			
470.	Anemia, chronic malaria, purulent arthritis (staphylococcus).....	July 3.	0	0	0	0	0	0	0	0	Normal.....	Not examined..	Bronchopneumonia.
474.	Enterocolitis, anemia, chronic malaria.....	July 5.	†	†	0	0	0	0	0	†	Normal.....	Not examined..	Bronchopneumonia.
477.	Amebic dysentery.....	July 6.	0	0	0	0	0	0	0	0	Normal.....	Not examined..	Normal.
479.	Malarial fever, e. a.....	July 9.	†	†	0	0	†	0	0	†	Normal.....	Not examined..	Normal.
483.	Anemia bronchopneu., chronic malaria.....	July 12.	0	0	0	0	0	0	0	0	Normal.....	Not examined..	Bronchopneumonia.
485.	Epithelioma of tongue.....	July 13.	0	0	0	0	0	0	0	0	Normal.....	Not examined..	Normal.
489.	Mastoiditis, suppurative encephalitis.....	July 14.	0	0	0	0	0	0	0	0	Pachymeningitis	Mastoiditis...	Bronchopneumonia.
490.	Malarial fever, e. a.....	July 14.	†	†	†	†	†	†	†	†	Normal.....	Not examined..	Normal.
491.	Amebic dysentery.....	July 15.	0	0	*	*	*	*	*	*	Normal.....	*	Bronchopneumonia.
494.	Bronchopneumonia.....	July 17.	0	0	0	0	0	0	0	0	Normal.....	Not examined..	Bronchopneumonia.
496.	Acute nephritis.....	July 17.	0	0	0	0	0	0	0	0	Normal.....	Not examined..	Normal.
507.	Malarial fever, e. a.....	July 19.	0	0	0	0	0	0	0	0	Normal.....	Not examined..	Edema.
509.	Typhoid fever.....	July 20.	†	†	†	†	†	†	†	†	Normal.....	Not examined..	Capill. bronchitis.
510.	Chronic dysentery.....	July 21.	0	0	0	0	0	0	0	0	Normal.....	Not examined..	Vesic. emphysema.
511.	Amebic abscess of brain.....	July 21.	0	0	0	0	0	0	0	0	Normal.....	Not examined..	Bronchopneumonia.

The sign † indicates a pneumococcus sinusitis.  
The sign 0 indicates a normal sinus.

\* Head section not made.

The case of acute pericarditis is of interest because all the sinuses were involved, yet the meninges were normal and the lungs contained only small patches of bronchopneumonia.

The controls were all other than pneumococcus infections just as they came to autopsy; and of these, 28 per cent. had an acute inflammation of the sinuses.

I believe that the portal of entry of the pneumococcus is in most instances an accessory nasal sinus, the mucous membrane of which is probably fitted for the reception of the pneumococcus by an antecedent influenza or rhinitis, instances of infection from a carious tooth being rare.

On some of the cases a few comments will be of interest:

473.—This was a case of malarial fever, *e. a.*, under treatment and developing lobar pneumonia during the 48 hours before death. At autopsy, from inspection and examination of smears, the stage was found to be that of red hepatization, whereas the character of the inflammation in the maxillary sinus was that of an older process.

482.—Pneumococcus endocarditis of tricuspid valve.

483.—Accessory median frontal sinus.

489.—Encephalitis following mastoiditis, in which the accessory nasal sinuses were not involved by extension.

490.—The fluid in the sinuses was hemorrhagic and fibrinous—not purulent.

493.—A tooth infection—caries of right upper bicuspids, abscess, osteitis, and purulent inflammation of right maxillary sinus, the only one involved.

506.—Accessory median frontal sinus. All of the sinuses were involved. There was no meningitis or lobar pneumonia, but an acute fibrinopurulent “primary” pericarditis.

A more detailed account of this work will be published later.

I wish to express my thanks to Col. W. C. Gorgas, U. S. A., Chief Sanitary Officer, for his kind permission to publish this communication.

## AN ACCURATE AND RELIABLE THERMOREGULATOR.

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The multiplicity of thermoregulators on the market is a sufficient proof that none of them is thoroughly satisfactory. A vexatious experience of several years with several instruments resulted in the adoption of the following device which proved entirely satisfactory:

### DESCRIPTION.

This apparatus consists of an automatic burner, the same as is used in lighting residences, and thermostat.

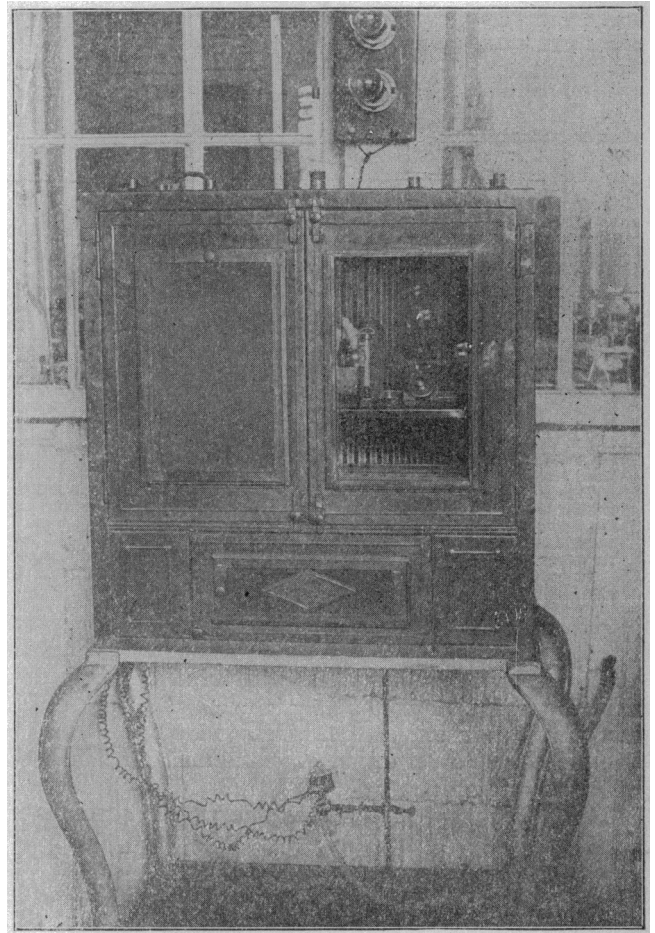
**Automatic Burner.**—This consists of two electro-magnets which control a small valve. In ordinary usage the magnet opening the valve is brought in action by a push-button which, at the same time, operates a spark coil. As the gas issues it is lighted by the spark. Another push-button operates the magnet which closes the valve and extinguishes the light. To obviate the necessity of a spark coil, I bent one of the springs which operates the valve so that when the latter is closed the gas is not shut off completely, and a small flame is left burning.

**Thermostat.**—For over two years I used a thermostat which consists of a metal frame carrying an expanding bar made up of a strip of hard rubber and one of brass firmly bound together. One end of the bar is pivoted while the other has attached to it a brass wire with a flattened point. The latter travels between two platinum contact points, establishing the circuit either on the dark or light side, according to whether the bar expands when the temperature passes beyond a certain point, or contracts when the temperature is lowered.

This form of thermostat is furnished by Bausch and Lomb with their electric thermoregulator for oil lamps. The motive power is furnished either by batteries or, what is much more convenient, if electric light is available, is to reduce the street current by two lamps (one 16 and one 8 candle-power) and connect the thermostat to the reduced current, as shown in the illustration.

While the arrangement described worked satisfactorily in so far as the burner is concerned, the thermostat did not. Now and then it would catch and fail to make the contact; or the contact points would become encrusted and fail to establish the circuit.

Recently I obtained from the Electric Heat Regulating Co., Minneapolis, their thermostat which they use in connection with



a heat-regulating device and which consists of a round steel spring carrying a steel blade. The fore end of the latter travels between two contact points, the contact being made on the light or dark side, according to the expansion or contraction of the spring. The adjustment of this device is very satisfactory, and the working of the thermostat in connection with the burner has proved perfect. The temperature of the incubator has been maintained between 37.5 and 38 C. with a constancy which far exceeds any regulator I had before used.

I am satisfied that in the method of regulating the temperature of an incubator described above I have an arrangement which for simplicity and accuracy will find favor with laboratory workers.

**Brutality for Humanitarian Purposes.**—The *El Paso Times* states that the students of the medical school at Guadalajara, Mexico, have been granted permission by the city council to give four bull fights in the local arena. The proceeds are to be devoted to the purchase of some needed instruments for the city hospital and to the establishment of a medical library for the use of the students.