

hear counsel, so that he will be in no danger of hazard-  
ing one of those rash and ignorant opinions which  
have so much disgraced this branch of medical prac-  
tice. After thus judicially hearing the case it should  
be his further duty to certify his opinion to the court  
by whom the reference is made. In proper cases there  
might be allowed an appeal from such opinions to a  
supreme court of governmental experts appointed by  
the State at large. It may be said that this may be  
productive of occasional delay. This is true, but the  
difficulties thus arising would not be so great as those  
which almost every contested medical issue now in-  
volves, and which in cases of insanity have led courts  
so often to grant new trials from sheer despair of  
drawing a decisive conclusion from the jargon thus  
introduced. Soon, also, the delays of appeals would  
be reduced, for certain cardinal questions would be  
settled beyond dispute. We should soon know whether  
there is such a thing as moral insanity, and whether  
it is practicable to distinguish human blood after the  
expiration of a week from the period of its drying.  
Settle a few such points as these and we relieve justice  
of a large part of the uncertainties by which it is now  
beset, and we shall have a series of rules by which  
cases can be intelligently, consistently and humanely  
conducted. Nor will this be all. We shall be able to  
get the judicial utterances of science as to vexed issues  
of fact, instead of the interested arguments of experts  
who are virtually employed as counsel by the party  
calling them or the wild utterances of philosophic  
monomaniacs who are called simply because of their  
absorption in some unique theory of their special con-  
coction. . . . Experts as counsel, indeed, will find  
a proper and important office in presenting the two  
sides of the issue to the expert who acts as referee;  
but the expert who fills this last judicial post will be  
disembarrassed of all personal relations; he will have  
no client to serve, and no partisan extravagances to  
vindicate. He will render his opinion as the advocate  
neither of another nor of himself. When he speaks  
he will do so judicially as the representative of the  
sense of the special branch of science which the case  
invokes, governed by the opinion of the great body of  
scientists in this relation, and advised of the most  
recent investigations. When this is done, we shall  
have expert evidence rescued from the disrepute into  
which it has now fallen, and invested with its true  
rights as the expression of the particular branch of  
science for which it speaks."

Certainly neither of these suggestions would involve  
so startling a change or so long a step forward as that  
by which we recently, under the guidance of members  
of this very Society, disencumbered our judicial system  
of the whole body of "Crown's quest" law; and as  
certainly any reformation which can rescue the testi-  
mony of a whole profession, and a profession neces-  
sarily both learned and right-minded to the highest  
degree, from its present distressing uncertainty and  
point-blank self-contradiction, upon matters of vital  
importance to the whole community, must be worth  
some pains to bring about.

— Gum arabic, for which the call has of late been  
rather frequent in cases of irritative coughs, has reached  
a very high price (more than triple its former price),  
owing, it is said, to troubles in the Soudan, which have  
checked its exportation.

## Clinical Department.

### RESULTS OF TREATMENT OF EPILEPSY BY BORAX.

BY CHARLES D. JONES, M.D., NEW YORK.

THE use of borax in preventing epileptic convul-  
sions is recommended by the editor of "Strümpell's  
Text-Book on General Medicine"; is said by H. C.  
Wood, in his work on "Therapeutics," to be valueless  
in that direction; is not mentioned at all by Flint, in  
his "Practice of Medicine"; nor in "Pepper's Sys-  
tem"; nor by Bartholow in his "Materia Medica";  
nor in several less noteworthy works which I have  
consulted with the view of testing the relative value  
of borax as compared with the bromides in causing a  
cessation of the convulsions. The following course of  
treatment was carried out, the patients being members  
of the ward for epileptics in the Ward's Island Insane  
Asylum, of New York. Ten patients were selected,  
seven of whom had been for several months under the  
treatment by bromides and who were nevertheless suf-  
fering from frequent convulsions, in most cases the  
attacks occurring almost daily. The bromides had been  
given in part of the cases in doses of twenty grains of  
bromide of potassium three times a day; in the others,  
five grains each of sodium potassium and ammonium  
bromides three times a day. As before stated, three  
of the patients had been receiving no drug.

Of the ten patients subjected to the treatment, five  
were between sixteen and twenty-five years old; two  
between twenty-five and thirty-two; and three over  
fifty. By reference to the daily reports it was possi-  
ble to learn the exact number of attacks which each  
patient had had for some time past, and a record was  
made of these for a period extending back for a month  
before the borax treatment was begun. The borax was  
at first given in doses of ten grains three times a day,  
and was given with the compound tincture of carda-  
mom to allay its possible irritating effect on the stomach;  
and a few drops of tincture of belladonna were added;  
this was given for nine days when the dose of the bo-  
rax was increased to fifteen grains. All the patients  
received identical treatment with the exception of the  
youngest, to whom were given at first six grains, in-  
creased in ten days to ten, and in nine days afterward  
to fifteen grains. An accurate record was kept of the  
number of convulsions each day and night, and al-  
though this had necessarily to be taken from the books  
kept by the ward attendant, the records are probably  
very nearly correct.

From a careful study of the effects of the treatment  
after having been continued for thirty-four days, I am  
unable to see any benefit from it whatever. The  
curve which may represent the number of convulsions  
each day is, in most cases, very irregular, consequently  
any immediate benefit would be marked: nevertheless  
when after thirty-four days' trial, no radical improve-  
ment follows, I consider it safe to conclude that the  
remedy has proved powerless in these cases. In addi-  
tion to the daily curve, another was formed, showing  
the average number of convulsions per day for the pre-  
ceding week, by which a more uniform curve, eliminat-  
ing the very abrupt irregularities, was obtained: nor  
did this give any clue by which the treatment could  
be said to be efficient. After careful inquiry I could  
not see that the drug caused any of the injurious gas-  
tric symptoms reported by some observers.

One of the most favorable cases may be cited more fully: the patient is a man thirty-one years of age; with a history of an epileptic father; in good physical health and of fair intelligence. After about ten days' treatment there seemed to be an improvement in his case; during fifteen days he had but two convulsions, whereas at the beginning of the treatment hardly a day passed without one and sometimes two and three fits. His average curve (as above explained) fell to one-seventh per day for several days; when the fits began to recur with their former frequency and the number rose as high as four in one day. I will not take the space to describe each case in detail; it is sufficient to state that even in the most favorable cases the results were very unsatisfactory; while in most cases a close study of the curves fails to show any marked difference between the curve made under bromides and that under borax.

At the end of thirty-four days the drug was stopped and the patients were put upon the bromides (bromides of potassium and of sodium ten grains each, three times a day).

The observations will be kept up for some time longer, to again determine if possible, any superiority of one treatment over the other. But it may be affirmed with certainty that in these ten cases the borax treatment was futile in its results.

### Reports of Societies.

MASSACHUSETTS MEDICAL SOCIETY,  
SUFFOLK DISTRICT.  
SECTION FOR CLINICAL MEDICINE, PATHOL-  
OGY AND HYGIENE.

ALBERT N. BLODGETT, M.D., SECRETARY.

MEETING of November 20, 1889.

MR. H. H. THOMAS, of the New England Phonograph Company, exhibited the

IMPROVED EDISON PHONOGRAPH AND GRAHOPHONE.

DR. A. N. BLODGETT: Some time ago my attention was called to this instrument about which I had known something, although not in its present state of perfection. It occurred to me that this might be of interest to physicians in various ways and particularly to those connected with public institutions. As you have seen, by speaking into the mouth-piece a record can be produced upon the yielding cylinder of wax, which will remain permanent, and can be reproduced a great many times.

Last night Mr. Thomas and I made experiments at the City Hospital on a patient just admitted to the accident room. His clinical history was taken; but it was not in all respects a success, because he had an injury preventing his speaking with much force, it being a fracture of the ribs. But we got a record from an actual patient in an actual examination which was reproducible and could be understood. Later we got another record from a hypothetical patient, namely, one of the house-officers of the hospital, who was questioned in the same way as would be an ordinary patient admitted under circumstances which precluded any previous knowledge of him or his condition. That record was more distinct, could be very well understood and I am sure any one with a little practice could

use this machine in a way to obtain durable and trustworthy records from the lips of the patient.

An instrument of this kind might be made portable, and a visiting physician in a hospital might give his directions into the funnel, when they would be recorded upon a small cylinder, which can be put upon another machine and the physician's directions as to treatment or his description of lesions can thus be accurately recorded. This record is got by means of the graphophone which is used a great deal in conjunction with the typewriter. I know how difficult it is to get full directions in the wards from the visiting physician, and here we have the means of an absolute record.

In medico-legal cases I think it would be of great service because the utterances of the patient could be reproduced at an indefinite period afterward, and I should suppose would be evidence in the case.

DR. H. J. BARNES read a paper entitled

CAN THE QUALITY OF THE WATER SUPPLIED TO THE CITIZENS OF BOSTON BE IMPROVED?<sup>1</sup>

DR. J. G. BLAKE: The difficulties in effecting any decided improvement in the water are numerous. The subject is a complicated one, and as the members know, I had a somewhat distressing experience which I did not seek at the time.

The chief trouble, as far as I have found, has not been with the Water Board. The Board must have the coöperation of the City Government, and the disposition of the Board has been shown in the pretty thorough manner in which the basins have been cleaned out. When it comes to preventing and stopping the more dangerous sewage contaminations, the Water Board is dependent upon another department of the city. My experience leads me to think that if this Society can compel the Law Department to a more active enforcement of its duty, the water-supply will be improved much sooner than if no such influence is brought to bear. The difficulty has been, no matter how carefully your cases are selected and prepared, you have to depend upon the Law Department; one or two cases are put in and the others are pigeon-holed.

I spent a good share of twenty-eight months in the City Hall, trying in the first place to get a law which would enable us to reach those cases, and endeavoring fruitlessly for the most part, to get that law enforced. There seemed to be an indifference, or fear that the law was not sufficient, or some other motive. During that time it was absolutely impossible from any personal effort on my part to compel the enforcement of that law which is on the statute book to-day and which I believe is amply necessary for the protection of the water-supply of Boston from the most dangerous contamination. I don't know whether the Law Department is differently constituted to-day; I think it is.

If I were called upon to point out a remedy, I would say, *Give the Water Board its own lawyer*, and let it be understood that it is his duty to put the cases into court and press them; and you would then find a smaller number of contaminations. I am indignant when I think of the fruitless effort I made to get that law enforced. Forty times I have been to that department, appealed, demanded that these cases be put into court; and it was done in one or two cases only. It was demonstrated that the law was sufficient to take every particle of contamination out of Pegan Brook.

<sup>1</sup> See page 25 of the Journal.