

Hecker, in his history of the *Epidemics of the Middle Ages*, mentions that *comets* were seen in 1505 and 1506, and that an *eruption* of Vesuvius took place in 1506, the year of the second visitation of that dreadful scourge the sweating sickness. 1505 was also the year of the petechial fever of Italy; coincident with the third visitation of the sweating sickness in England in 1517, there was an *earthquake* felt most seriously at Tubingen, Nordlingen, and Cala, during a violent storm in which 2000 houses and a church were destroyed at Nordlingen; a *great comet* appeared in 1516 (Wintzerberger, fol. 21, a and b). This year, 1517, was also one in which the *hauptkrankheit* (encephalitis) occurred as an epidemic in the central part of Europe. At the same time there also broke out in Holland an unnamed but dreadful disease which destroyed many, and was somewhat identical with pharyngeal croup, and in the same year the small-pox and measles were conveyed by Europeans to Hispaniola, and committed dreadful ravages. In the year 1529, 25th July, the sweating sickness broke out for the fifth time, and was contemporary with the Trousse-galant in France. *Comets* appeared according to Bona, p. 143 (a girl dying at Lubeck of fright at this meteor). Hecker says, "comets appeared in the course of this year in unusual number", p. 248. One in August 1527, a second in July and August 1529, and a third (Halley's) in 1531, visible in Europe from the 1st of August to October 3rd. This was the one that returned in 1835, its revolutions comprehend between seventy-five and seventy-six years, it having appeared in 1155, 1230, 1305, 1380, 1456, 1531, 1607, 1682, 1758, and 1835, and may be expected again in the year 1910. Fearful *earthquakes*, *fiery meteors*, and *terrestrial commotions* of all descriptions preceded the plague of 1348. Similar coincidences might be brought forward, but our limits will not admit of the enumeration of more facts bearing upon this subject at present.

Peñential Type. We find in the account before us of Epidemic Erysipelas, that most other diseases degenerated into this prevailing one, and this remark is borne out by what has been observed by others. Thucydides, for instance, says of the plague at Athens "that the year was admitted as the healthiest and most free from other diseases; but, if any one had a previous illness, it always determined in this alone; εἶδέ τις καὶ προέκαινέ τι, ἐς τοῦτο πάντα ἀπεκρίθη". Thucyd. ii, 49. This fact has been long observed and is now undisputed. The remark of Dr. Cormack (ASSOCIATION MEDICAL JOURNAL, Nov. 11th, 1853, p. 983), speaking of cholera, "that during the night of the epidemic, the choleraic type was impressed on all diseases, or that there was nothing to be seen except choleraic diseases", is pertinent to this subject.

I fear that this paper has been extended beyond the patience of my readers; but those who take a real and thorough interest in our science will see what I have desired to accomplish in it. With regard to the epidemic that was the scourge of the year under discussion I shall now say nothing, but merely refer the reader to the Table, where he will find an outline of a most dreadful form of epidemic erysipelas, besides fever, etc., which prevailed throughout Greece at the same time.

In this sketch many things have been omitted, that many would desire to have seen introduced; my apology must be, however, not a want of will to enter more into detail, but rather a desire not to weary my readers. We have seen that Hippocrates' observations were a true and faithful portrait of a year that was remarkable for a fearful epidemic; and we are now able to judge, from comparison with others, how strong a likeness there is between the group of phenomena that then obtained, and those which have been described by later authors.

Bridgwater, February 1854.

DESCRIPTION OF A BOX FOR OZONE OBSERVATIONS.

By C. LEESON PRINCE, Esq.

I FORWARD for insertion in the ASSOCIATION JOURNAL my plan of a box for ozone observations, which, after a fair trial of nearly three months, I find to answer every purpose admirably. I am encouraged to request its publication, in consequence of a letter which I have received from Dr. Moffat, and from which the following are extracts.

"The box I had constructed according to your plan for ozone observations I have had on trial for four weeks, and I find it possesses all the requirements for uniformity of results." And at the conclusion of his letter, he says: "I hope, for the sake of uniformity, all who engage in the investigation of atmospheric ozone, will use a box constructed according to your plan."

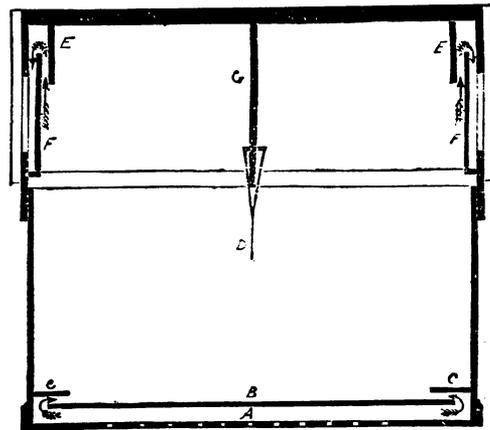


Fig. 1. Longitudinal section.—A. Bottom. B C. False bottom. D. Paper hung between two slips of deal. E F. Screens. G. Middle partition to support the lid.

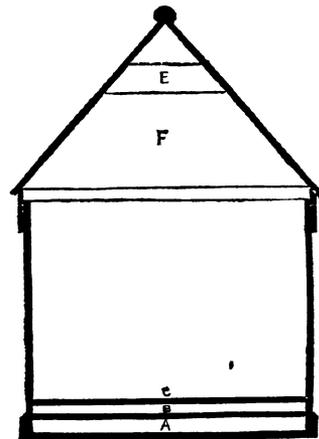


Fig. 2. Transverse section.—References as above.

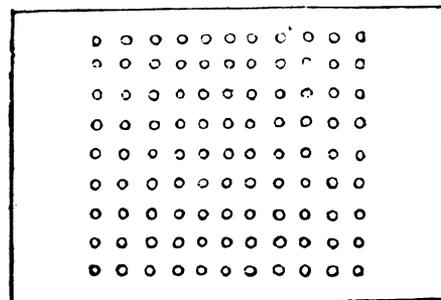


Fig. 3. Plan of bottom.

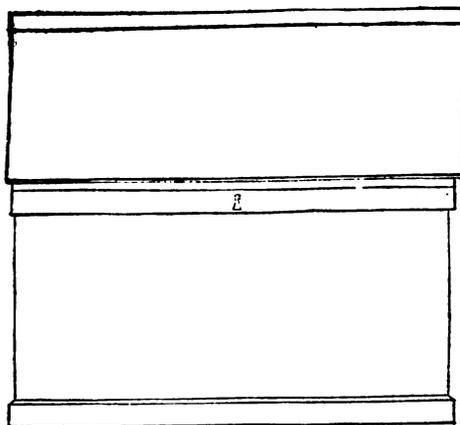


Fig. 4. Elevation of box.

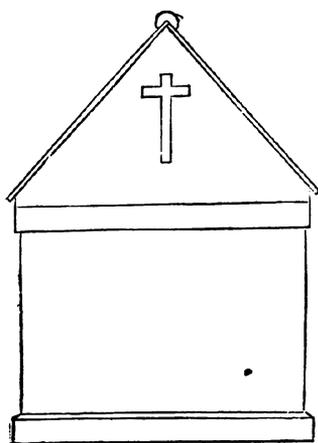
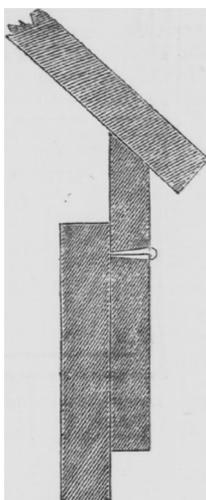
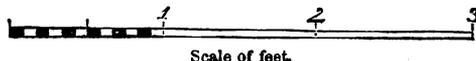


Fig. 5. End elevation.

Fig. 6. Mode of hanging the lid.
(Reduced to half the diameter.)

Scale of feet.

I trust, therefore, that all our number of medico-meteorological observers will, kindly and at once, adopt this form of box.

It is necessary to state that the prepared paper is suspended between two narrow slips of wood, which are attached to the centre of the partition in the lid or roof of the box—there being no partition in the box itself. The whole of the interior, including the internal and external surfaces of the screens *E F*, together with the upper and under surfaces of the bottom *B*, are blackened, to absorb every ray of light. If the box is carefully made according to the plan, and a boy enclosed for a few minutes, he will not discover a single ray of light. When the box is elevated three or four feet from the ground, a current of air will be continually circulating around the suspended paper.

Uckfield, February, 1851.

CASES OF SPONTANEOUS FRACTURE.

By SAMUEL TAYLOR CHADWICK, M.D.

In the *Periscope Review* of the ASSOCIATION MEDICAL JOURNAL for February 3rd, 1854, there are six cases recited of spontaneous fracture, as having occurred in the practice of Professor Barker of America; and five out of the six, ac-

ording to the report of Dr. Smith, made a recovery equally soon with, if not more rapidly than, fractures of an ordinary description.

I certainly consider, from what I have read, together with the little I have seen pertaining to the above subject, that British practitioners cannot lay claim to quite so large a proportion of successful cases as that of our transatlantic brethren.

The following case, which happened to a widow lady, was at the time a source of considerable anxiety, and the result, as the sequel will prove, was exceedingly unsatisfactory and discouraging. Indeed, whatever confidence the patient and her friends might have reposed in me at the commencement of the case, it was evidently on the wane as the case progressed, inasmuch as, at the time she left my care, there were unmistakable manifestations that, in their opinion, the case might have been brought to a far more successful issue. On reviewing the treatment, however, I was not aware but that the greatest vigilance had been exercised; and also, under the circumstances, nothing more could have been done which would have averted the unpleasant result.

CASE I. Mrs. N., aged 51, who resided in the neighbourhood of Newton, of a sanguine temperament and active habits, the mother of four children, stated that she had invariably enjoyed excellent health, which her general appearance fully confirmed. Except during her accouchements, she had not been confined to her bed-room from any ailment. At the final cessation of the catamenia (which took place four years ago), she laboured under some indisposition, but of so slight a nature as not to interfere with her usual avocations.

She consulted me for an injury of the arm, which she stated to have been sustained under the following circumstances. The previous evening, whilst in the act of removing the tea-tray from a table, she was suddenly seized with violent pain about midway between the elbow and shoulder, attended with an audible snap; the arm dropped to the side, and the tray, with its contents, fell to the floor. After having recovered from the shock, she found the limb motionless; and any attempt to raise the shoulder was accompanied by excruciating pain. Her friends had endeavoured to reconcile her to the belief that she was labouring under nothing worse than a severe sprain, inasmuch as her arm could not possibly be broken from so trivial a cause—an opinion which was strengthened by the fact that she retained the power of moving the fingers. Notwithstanding these assurances, however, the patient did not acquiesce in their belief, feeling confident that the arm was fractured. On her advancing from the couch to a chair, to allow an examination of the injury, it was evident, both from her gait and the manner in which she supported the limb, that she was labouring under something more than a sprain. I found preternatural mobility, loss of voluntary motion, swelling, crepitus: in short, there was fracture of the os brachii immediately below the insertion of the deltoid muscle. Scarcely any attempts at reduction were required, as the weight of the forearm brought the fractured ends of the bone into apposition. Two or three straps of the emplastrum saponis, four well padded splints, and an ordinary roller, were applied. She was directed to take two of the following pills, if she felt pain, at bed-time:—

R Pulveris opii, gr. iij.
Pilule aloes et myrrhæ, ℥ij.
Extracti hyoseyami, gr. xv. Misce.
Fiant pilule xij.

A mild aperient draught was also ordered to be taken occasionally. As she concluded to remain in the town, I had frequent opportunities of seeing her. There was more swelling than customary of the hand and forearm, which could not arise from the appliances interfering with the venous circulation, for they were not tight. The pain at the seat of injury was of a dull aching character, but not of such severity as to induce her often to take the anodyne pills. After the first few days, she did not remain in bed, but went about the house; and, as there was nothing to