injury. The airing grounds for the noisy and excited were crowded, and the brother assured me that there was much noise and excitement indoors in wet weather, when the

patients could not get out.

Restraint and seclusion are evidently in free use. In one dormitory I saw thirteen excited patients tied in bed with linen bandages. They were not specially noisy, nor did there appear to be any sufficient reason for their restraint and enforced segregation. In an adjoining room one patient was tied on to a night commode, which was surmounted by a large waterproof cushion, with a hole in the centre; and there were, in the same room, four more of the same appliances, which, however, were then vacant.

It seemed to be, in the opinion of my guide, a quite unobjectionable and certainly efficacious way of getting rid of some of the inconveniences of faulty habits. There were a few men in the airing grounds who were restrained by

means of waist and wrist straps.

I saw some of the suppers laid. The food seemed excellent, and to each patient was allotted a small tin of good red wine.

The whole place was managed by two resident physicians and a colony of sisters and brethren of a religious order, and I was much struck during my visit by the numerous signs everywhere of the kindliness and general intelligence with which the institution was conducted. It presented a remarkable and a very pleasing contrast to the rough-and-ready system which I saw in operation in Venice seven years before, and which I should be glad to learn had participated in the tide of improvement which has of late years been sweeping over the asylums of all civilized countries.

Observations upon "Katatonia." By EDWIN GOODALL, M.D. Lond., B.S., M.R.C.P., Pathologist and Assistant Medical Officer, West Riding Asylum, Wakefield.

Eighteen years have passed since Kahlbaum published his memoir\* upon this subject, yet it may be said that the claims of katatonia to be regarded as a distinct disorder are still unsettled. This prolonged period has not, however, been marked by phases of belief, such as are often exhibited subsequent to the publication of accounts of new disorders,

\* "Klinische Abhandlungen ueber Psychische Krankheiten," von Dr. Karl Kahlbaum. 1 Heft, Die Katatonie. Berlin, 1874.

or follow proposals to rename and reclassify disorders already known; at first enthusiastically believed in and subscribed to, these fall, at a later stage, upon evil days of neglect, and even oblivion. But with katatonia it has been otherwise. At no time does there appear to have been any widespread enthusiasm in alienist circles about this affection; at most it seems to have appealed to individuals, who have expressed merely isolated views, the statement of which has led to nothing more than limited controversy. Probably it may be said with justice that katatonia, for the majority of medical men in asylums in this country (at any rate), was but a name up to quite recent times; having a doubtful significance for some, for many quite without meaning. Granting that this remark is true, the truth brings with it no surprise, for the disorder referred to meets with scant notice in English text-books. This may be said without casting any reflection upon these works, which, of course, are not bound to treat of disorders not universally recognized.

Of late years, however, a full account of katatonia has appeared in English guise,\* and we may hope that it will stimulate inquiry in this country into the claims put forward on behalf of an affection hitherto but little studied. For enlightenment upon the subject, one looks especially to those connected with institutions for the insane of the upper and upper-middle classes, amongst whom melancholia attonita and anergic stupor with cataleptic conditions seem chiefly to occur. The same remark applies to these conditions when cyclic or accompanied by spasmodic states. Kahlbaum records that, amongst his cases, were many teachers and

In considering the ætiology of the disorder, he remarks that katatonia is probably to be found in all countries, just as M. attonita is. One is inclined to doubt whether its frequency of occurrence in this country is equal to that in continental countries, such as France, Austria-Hungary, and Germany, for hysteria—probably far less common here than there—seems to form a prominent feature of the disorder as described by Kahlbaum. This, at any rate, is the impression left upon the writer after perusal of the accounts; and evidently MM. Séglas and Chaslin have come to much the

<sup>\* &</sup>quot;Katatonia," by MM. T. Séglas and Ph. Chaslin; "Brain," Vol. xii. (apparently a translation of an article by these authors, originally published in "Archiv. de Neurolog," 1888, Num. 44-46). The same volume contains a paper by Dr. Julius Mickle, with case. In the article first-named the views of Kahlbaum are stated at some length. For a later German memoir than Kahlbaum's, see C. Neisser, "Ueber die Katatonie," 1887.

same opinion. Hammond (quoted by these writers) says that one of the first cases of katatonia is recorded in the reports of Bethlem Hospital; one would like very much to know whether or not this is the name actually employed by the reporter? We should rather doubt it. The statement probably originated in the circumstance that Dr. Hack Tuke reported several cases of mental stupor occurring in this hospital to the International Congress of 1881, and stated that Kahlbaum approached such cases from the motor side, and spoke of them as "katatonia." However this may be, it is certain that not more than two and a half years ago the student at Bethlem heard nothing of the affection under consideration, although he was perfectly familiar with numerous cases closely resembling and apparently identical with those claimed in certain quarters as instances of katatonia. The simple fact is that the cases were described under other names (as mental stupor), and it did not seem necessary to coin a generic term to cover them all. A Greek name is often a mere cloak for the love of novelty.

In one respect, however, the cases first-mentioned differed notably from those of Kahlbaum—the symptom known by the term "verbigeration" was not observed. Now this, according to the authority mentioned, is peculiar to katatonia, and, therefore, its presence or absence is important from a diagnostic point of view. Personally (with an experience of about three years), I can profess no acquaintance with verbigeration as described by Kahlbaum, and later by his pupil Neisser, and should be glad to learn what, if any, value is attached to this symptom by those who have had larger experience. At present I find it difficult to believe that it is met with at all commonly in this country; yet cases which—it seems probable—would be unhesitatingly included under katatonia by its advocates are common enough here, especially in certain classes of insane society. Granting that some of these are instances in which the disorder is not marked by the presence of this particular symptom of verbigeration, many still remain over, of which it is necessary to give an account. If these are not examples of katatonia, that term comes to have a restricted use only, with which it is impossible to suppose, after reading his description, that its proposer would be satisfied. If, on the other hand, they are, then verbigeration is not the characteristic symptom it is said to be, or, at most, is a

<sup>\*</sup> Probably the best account of verbigeration is that by Clemens Neisser, "Allgem. Zeitschr. f. Psychiatrie." 46 Band, 2 and 3 Heft, 1889.

peculiarity of continental katatonia. Indeed, it might be even more precisely localized, for we find French writers denying that verbigeration is characteristic of any affection whatsoever.

It is not my intention to go into the symptomatology of katatonia, seeing that there exists already a fund of information upon the subject, which, furthermore, is far too comprehensive to be dealt with in a short paper. For katatonia includes the chief forms assumed by diseases of the mind, and, in addition, a motley group of alleged "spasmodic" conditions. The systematic disturbances underlying these clinical manifestations are comprehensive, if we may judge from the statements of writers. One may be allowed to remark upon the singularly vague nature of the former. Dr. Mickle,\* in the early part of his article on katatonia, speaks of a "large, loosely-formed" group of cases (amongst which occur the katatonic), in which there exists "not only a vaso-motor neurosis, with its 'fluxions,' vaso-pareses, and cardiac disturbance, but a motor-tension neurosis, or muscular status attonitus. . . ." The cardiac disturbance and the muscular status attonitus would, doubtless, be open to observation, but might not the vaso-motor neurosis, the "fluxions" and the vaso-pareses easily escape detection? It seems probable that instances might occur in which one would experience hesitation in diagnosing these conditions. But it is, doubtless, possible to have a clear enough conception of katatonia, although one's belief in the existence of the physical states associated with it is unsettled.

After bringing to notice the complex of symptoms which he proposes to designate by a special name, Kahlbaum devotes a chapter to the ætiology of katatonia, and therein deals with its "epidemic and endemic occurrence." The "convulsionnaires" of St. Médard, whom we have been taught to regard as examples of hysteria, catalepsy, epilepsy, and chorea in turn, are now claimed—many of them, at least—as cases of katatonia; it is admitted that amongst them were instances of other disorders such as those specified. The preaching epidemic of Sweden is especially referred to as illustrating katatonia on a large scale, preaching being, in this instance (according to Kahlbaum), synonymous with verbigeration. But mere expressions of opinion of this kind in regard to past events are not calculated to strengthen

the case for katatonia.

A long chapter is devoted by Kahlbaum to the consideration of the pathological anatomy of the disorder named by him. The author made, he tells us, a large number of postmortem examinations, but the pathological appearances of seven cases only are recorded. I can find no reference to the other cases, although it would appear important that we should know in how many of them and in what degree these appearances (described as characteristic) occurred. With such information, we should be enabled to form a more correct estimate of the significance of the diseased conditions described in the seven cases. Even if these are to be considered as average ones—and there is no statement to this effect—we are still without adequate means for arriving at definite conclusions.

I may now specify the morbid conditions of the brain and its membranes, given by Kahlbaum as characteristic of katatonia, making a general comparison—after the manner of the text-between them and the morbid states of the same parts in general paralysis of the insane. In katatonia the appearances indicative of congestion (Stauungserscheinungen) are transient and of slight degree, and the "hyperplasia of the first phase of the process is insignificant." The atrophy or retraction of tissue, marking the second phase, appears late, and the dilatation of the ventricles, associated with this, is not considerable. In general paralysis, hyperæmia and exudation are very prominent; atrophy is not long delayed, and is frequently accompanied by notable dilatation of the ventricles. Again, in katatonia the arachnoid is more particularly affected at the base of the brain, opacity and thickening of the membrane being very evident there, especially in the portions of it extending from the pons to the chiasma and frontal lobes, and from the temporo-sphenoidal to the frontal lobes. In association with the slight affection of the arachnoid over the upper surface of the hemispheres is the insignificant development of the Pacchionian bodies and epithelium granulations of Meyer (outer surface of arachnoid). In general paralysis, on the contrary, the arachnoid is affected principally over the convexity of the hemispheres. Pacchionian bodies and Meyer's granulations, if not individually much enlarged (the former are often of great size), are at any rate extensively developed; the latter may be seen over the whole of the convex surface.

With a view to establishing what he believes to be a specially-characteristic pathological feature of katatonia—

the state of the basal arachnoid—Kahlbaum gives the postmortem appearances in three cases of general paralysis for comparison with the katatonic cases. So far as it goes, the comparison is in favour of his belief. But I think we may fairly expect more evidence in support of a contention of this kind; at present we are left with the record of seven cases of katatonia, three of general paralysis, and a general impression concerning the post-mortem appearances in the latter disease (to the effect that the arachnoid is principally affected on the upper aspect of the brain in general paralysis). That this is very likely correct I do not gainsay, but it is scarcely worth while treating of probabilities

when facts are forthcoming.

A question of some interest is the following: Do opportunities often occur in this country for making post-mortem examinations in cases which might fairly be classed under so-called katatonia? Do the cases, in fact, often die? Kahlbaum says that the prognosis in this disorder is "not bad;" this applies both to recovery and maintenance of life. The inference seems to be that not a few cases terminate fatally. My own impression is to the effect that here we rarely see a fatal issue in cases of this kind; but a more important question is that relating to the cause of death. According to Kahlbaum, katatonia is an affection which often causes death without the interposition of other disorders; we need not even fall back upon exhaustion from refusal of food, or an extreme degree of excitement (two possibilities mentioned by the author quoted) to account for death; it is simply the final stage—as it were, "the most extreme development "-of the condition of stupor, the outcome, in short, of the disease. It would be instructive to hear the experience of English observers in regard to this matter. Amongst the cases of melancholia attonita, of stupor with catalepsy, of mania, alternating with a confusional state, stupor, and depression, of "cyclic" disorders, more or less perfect in type; of, in short, complex-mental disturbance coming under the head "katatonia"—amongst these cases, what proportion terminates fatally directly, without intervention of complications? The proportion, I am strongly disposed to believe, will be found to be a very small one, and it will be surprising if inquiry does not show that a large majority of such cases succumb to intercurrent maladies, especially pulmonary phthisis. It may be noted that Kahlbaum himself speaks of the "extraordinarily close

relationship of tuberculosis to katatonia," and in five out of seven of the cases chosen for record by him the lungs were in different stages of tubercular disease, for the most part very advanced. Clearly, these cases cannot be cited as instances in which katatonia directly caused death, nor do I mean to convey that the author brings them forward as such; but, at any rate, in view of the statement quoted above—as to the relationship between tuberculosis and katatonia—and the fact that five out of seven recorded cases had phthisis, one is justified in entertaining some doubt as to the actual cause of death in the many unrecorded fatal cases, which include those in which death was ascribed directly to katatonia.

Amongst the numerous points in the pathological anatomy of cases coming under the name "katatonia," for the determination of which further experience is necessary, there is one point deserving particular attention, to wit, the state of the cerebral area concerned with speech (outgoing language); with this the condition of the superjacent membranes would, of course, be investigated. This point is of special interest in connection with the symptoms of verbigeration and dumbness. Kahlbaum has drawn attention to the diseased state of the arachnoid in the neighbourhood of the Sylvian fissure, and of the second and third frontal gyri, and has suggested a connection between this pathological appearance and the symptoms referred to.\*

The microscopical examination of the cortex cerebri in cases of katatonia did not furnish Kahlbaum with definite results, but at the date of the memoir under consideration (1874) he had no doubt that the distinctive character of the disease would be established, even histologically, at a later period. I am not aware that any results, based upon microscopical examination, have been obtained since. But this is not the direction in which one is disposed, at the present time, to look for evidence of the distinctive nature of this disorder; the evidence still required is of a clinical kind—such, at least, is my opinion. It is, I think, desirable that the claims put forward on behalf of katatonia should be examined and settled, in order that the term may either be abolished or included in our nosology.

<sup>•</sup> In a recent number of "Brain"—not at present in my possession—Dr. Mickle gives very fully the pathological appearances in his case, described in Vol. xii. of the same Journal.