

*A Contribution to the Study of Dementia Paralytica in Brazil.* By JULIANO MOREIRA, M.D., Medical Director of the National Hospital for the Insane, Rio de Janeiro, and ANTONIO PENAFIEL, M.D., Ex-assistant (1).

BRAZIL, with its vast area, comprising a fifth of the western continent, its various climates, and its population of 21,000,000, formed of several ethnical groups, offers an admirable field for the study of the comparative racial pathology of the insanities.

We have the so-called "white races," represented by the Portuguese, Spanish, Italian, German, Swiss, English, French, Belgian, Hungarian, Polish, Russian, Scandinavian, Dutch, Danish, Greek, and Syrian immigrants and their pure descendants. China contributes the "yellow man" and Africa the negro. These, with the aboriginal Indian and the numerous mestizos of various races, complete an enumeration serving to show the composite character of the Brazilian population.

Did space permit, it would be interesting to study the manner in which the various ethnical groups have intermingled to form what may ultimately become the definite Brazilian type.

Though a new country, Brazil already affords abundant opportunities for the study of the various neuropathies. Statistics have proved the rapid increase of psychoses, and the Government has been obliged to make more extended provision for the care of the insane.

The causes of this increase must be sought for in the rapid intellectual development of our time, the steadily increasing competition, the fears of political, financial and commercial crises, and the overcrowding of our great towns, all tending to intensify the keenness of the struggle for existence of modern life.

The immense advances in intellectual and political life have not been accomplished without a great expenditure of mental energy—an expenditure which must be continued if we are to keep what has already been acquired.

We do not, however, in the present paper, intend to review the various forms of insanity occurring in Brazil. We desire merely to present some statistics of general paralysis in this country, adding certain observations suggested by the facts

gathered therefrom, in the hope that such a task may add something to the knowledge of that very interesting disease as it occurs in our own country.

The statistics of our asylums do not show any alarming increase in the occurrence of the disease, but these statistics are less trustworthy than those derived from European sources, and that for two important reasons—firstly, our people, especially those of the better classes, usually keep an afflicted relative at home as long as his condition permits them to do so, and secondly, the disease in most instances still passes unrecognised by the general practitioner, at least, in the early stage, or when it assumes an atypical form, the syndrome too often being diagnosed as neurasthenia, hypochondriasis, or cerebral syphilis.

The statistics of the Hospicio nacional de Alienados de Rio show during the period from 1889 to 1904 an admission of 9609 insane, 5878 being males and 3731 females. Of the total number admitted 266 were general paralytics, giving a percentage of 2·76. On comparing this with the percentages given by the following statistics obtained from other countries a marked difference is to be noted.

In Russia, Dr. B. Greidenberg, of the Kharkow Ziemskoi Hospital, gives 8·8 *per cent.* for the years 1890 to 1901. But Dr. Idanow, from the statistics of several asylums, reports a percentage of 18·18.

In 3916 cases admitted to the Psychiatric Clinic of the University of Moscow from 1887 to 1901, Professor S. Soukhanoff and P. Gannouchkine found 17·42 *per cent.*

In Germany, Weygandt gives the percentage as from 10 to 15; Siolli found 26 *per cent.*

In Hamburg, Kaes found 14 *per cent.* in 10,148 insane patients.

In Austria, Meynert found in 8546 cases 34·6 *per cent.*

In Belgium, in 7656 cases admitted at Gheel, Peters reports 16·6 *per cent.*

In Italy, Roscioli found 10·5 *per cent.* In Genoa, Giovanni de Paoli found 31·5 *per cent.*

Professor Bianchi, in 555 cases admitted to the Provincial Manicomio of Naples from 1891 to 1893, reports 13·7 *per cent.* Dr. Lojacona reports at the Manicomio de Palermo a percentage of 10·75.

In Denmark, the statistics of the Saint Hans Asylums pub-

lished by Rohwell and Jehersen, show in twenty years a percentage of 17·31. But, following these, Jacobson gives statistics of the same asylum for a period of seven years, showing 23 *per cent.* general paretics.

In England, Dr. Thurnam gives the percentage as 24·33. Dr. Oscar Woods gives 12·5 *per cent.* for England, 4 *per cent.* for Scotland, and only 1·1 *per cent.* for Ireland.

In France, Dr. Planès gives 17 *per cent.* Dr. Laurent puts the percentage in the public asylums of that country at 18. In Paris it is much higher, Charenton Asylums showing 46 *per cent.* amongst the male insane and 5 *per cent.* in the women's division. In the private asylums it varies between 35 and 44·4 *per cent.*

In Switzerland, Dr. Camuset, Saint Alban's Asylum, Lazère, found in 200 admissions, during a period of ten years, a percentage of 5.

In Greece, Dr. Yamiris, Dromocaitis Private Asylum, Athens, observed 19·89 *per cent.* in 1136 patients, from 1887 to 1902. Dr. Scarpas reports 9·7 *per cent.* in the Corfu Asylums.

In Portugal, Professor Bombarda, Rilhafolles, Lisbon, in 2782 admissions from 1892 to 1902 found 10·1 *per cent.*

In the United States of North America, statistics collected from various sources since 1849 by Dr. O. G. Wagner show that there has been a gradual increase from 1·5 *per cent.* to 12 *per cent.* on all admissions. Data from the Manhattan State Hospital East show a percentage of 8·75.

The infrequency of general paralysis in tropical countries has been asserted more than once. Van Brero writes:

*Dementia paralytica* ist eine Irrseinsform, welche in tropischen Ländern wenig beobachtet wird." In Java, among 230 patients he found only two general paralytics. Manning, in New South Wales, writes: "I have never seen or heard of a general paralytic."

Law, in the *Georgetown Reports* for 1887, says: "As regards general paralysis of the insane it is undoubtedly very rare in the colony, and was, in fact, till recent years unknown."

Barnes, in 1891, says: "General paralysis has been repeatedly declared to be non-existent; but it does exist, and is not uncommon."

Friedrichsen, quoted by Jeanselme, saw no cases of general paralysis in Zanzibar—a hot climate—but it is interesting to

note that Ehlers says that in Iceland—a cold climate—the syndrome is unknown.

Nevertheless, we do not consider that climate influences the frequency of the occurrence of the disease. Its incidence is, in our opinion, regulated by those factors of modern civilisation which intensify the stress of life. Excessive mental and emotional strain, alcoholism, sexual excesses, etc., weaken the resisting power of the nervous system and render it liable to be affected in a special manner by the toxins of syphilis and other etiological factors, which are the direct cause of pathological changes.

The percentage amongst the Brazilian patients and that of the foreigners admitted to the National Hospital in 1889 to 1904 were about equal.

Of the 1091 patients admitted to Dr. Eiras' private hospital in Rio from 1889 to 1903, 4·3 *per cent.* were general paralytics.

In 1889 Professor Teixeira Brandao reported to the Brazilian Congress of Medicine of Rio de Janeiro that of 670 patients observed from 1883 to 1888 in Rio and Nicteroy asylums, only 1·6 *per cent.* were affected with general paralysis. At the same congress Dr. Eiras reported a percentage of 6·22 in 610 admissions to his private hospital; but here it is important to note that at that time nearly all the well-to-do patients of the other states were removed to the private hospitals in Rio.

*State of S. Paulo.*—In the public asylum of this State, Dr. Franco da Rocha found in ten years—1894 to 1904—among 1057 Brazilian patients a percentage of 3·87 general paralytics, and among 626 foreigners admitted during the same period the percentage was 8·3.

*State of Rio Grande do Sul.*—In St. Peter's Asylum, from 1884 to 1904, Drs. Dias de Castro and Tristao Torres found in 2252 admissions a percentage of 1·46 paralytics, *vis.*, 27 Brazilians, 3 Portuguese, 1 Italian, 1 German, and 1 African.

*Race and general paralysis.*—The relation of race to insanity has been studied by some authors, but the data are too incomplete and imperfect for positive generalisations. No information of value on this point can be gleaned from statistics owing to the loose definition of the ethnical groups contentedly accepted by the North American and Brazilian physician. As an illustration we may quote Babcock as saying: "The term 'coloured insane' is here applied to all persons of African descent, to full-blooded negroes as well as to half-breeds." In Brazil our

colleagues are satisfied with the imperfect classification : white, mulatto, negro.

Our statistics show that there is no race immunity from the various forms of insanity.

Some years ago it was thought that the negro was exempt from the disease under discussion. Dr. Roberts, of the Eastern North Carolina Insane Asylum, in 1883 had never met with general paralysis among his coloured patients, nor had Dr. Powell, of Georgia, in 1886 ever seen a case in a "full-blooded negro." But the investigations of Kiernan, Berkley, and others show that the negro does not enjoy an immunity.

We ourselves have observed the disease in members of all the ethnical groups inhabiting Brazil, with the exception of the pure aborigine and the directly-imported African negro. The disease frequently assumed the apathetic form, and there was nothing in the symptomatology peculiar to the various groups. Such differences as did exist were individual, and due to the degree of civilisation and education attained by the patient.

The exalted type was seen by one of the writers in the case of a mulatto, the offspring of a European and a negress. He had been an intelligent army physician, and by his own merits had obtained a good practice in an important capital in the Union. In the course of his illness he showed the grandiose delusions so commonly observed in the disease in Europe.

Another interesting case was that of a mulatto, a captain of an engineer corps, who became governor of an important state in Brazil. Here also the disease showed all the exuberant symptomatology of the classical type.

Owing to the deficient classification of the ethnical groups by means of the colour of the skin we have on the statistics of our hospital among 148 Brazilian men, 99 whites, 36 mestizos, 10 blacks, and 3 unclassified ; among 9 Brazilian women, 3 whites, 4 mestizos, and 2 blacks !

Table III shows the nationalities of the foreign patients on the statistics of the hospital.

*Influence of sex.*—In various European countries the proportion of female general paretics to males varies considerably. Saunder in 1870 gives the highest proportion, *viz.*, 5 to 7 ! Krafft-Ebing, Schüle, and Sioli give 1 to 7, Greidenberg 1 to

6, Stark 1 to 5, Mickle, Siemerling, Keilner, Roscioli 1 to 4, Peters, Kaes, Thurnam, Giovanni de Paoli, and Bianchi 1 to 3, Jacobson 1 to 3·6, Weygandt 1 to 3·5, Meynert and Idanow 1 to 3·4, Planès 1 to 2·4.

In the National Hospital for the Insane at Rio there is a proportion of 1 female to 18 males in a total of 266 general paretics. Of the females, 9 are Brazilian and 5 foreigners. In Dr. Eiras' Hospital the proportion is 3 women to 82 males. Dr. da Rocha, at the S. Paulo Hospital, found 3 female paretics to 90 males among a total of 1753 insane observed from 1894 to 1904.

Our statistics show that general paresis in females is much less common here than in other countries, the difference perhaps being due to the fact that our women have not yet entered into competition with the male sex in the affairs of business and public life.

The clinical history of the female general paretic in Brazil introduces no new features. Compared with that of the male sex it runs a slower, more even, and less explosive course. The maniacal outbreaks are not so expansive, the delusions of grandeur not so pronounced, the periodical exacerbations and remissions are not so frequent nor so well marked as in the male. A form of quiet dementia is the prevailing type.

*Age.*—The great majority of cases occur between thirty-five and forty-five years of age.

The following table is from the statistics of the Hospicio Nacional de Alienados.

From 20 to 23 years	.	.	.	3 cases.
" 24 " 27 "	.	.	.	6 "
" 28 " 30 "	.	.	.	24 "
" 31 " 35 "	.	.	.	58 "
" 36 " 40 "	.	.	.	61 "
" 41 " 45 "	.	.	.	51 "
" 46 " 50 "	.	.	.	28 "
" 51 " 55 "	.	.	.	13 "
" 56 " 60 "	.	.	.	7 "
" 61 " 65 "	.	.	.	4 "
" 66 " 70 "	.	.	.	2 "
Unknown.	.	.	.	9 "

On the statistics of Dr. Carlos Eiras' private hospital we have :

From 20 to 30 years	.	.	.	6 cases.
„ 31 „ 40 „	.	.	.	18 „
„ 41 „ 50 „	.	.	.	15 „
„ 51 „ 60 „	.	.	.	8 „

Early cases of the adult form of general paralysis occur also in Brazil. We have met with cases in which the disease has come on at twenty-three and at twenty-four years of age.

Franco da Rocha, of S. Paulo, has also observed general paralysis in several patients of twenty-five years of age.

The youngest subject of general paralysis admitted to the Hospicio Nacional of Rio de Janeiro was twenty years of age.

#### *Juvenile General Paralysis.*

Prior to 1877 general paralysis of the insane was believed to be only a disease of adult age. In that year Dr. Clouston described, in the *Journal of Mental Science*, a case of the disease in a boy, æt. 16, and he pointed out that, clinically and pathologically, the disease that affected his patient in no way differed essentially from the adult form. He designated it "developmental general paralysis," and it was looked upon by him as an extremely rare disturbance. Since his article cases have been published in Germany, Austria, France, etc., and as the knowledge of this morbid condition has become more common, so the number of cases has increased. Especial attention has been drawn to the early form of parietic dementia by Krafft-Ebing, Karplus, Alzheimer, Gudden, Regis, Haushalter, Mott, and others.

In 1895 Alzheimer, in a very valuable monograph, was able to collect only thirty-seven published cases, to which he added three cases of his own, with careful microscopical examinations of the nervous tissues. In 1898 Dr. Thiry collected and analysed sixty-nine published cases, which include all those of Alzheimer with three cases from the clinic of Haushalter, which he has observed. Dr. Frederick Walker Mott, the distinguished director of the pathological laboratory of the London County Asylums, has recently published notes of twenty-two cases of juvenile general paralysis occurring in the London County Asylums during three years. The number of cases recorded increases every year, and, although the disturbance is rare, it will be seen from the foregoing remarks that it occurs much



oftener than was hitherto supposed. Here in Brazil we have only an account of two cases—one by Professor Teixeira Brandao, the other by one of the writers. No doubt a great many cases would not be recognised, especially in the early stages of the disease, because of the difficulties in diagnosis, which are more or less considerable.

The following case was diagnosed "a case of imbecility," by two medical men, not alienists :

M—, white, single, needle-woman, æt. 18.

*History.*—No insanity in the family (?). Very little history could be obtained. Her mother was nervous and excitable. Father nervous and syphilitic.

*Personal history.*—Patient was a full-time child and her birth was uncomplicated and natural. Her health was good until eight years old. Her eyes were always healthy, but the milk-teeth were very bad. Mentally she was always deficient. She was sent to school when six years old, but was removed because her education was considered hopeless.

At twelve years she had her first fit when playing in the garden. She suddenly became unconscious, and lay for two hours with her face pale, lips blue, and her eyes open. From this time she gradually got worse, becoming day by day more weak-minded. From time to time occurred a fit of a similar character to the first. She became very spiteful, biting those who came in contact with her.

*Condition when seen, September, 1902.*—Patient has an imbecile, childish expression, and speaks in a childish manner and in a very nasal tone. Her speech is hesitant, tremulous, and syllabic. Attention difficult to obtain. Appeared to understand very simple questions, but was unable to frame a reply. She can stand and walk, but her gait is very unsteady, and she walks with a wide base, hardly raising her legs.

The central incisors are peg-shaped and notched, and there are linear erosions of the enamel.

The tongue is protruded by a succession of inco-ordinate, irregular jerks, and there is marked fibrillary tremors both in it and in the muscles of the face.

The pupils are dilated, unequal, irregular, and do not react to light, and but sluggishly on convergence.

The knee-jerks absent. Plantar reflex present. Tremor in the extended fingers. Taste and smell are good, and there is



apparently no loss of the sensations of touch or pain. Although eighteen years of age there is very little hair on the pubes. Her hands and feet are somewhat blue and very cold. Her appetite is exaggerated. She has lost control over her bladder and bowels.

*Professions and Occupations.*

It is easy to see how certain professions favour the occurrence of several forms of insanity more than others, but with regard to general paresis the influence of occupation is not evident. It has been said that it is a disease of the higher educated classes as distinguished from the labourer or wage-earner, but this is not strictly true, for here in Brazil it affects all classes, without regard to social or financial position or education, and this fact is becoming more evident as the disease becomes more frequent. The statistics of the Hospicio Nacional and of Dr. Eiras' Hospital show that in Rio de Janeiro all classes and professions are represented among the paretics. In Brazil, if any pursuit is especially more liable to the incidence of this disease, it appears to be the commercial (*vide* Table IV).

Of the 266 paretics in the Hospicio Nacional there are 80 (excluding 1 female) whose occupations are unknown, the presumption being that they are of a low class.

It is to be remarked that about half of our patients are illiterate. The women were all of an inferior class and all without education.

Of the paretics at the S. Pedro Hospital, Rio Grande do Sul, the occupations are as follows :

Rural pursuits . . . . .	9	Mason . . . . .	1
Merchants . . . . .	3	Carpenter . . . . .	1
Soldiers . . . . .	2	Tailor . . . . .	1
Public functionary . . . . .	1	Shoemaker . . . . .	1
Clergyman . . . . .	1	Unknown . . . . .	12
The following is from Dr. Moreira's private practice :			
Merchants . . . . .	8	Physicians . . . . .	2
Engineers . . . . .	3	Army Physician . . . . .	1
Military engineer . . . . .	1	Lawyers . . . . .	2
Statesmen . . . . .	3	Army officer . . . . .	1
Marine officers . . . . .	2	Capitalist . . . . .	1
Master mariner . . . . .	1		

*Civil state.*—Of the 266 general paretics at the National Hospital of Rio, 113 are married, 102 single, 22 widowed, and 29 unknown.

In Dr. Eiras' Hospital there are 32 married, 14 single, and 1 widowed.

Kraepelin, Defendorf, and other authors say that the disease is more frequent among the unmarried, but our statistics do not support that statement. One of the writers of this article (Dr. Moreira) has met with only two cases amongst the unmarried in his private practice.

*Duration of the disease.*—The following table shows the time of residence of the patients in the National Hospital from admission till death.

1 to 10 days . . . . .	7
10 „ 29 „ . . . . .	8
1 month . . . . .	35
2 months . . . . .	36
3 „ . . . . .	27
4 „ . . . . .	17
5 „ . . . . .	24
6 „ . . . . .	11
7 „ . . . . .	5
8 „ . . . . .	7
9 „ . . . . .	3
10 „ . . . . .	5
11 „ . . . . .	5
1 year to 1 year and a half . . . . .	16
1 „ and a half to 2 years . . . . .	17
2 years to 3 years . . . . .	6
3 „ 4 „ . . . . .	1
8 „ . . . . .	1

Total 231 .

Of the 35 others, 13 are still in the hospital; the remaining 22 had remissions that permitted them to return to their families. Relatively the onset of the paralysis was later in the women than in the men.

That 190 cases died within a year of their admission shows the rapid course which typical general paralysis runs now and then here in Brazil. However, several of the patients were admitted in a fairly advanced stage. The question arises how

long the patients are affected prior to admission. Dementia paralytica, in our experience, here in Brazil, usually leads to death in the course of a few years.

Now and then it may last for six or eight years, or sometimes perhaps even longer, but the end generally comes in four or five years, and often very much sooner.

Among the cases occurring in the private practice of one of the writers (Dr. Moreira), only one patient lived more than five years. On the other hand, we have seen eight paralytics die a few weeks after the occurrence of the second stage, either from exhaustion attending intense agitation or from a simple progressive decline in the vital metabolism, the end being preceded by a series of apoplectiform seizures.

With regard to the mental state of the general paralytic in Brazil, we have classified 200 cases drawn from hospital and private practice, as follows :

Those with grandiose delusions or excess of euphoria at any stage of the syndrome, 96 cases, or 48 *per cent.* Those who exhibited simply a progressive dementia, 72, or 36 *per cent.* Those who were depressed and never had any excess of euphoria, 32, or 16 *per cent.* Several cases were not grandiose on admission, some were even depressed and afterwards became grandiose. All these are included in the first category. Suicidal tendencies were by no means rare.

The physical signs of these 200 cases were investigated with regard to oculomotor abnormalities, slurring of speech, and state of knee-jerks on admission, the results being as follows :

Pupils unequal . . . . .	95
„ equal . . . . .	98
„ not recorded . . . . .	7
„ fixed to light (one or both) .	63
„ sluggish . . . . .	98
„ normal . . . . .	35
„ not recorded . . . . .	4
Slurring of speech . . . . .	175
Speech clear . . . . .	23
Not recorded . . . . .	2
Knee-jerks normal . . . . .	12
„ absent . . . . .	55
„ increased . . . . .	90
„ diminished . . . . .	39
„ not recorded . . . . .	4

With regard to etiology, one of the writers, while not subscribing to the dictum "no syphilis, no general paralysis," believes in the preponderating influence of syphilis as an etiological factor of the syndrome. In 60 cases observed by him 30 *per cent.* had had syphilis; in 50 *per cent.* syphilis was probable; in the remaining 20 *per cent.* there were no signs of the disease to be found.

Other factors reported in the antecedents of the patients are alcoholic and sexual excesses, head injury, mental shock, and insolation.

Mental strain, excessive work under trying circumstances, and painful emotions are reported among the causes of the syndrome, which arises in most instances from cumulative factors prolonged through a series of years.

TABLE I.—*Showing the number of admissions of each sex to the Hospicio Nacional de Alienados de Rio de Janeiro (1889—1904).*

Years.	Brazilians.		Foreigners.		Total.
	M.	F.	M.	F.	
1889	33	34	12	14	93
1890	181	139	123	55	498
1891	110	48	118	26	302
1892	162	149	219	80	610
1893	185	141	126	58	510
1894	267	215	160	64	706
1895	276	197	175	58	706
1896	232	148	208	77	665
1897	241	239	201	61	742
1898	278	267	171	69	785
1899	241	217	173	83	714
1900	229	216	122	48	615
1901	253	195	144	49	641
1902	247	199	143	54	643
1903	275	249	156	37	717
1904	265	194	152	51	662
Totals	3475	2847	2403	884	9609

TABLE II.—*Showing the Nationality of the Foreigners admitted to the Hospicio Nacional de Alienados de Rio de Janeiro (1889—1904).*

Nationality.	1889 to 1892.		1893 to 1896.		1897 to 1900.		1901 to 1904.	
	M.	F.	M.	F.	M.	F.	M.	F.
Portuguese . . . . .	118	34	309	80	358	106	339	95
Italian . . . . .	35	6	86	17	90	35	96	30
Spanish . . . . .	27	8	73	23	90	41	100	35
French . . . . .	11	6	24	10	91	6	6	8
German . . . . .	5	3	6	4	17	18	12	5
Austrian . . . . .	3	1	6	2	3	4	6	3
English . . . . .	4	—	10	1	10	—	7	1
Russian . . . . .	1	—	—	2	5	2	4	—
Polish . . . . .	3	—	—	—	2	3	1	3
African . . . . .	4	15	3	18	10	7	6	3
Turkish and Syrian . . . . .	—	—	—	1	1	2	1	—
Dutch . . . . .	—	—	—	—	1	—	—	—
Danish . . . . .	—	—	2	—	2	1	—	—
Belgian . . . . .	—	—	3	3	6	1	1	—
Swiss . . . . .	—	—	—	—	2	1	—	1
Swedish . . . . .	1	—	5	—	7	3	1	—
Greek . . . . .	1	—	—	—	—	—	2	—
Roumanian . . . . .	—	—	—	—	1	—	—	—
Chinese . . . . .	2	—	1	—	2	—	—	—
North American . . . . .	2	—	—	—	6	—	2	—
Argentinian . . . . .	1	—	—	2	2	2	3	2
Uruguayan . . . . .	1	—	—	1	—	—	—	—
Paraguaian . . . . .	—	—	—	—	2	1	—	—
Chili, Peru, Ecuador . . . . .	—	—	1	—	1	—	2	—
Cuban . . . . .	—	—	1	—	—	—	1	—
Unknown . . . . .	253	102	139	93	38	28	3	5
	472	175	669	257	667	261	595	191

TABLE III.—Nationality of the General Paralytics in the Hospicio Nacional de Alienados de Rio de Janeiro.

Nationality.	1889.		1890.		1891.		1892.		1893.		1894.		1895.		1896.		1897.		1898.		1899.		1900.		1901.		1902.		1903.		1904.		Total.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			
Brazilian . . . . .	5	1	6	5	5	1	8	10	10	3	11	3	11	10	10	3	11	3	11	11	1	10	10	8	22	8	10	8	10	14	9				
Portuguese . . . . .	2	3	3	5	3	5	8	3	2	9	5	8	3	2	2	9	5	8	5	6	4	2	9	4	5	1	6	5	6	66	1				
Italian . . . . .				1						1					2		2				1		1		2	4	4	4	4	16	1				
Spanish . . . . .														1																	8	1			
French . . . . .																																4	1		
Austrian . . . . .																						2											3	1	
German . . . . .																																	3	1	
English . . . . .																																		2	1
Swiss . . . . .																																		1	1
Cuban . . . . .																																		1	1
Unknown . . . . .																																		7	1

TABLE IV.—*Professions and Occupations of the General Paralytics at the National Hospital for Insane, Rio, and at Dr. Eiras' Hospital, Rio.*

Professions and occupations.	National Hospital for the Insane, Rio, 1889 to 1904.	Dr. Eiras' Hospital, Rio, 1889 to 1903.
Physician . . . . .	2	6
Apothecary . . . . .	2	—
Dentist . . . . .	—	2
Advocate . . . . .	4	3
Notary . . . . .	—	1
Engineer . . . . .	1	7
Surveyor . . . . .	1	—
Architect . . . . .	1	—
Draughtsman . . . . .	1	—
Photographer . . . . .	1	—
Mechanician . . . . .	1	—
Machinist . . . . .	3	—
Painters, etc. . . . .	7	2
Printer . . . . .	2	—
Workman . . . . .	9	—
Carpenter . . . . .	5	2
Cook . . . . .	—	2
Coachman, loader, streetworker, paver Stower . . . . .	51	1
Fisherman . . . . .	2	—
Boatman . . . . .	3	—
Mason . . . . .	3	—
Mason . . . . .	2	—
Barber . . . . .	1	—
Tailor . . . . .	3	—
Soldier . . . . .	4	—
Army officer . . . . .	8	3
Marine officer . . . . .	—	2
Sailor . . . . .	1	—
Policeman . . . . .	2	—
Functionary . . . . .	6	14
Merchant's clerk . . . . .	9	—
Bookkeeper . . . . .	3	1
Merchant . . . . .	11	30
Capitalist . . . . .	1	3
Schoolmaster . . . . .	2	—
Clergyman . . . . .	2	1
Diplomatist . . . . .	1	1
Player . . . . .	2	—
Clown . . . . .	2	—
Farmer . . . . .	10	4
Planter . . . . .	2	1
Attendant . . . . .	1	—
<b>Total . . . . .</b>	<b>172</b>	<b>86</b>

(1) The Editors much regret that, owing to lack of space and to other circumstances, the publication of this article has been so long delayed.