SECOND ANNUAL REPORT

OF THE

MIDWIFERY DISPENSARY,

314 BROOME STREET,

NEW YORK CITY.

MEDICAL BOARD.

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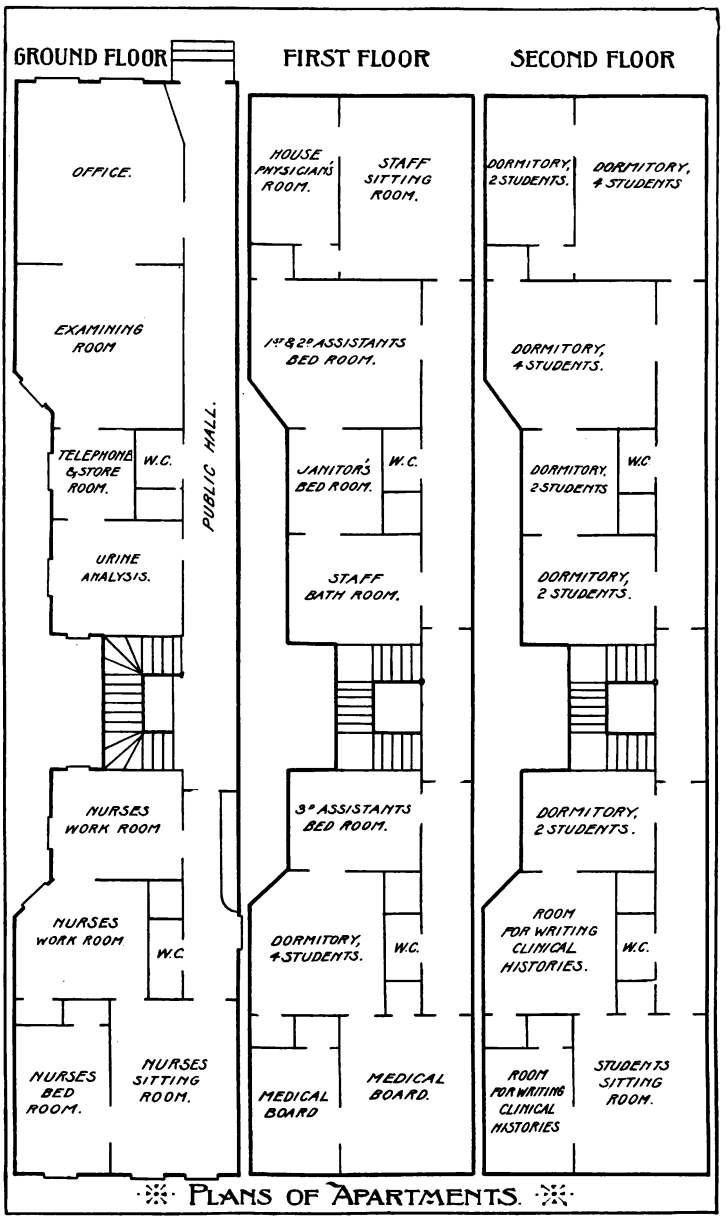

PLANS OF APARTMENTS.

SECOND ANNUAL REPORT

OF THE

MIDWIFERY DISPENSARY.

The Midwifery Dispensary has completed its second year, and presents to the medical public in this report the results of the twelve months ending December 31st, 1891.

The Dispensary occupied on the 18th of January, 1890, a single apartment in a Broome-Street tenement, and accommodated a resident physician and three students. It was not associated with any medical school, and was dependent for its income upon the generous gifts of its friends. It had no patients, and there had been no demand on the part of the medical student for such an opportunity as it was proposed to offer him. At the present time nearly the whole of a five-story tenement has been absorbed for the uses of the Dispensary, and its medical staff has increased until now it consists of a resident physician, three assistants, and twenty students, together with two trained nurses. The number of patients has increased to an average of five per day, and the applications of students are so numerous that there is often no vacancy for several weeks in succession. The Midwifery Dispensary still stands unallied to any other educational institution, and will continue to do so. In fact, it must adhere to this policy, for no one school or college could supply the number of students necessary to accomplish its work. Two of the largest medical schools in this city, however, have recognized the value of a practical course in obstetrics, and refer all their students to this institution for the two weeks' course.

The financial outlook of this enterprise has also assumed a very different aspect from that of the young and immature scheme which was struggling for public recognition two years ago.

The number of women treated by the Dispensary has increased from 199 during the year 1890 to 955 during the year 1891. These figures speak for themselves, and demon-

strate that the care and attention to detail expended upon the first patients of the Dispensary have borne good fruit.

It is also evident that practitioners and students of medicine realize the advantages of the practical and thorough course in midwifery here offered. In 1890, 62 students were instructed at the Dispensary, and in 1891 this total has increased to 243. It is thus evident that the work of this institution has quadrupled during the past twelve months.

The running expenses for 1891 were $6,136.20, against $1,481.07 for 1890; but the cost per patient for 1891 was only $6.42, as against $7.48 for 1890. The cost per capita will, undoubtedly, be still further reduced when the system becomes more fully developed.

During the past year the permanent equipment has been expanded to the extent of $1,024.30. The increase in work has naturally demanded enlargement of the resident staff, and two additional salaried assistants to the resident physician have been appointed. Two trained nurses have also been secured, who prepare the obstetric dressings, and have the care of the labor and post-partum bags and instruments; they also accompany the attending physician to all major operations to act as trained assistants.

A very serious defect in the former method of instruction by the Dispensary was the necessity of making all ante-partum examinations at the house of the patient. During the past year a room has been fitted up in the Dispensary for the purpose of examining pregnant women. A member of the resident staff always conducts the examination in the presence of a nurse, instructing the student in the signs of pregnancy and the methods of mensuration. By this means also the statistics of the ante-partum condition are rendered accurate and reliable.

No report from the Pathologist is published this year, because of the great difficulty in obtaining permission to perform autopsies.

The report of the Embryologist is this year only an enumeration of the specimens collected. Details of work in this branch must be postponed until a later report.

The position of the Orthopedic Surgeon was not created until the latter part of this year (1891). The report on this subject is limited to a single case.

In the near future an amalgamation will be affected with the Society of the Lying-in Hospital of the City of New York.

The attention of the medical profession is therefore called to the fact that all further reports of the work begun under the name of the Midwifery Dispensary will appear as reports of the above Society.

The Society of the Lying-in Hospital of the City of New York, was incorporated under an Act of the Legislature of New York, March 1st, 1799. Subscriptions were asked for and received from many people in the City of New York, among others William Bayard, Herman Leroy, Isaac Gouverneur, Gulian Verplank, Alexander Hamilton, Peter Goelet, Stephen Tillinghast, David Clarkson, Nathaniel Pendleton, Henry Rutgers, Brockholst Livingston, Alexander Hosack, Frederick De Peyster, De Witt Clinton, Richard Riker, Nicholas Fish, Robert Benson, William Renwick, Daniel Phoenix, Leonard Bleecker and Thomas L. Ogden, and many other well-known New Yorkers of that day.

The Society entered into an agreement in 1801 with the New York Hospital, by which a lying-in ward was established and opened for the reception of patients in the latter hospital. This continued in operation for twenty-six years, but inconveniences having arisen, it was finally determined to close the ward, which was done in June, 1827. Various plans were suggested, from time to time, respecting the carrying on of the work of the hospital, the plan ultimately decided upon being the aiding of females requiring assistance during confinement at their own homes. This method has been found very successful in affording relief to the persons requiring such care, and has been continued by the Society for over thirty years.

The Society has a fund invested, the income derived from which is sufficient to carry on this work in a manner similar to that which has been done at the Midwifery Dispensary. The mode of aiding women in confinement adopted by both these charities is virtually the same, and a merger of the two charities into one, it has been thought, would be the best mode of carrying on the work in the future, and as the Lying in Hospital is one of the oldest charitable institutions in the State, it has been thought best that the work should

be carried on by it rather than by the unincorporated association known as the Midwifery Dispensary.

The plan of the merger of the two associations has been substantially agreed upon, so that all that it will be necessary to arrange will be mere matters of detail, and it is expected that in the early spring or by the coming autumn at the latest, the work of the Midwifery Dispensary will cease under that name, but it will be continued in substantially the same manner, and with the medical staff of the Dispensary, by the Society of the Lying-in Hospital.

STATISTICAL SYNOPSIS.

APPLICATIONS.

January.....69	May.....107	September.....142
February.....55	June.....102	October.....156
March.....55	July.....116	November.....137
April.....77	August.....139	December.....189

Total.....1,344.

Number of cases attended by Dispensary	921
" " " secured other attendance	170
" " " referred to other institutions	24
" " " unsuitable	22
" " " moved away	63
" " " waiting confinement January 1st, 1892	144
" " " waiting confinement January 1st, 1891	43
" " " attended by Dispensary	34
" " " moved away or secured other attendance	9

Sources through which patients learned of the Dispensary.

Former patients	512
City missions	72
Outside physicians	59
Good Samaritan Dispensary	50
Midwives	42
Hebrew Charities	17
Notices in institutions and newspapers	17
Treated before	12
Police Department	12
New York Dispensary	9
Other sources	12
Unknown	141
Total	955

ATTENDANCE.

January.....43	May..... 61	September.....114
February.....39	June..... 60	October.....110
March.....50	July..... 72	November.....113
April.....57	August..... 106	December.....130

Total.....955

Number of cases confined by Dispensary...	842
" " " unattended.....	56
" " " confined by midwives	45
" " " confined by outside physicians.....	12
Total.	955

NATIVITY.

Russia.....	549	Scotland.....	4
United States.....	153	Holland.....	3
Ireland.....	60	Switzerland.....	2
Germany.....	59	Sweden.....	1
Poland.....	34	Syria.....	1
Austria.....	31	Turkey.....	1
England.....	17	Nova Scotia.....	1
Roumania.....	14	Norway.....	1
Hungary.....	9	Unknown.....	15

Total..... ...955

CIVIL CONDITION.

Married.....	942
Single.....	3
Widow.....	8
Not noted.....	2
Total.....	955

AGE.

Between 15 and 20 years	104
" 20 " 25 "	321
" 25 " 30 "	289
" 30 " 35 "	137
" 35 " 40 "	77
" 40 " 45 "	9
" 45 " 50 "	1
Not recorded	17
Total	955

Youngest.....16 years (C. N. 989)*

Oldest.....47 years (C. N. 1101)

PARA.

I para in	220 cases	IX para in	17 cases
II " "	178 "	X " "	17 "
III " "	134 "	XI " "	13 "
IV " "	103 "	XII " "	3 "
V " "	88 "	XIII " "	7 "
VI " "	64 "	XIV " "	2 "
VII " "	53 "	XV " "	1 "
VIII " "	48 "	Not noted	7 "

Total.....955

Primiparæ.....23.3% of cases noted

Multiparæ.....76.7% " " "

DURATION OF ATTENDANCE.

Average number of days, attendance on each case.....8.09 days

Least number of days, attendance on any one case.....1.00 "

Greatest number of days, attendance on any one case.....54.00 "

* C. N. refers to the Confinement number of the case as recorded on the history chart.

First Day of Attendance on Post-partum Cases.

Labor day	43
1st day	9
2d "	10
3d "	9
4th "	10
5th "	5
6th "	6
7th "	2
8th "	4
9th "	2
10th "	4
11th "	1
12th "	2
14th "	1
15th "	1
21st "	3
35th "	1
Total	113

VAGINAL EXAMINATIONS.

First stage :—

One	in	18 cases
Two	"	82 "
Three	"	65 "
Four	"	103 "
Five	"	70 "
Six	"	71 "
Seven	"	49 "
Eight	"	38 "
Nine	"	21 "
Ten or more	"	118 "
Cases noted		581
" not noted		36
Total		617

These examinations made by :—

Dispensary Assistant	583
" Physician	136
Midwife	6

Second stage :—

One	in	96 cases
Two	"	190 "
Three	"	98 "
Four	"	90 "
Five	"	60 "
Six	"	49 "
Seven	"	23 "
Eight	"	26 "
Nine	"	13 "
Ten or more	"	66 "
Cases noted		722
" not noted		41
Total		763

Examinations made by :—

Dispensary Assistant	651
" Physician	128
Midwife	6

Third stage :—

One	in	102 cases
Two	"	64 "
Three	"	23 "
Four	"	13 "
Five	"	6 "
Six	"	1 "
Seven	"	1 "
Cases examined		402
" not examined		419
Total		821

These examinations made by :—

Dispensary Assistants	in	174 cases
" Physicians	"	50 "
Midwife	"	1 "

PRESENTATIONS.

The presentation was observed in 764 cases as follows:—

Vertex	in 712 cases	or	once	in	..	1.07	cases
Breech	" 38 "	"	"	"	..	20.10	"
Shoulder	" 12 "	"	"	"	..	63.66	"
Face	" 2 "	"	"	"	..	382.00	"

The presentation was not observed in 210 cases as follows:—

Child born on arrival, but placenta delivered, in	53	cases
Post-partum	93	"
Abortions	64	"

RUPTURE OF THE MEMBRANES.

Artificial rupture of the membranes was done in 137 cases in the second stage, and in 5 cases in the first stage. In two cases the membranes did not rupture until after the delivery of the head.

CONDITION OF THE CHILD.

In the 764 cases in which the presentation was noted, the condition of the child was as follows:—

Vertex (living)			691
" still-born	macerated	6	
" " "	hydrocephalic	1	
" " "	anencephalic	1	
" " "	premature	2	
" " "	prolapsed cord	2	
" " "	no complication recorded	9	19
	Discharged undelivered		2
	Total		712

Breech (living)			24
" still-born	macerated	1	
" " "	premature	5	
" " "	prolapsed cord	3	
" " "	found dead, delivery incomplete	2	
" " "	no complication recorded	3	14
	Total		38

Shoulder (living)		6
" still-born macerated	1	
" " " prolapsed cord	1	
" " " impacted	1	
" " " no complication recorded	3	6
Total		12

Face (living)	1
" still-born anencephalic	1
Total	2

SEX OF CHILD.

Male	462
Female	412
Not recorded (Abortions post-partum, not recorded)	100
Total	974

DELIVERY OF THE PLACENTA.

In 892 cases it is recorded that the placenta was delivered

By expression	in 598 cases
By natural forces	" 186 "
Manually from uterus	" 18 "

The method of placental delivery is not noted in 159 cases as follows:—

Abortions	61 cases
Post-partum	88 "
Not recorded	10 "

IMPLANTATION OF CORD.

The mode of implantation of the cord was recorded in 784 as follows :—

Central	in 403 cases
Lateral	" 319 "
Marginal	" 62 "
Not noted	" 37 "
Total	821

CONDITION OF THE PLACENTA.

The condition of the placenta is recorded in 790 cases.

Normal	in 667 cases
Calcareous	" 63 "
Succenturiata	" 2 "
Apoplexy	" 5 "
Cysts	" 0 "
Fibrous	" 25 "
Fatty	" 53 "

TEMPERATURE AND PULSE ONE HOUR AFTER LABOR.

732 observations of the post-partum temperature, and 738 observations of the post-partum pulse taken one hour after delivery, are recorded.

TEMPERATURE.

95.5 to 96.5	in 1 case
96.5 to 97.5	" 16 cases
97.5 to 98.5	" 271 "
98.5 to 99.5	" 357 "
99.5 to 100.5	" 81 "
100.5 to 101.5	" 6 "

PULSE.

30- 40	in 1 case
40- 50	" 1 "
50- 60	" 38 cases
60- 70	" 152 "
70- 80	" 260 "
80- 90	" 189 "
90-100	" 65 "
100-110	" 15 "
110-120	" 9 "
120-130	" 7 "
130-140	" 1 case

DURATION OF THE STAGES OF LABOR.

First stage :— 562 observations; shortest, 45 minutes; longest, 87 hours; average 10 hrs. 19 minutes.

Second stage :— 686 observations; shortest, 3 minutes; longest, 15 hours 45 minutes; average 1 hour 30 min.

Third stage :— 781 observations; shortest, 3 minutes; longest, 4 hours 5 minutes; average 31 min. 26 sec.

HEMORRHAGE.

First stage :— Hemorrhage was noted in only two of the 617 cases observed in the first stage of labor, and the quantity was less than one pound.

Second stage :— There was hemorrhage during the second stage in 195 cases, the amount of blood lost is shown in the following table :—

Less than one pound	186
One to two pounds	7
Two to three "	1
Three to four "	1

Third stage :— The blood lost during the placental stage of delivery is recorded in 745 cases as follows :—

Less than one pound	696
One to two pounds	42
Two to three "	5
Three to four "	1
Four to five "	1

TEMPERATURE

DURING THE PUERPERIUM.

A.M.

DAY.	96½° to 97½°	97½° to 98½°	98½° to 99½°	99½° to 100½°	100½° to 101½°	101½° to 102½°	102½° to 103½°	103½° to 104½°	104½° to 105½°	No. of Cases Obs'v'd
1st,	26	427	332	47	9	8	1	.....	.....	850
2d,	15	431	343	42	9	6	4	2	.....	852
3d,	5	406	351	58	18	8	4	.....	.....	850
4th,	9	409	339	59	16	7	4	1	1	845
5th,	15	380	369	47	11	5	5	.....	1	833
6th,	11	377	324	43	13	5	5	1	.....	779
7th,	12	390	286	41	14	8	4	.....	1	756
8th,	4	392	278	35	8	1	3	2	.....	723
9th,	8	368	242	24	6	6	1	.....	.....	655
10th,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

P.M.

DAY.	96½° to 97½°	97½° to 98½°	98½° to 99½°	99½° to 100½°	100½° to 101½°	101½° to 102½°	102½° to 103½°	103½° to 104½°	104½° to 105½°	No. of Cases Obs'v'd
1st,	17	350	334	65	16	3	2	3	.....	790
2d,	12	331	342	63	20	8	4	1	.....	781
3d,	4	303	336	90	20	18	3	3	.....	777
4th,	4	287	345	82	20	13	6	1	2	760
5th,	7	264	300	59	18	8	10	5	.....	671
6th,	1	84	90	23	13	5	6	3	2	227
7th,	4	65	62	19	9	5	4	4	1	173
8th,	3	57	51	17	6	5	5	2	.... .	146
9th,	.....	51	36	13	6	4	1	1	.....	113
10th,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

PULSE

DURING THE PUERPERIUM.

A.M.

DAY.	50 to 60	60 to 70	70 to 80	80 to 90	90 to 100	100 to 110	110 to 120	120 to 130	130 to 140	No. of Cases Obs'v'd
1st,	53	169	343	181	76	14	11	3	2	852
2d,	37	134	355	202	78	30	10	3	1	850
3d,	20	119	340	230	105	22	13	3	1	853
4th,	25	124	336	234	97	14	10	3	1	844
5th,	28	135	360	198	71	28	9	1	2	832
6th,	31	122	342	188	57	15	8	3	1	767
7th,	23	118	322	160	61	19	10	1	.....	714
8th,	32	107	345	170	55	10	3	1	1	724
9th,	18	96	326	163	39	11	3	1	2	659
10th,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

P.M.

DAY.	50 to 60	60 to 70	70 to 80	80 to 90	90 to 100	100 to 110	110 to 120	120 to 130	130 to 140	No. of Cases Obs'v'd
1st,	41	138	308	189	67	20	11	4	2	780
2d,	30	103	325	190	74	33	21	2	1	779
3d,	24	84	304	221	85	29	23	6	1	777
4th,	15	101	295	228	71	21	14	4	3	752
5th,	23	88	284	178	63	13	13	4	4	670
6th,	10	26	84	62	23	14	6	3	.....	228
7th,	2	19	67	44	19	11	6	1	.....	169
8th,	4	9	51	36	17	5	4	2	.....	138
9th,	5	15	42	19	20	5	1	.....	.....	107
10th,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

HEIGHT OF FUNDUS UTERI ABOVE SYMPHYSIS DURING THE PUERPERIUM.

DAY.	1 inch	2 inch's	3 inch's	4 inches	5 inch's	6 inch's	7 inch's	8 inch's	9 inch's	No. of Cases Obs'v'd
1st,	5	4	22	82	231	257	141	39	6	787
2d,	5	7	43	168	280	206	69	13	1	792
3d,	3	16	87	254	264	126	24	2	.....	776
4th,	3	24	141	296	200	68	16	2	.....	750
5th,	9	41	219	280	141	37	5	2	.....	734
6th,	15	86	212	227	86	19	.....	.....	.....	645
7th,	23	103	259	157	53	12	.....	.....	.....	607
8th,	39	138	194	116	34	6	.....	1	.....	528
9th,	40	113	152	68	25	1	.....	.....	.....	399
10th,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

BREASTS DURING THE PUERPERIUM.

It is recorded that the breasts were caked upon the several days of the puerperium as follows:—

Upon the 1st day .....in 4 cases
" " 2d " ....." 55 "
" " 3d " ....." 97 "
" " 4th " ....." 113 "
" " 5th " ....." 113 "
" " 6th " ....." 73 "
" " 7th " ....." 66 "
" " 8th " ....." 44 "
" " 9th " ....." 23 "

DATE OF SEPARATION OF THE UMBILICAL CORD.

It is recorded in 681 cases that the cord separated as follows:—

Upon the 3d day.....in 42 cases
" " 4th " .....147 "
" " 5th " .....180 "
" " 6th " .....143 "
" " 7th " .....78 "
" " 8th " .....51 "
" " 9th " .....40 "

PROLAPSE OF THE CORD.

It is recorded that the cord was prolapsed in 10 cases of the 764 where presentation was noted, or one case in 76.4 cases. The presentation and results in these cases were:—

1. (C. N. 255) Shoulder, cord pulsating, podalic version, child asphyxiated at birth, lived 5 days.
2. (C. N. 885) Shoulder, cord pulsating, podalic version, living child.
3. (C. N. 1067) Shoulder, cord pulsating, podalic version, living child.
4. (C. N. 258) Breech, cord pulseless, child breathed a few times.
5. (C. N. 547) Breech, cord pulsating, still-birth.
6. (C. N. 1139) Breech, cord pulseless, still-birth.
7. (C. N. 528) Vertex, cord pulseless, low forceps, still-birth.
8. (C. N. 588) Vertex, cord pulsating manual, extraction of head, still-birth.
9. (C. N. 951) Vertex, cord pulsating, podalic version, living child.
10. (C. N. 1056) Vertex, second of twins, cord pulsating, podalic version, living child.

PLACENTA PREVIA.

In the 764 cases of recorded presentation, placenta previa occurred 6 times, or one case in 127.43 cases.

1. (C. N. 202) Shoulder presentation; living mother and child.
2. (C. N. 349) Shoulder presentation; living child, eight months; mother died third day of œdema of the lungs.
3. (C. N. 398) Breech presentation; still-birth, eight months; mother made good recovery.
4. (C. N. 446) Twins, six months; both vertex presentation; still-birth; mother made good recovery.
5. (C. N. 729) Vertex; still-birth, ninth month; no evidence of fœtal life during labor; mother made good recovery.
6. (C. N. 939) Twins, sixth month; still-birth; mother made good recovery.

ECLAMPSIA.

1. (C. N. 330) Age 33; VIII para; first seen during labor; no previous examination of urine; shoulder presentation; podalic version; suppression of urine; convulsion and death first day p. p.

2. (C. N. 837) Age 20; I para; first seen during labor; no ante-partum analysis of urine; labor normal; convulsion on third day p. p.; recovery.
3. (C. N. 899) Age 27; II para; urine normal Sept. 15th (date of labor); convulsions during labor; low forceps; recovery.
4. (C. N. 1131) Age 38; VIII para; first seen during labor in consultation with outside physician; convulsions during labor; no record of urine examination; high forceps; patient left in charge of physician.

Besides these cases, albumin was found in the urine 14 times ante partum, but in no case did further symptoms appear.

Another class of cases of albuminuria occurred in post-partum cases and indicated an acute nephritis complicating septicæmia. There were three such cases with one death.

CORD AROUND THE NECK.

The cord was around the neck in	211 cases
" not around the neck in	544 "
Total	755 cases

Not present in 2d stage	147	
Abortions	64	
Not noted	8	219 "
Total		974 cases

TWINS.

In the 955 cases attended there were 19 cases of twins, or one case in 50.26 cases of labor.

OPERATIONS.

During 1891 the following operations were performed.

Forceps:

Low	8 cases
High	10 "
To the after-coming head	2 "

Version :

External cephalic	1 cases
Internal podalic	18 "
Manual extraction of the placenta	18 cases
Disengagement of backward displacement of arms	1 case
Reposition of prolapsed arm	2 cases
Manual rectification of face presentation (changed into vertex)	1 case
Perineorrhaphy :	
Primary operation	38 cases
Secondary "	1 case
Total	39 cases
Manual extraction in breech presentations :	
In breech presentations	16 cases
After podalic version	18 "
Total	34 cases
Manual extraction in vertex presentations	1 case

FATAL CASES.

Of the 955 cases treated by the Dispensary, 10 died, or one case in 95.5 cases.

1. (C. N. 295) Age 28; II para; confined by midwife. First seen sixth day post partum; septicæmia, pneumonia, metastatic abscess, hæmatemesis; death forty-eighth day post partum.
2. (C. N. 330) Age 23; VIII para; confined by Dispensary; shoulder presentation, podalic version, still-birth, suppression of urine, convulsions; death first day post partum.
3. (C. N. 349) Age 34; II para; confined by Dispensary; shoulder presentation, placenta previa, podalic version, living child; œdema of lungs, and death third day post partum.
4. (C. N. 399) Age 28; I para; confined by midwife; first seen third day post partum; septicæmia, collapse; death fourth day post partum.
5. (C. N. 420) Age 24; I para; confined by Dispensary; hydrocephalus, vertex presentation, podalic version, severe lacerations of cervix and perineum, septicæmia; death sixth day post partum.

6. (C. N. 426) Age not noted; IX para; confined by Dispensary after repeated failure by others; shoulder presentation, first seen in second stage, shock, podalic version, still-birth; collapse; death on day of confinement. Probable rupture of uterus.

7. (C. N. 769) Age 27; V para; confined by Dispensary; shoulder presentation, podalic version, forceps to after-coming head, still-birth; ante-partum and post-partum hemorrhage from cerfvix, collapse; death seven hours post partum.

8. (C. N. 864) Age 40; VI para; confined by Dispensary; breech presentation, labor easy, puerperium normal till tenth day, septicæmia, sent to Bellevue Hospital fifteenth day post partum; death twenty-second day post partum.

9. (C. N. 1016) Age 35; VII para; confined by Dispensary; labor normal, septicæmia; nephritis; death sixth day post partum.

10. (C. N. 1093) Age 35; IX para; confined by midwife; labor easy; first seen third day post partum; lobar pneumonia; death seventh day post partum.

REPORT OF THE EMBRYOLOGIST.

GEO. S. HUNTINGTON, M.D.

During the year ending December 31st, 1891, the embryological and anatomical material yielded by the service of the Midwifery Dispensary has been systematically collected.

The opportunity for immediate and careful preservation and preparation of the embryos for section, and the abundance of the material, render the prospects of obtaining valuable results exceedingly promising.

The specimens received classify themselves as follows:

1. Human embryos, 22 specimens, from 8 mm. upward.
2. Abnormalities and variations of placenta and funis, 8 specimens,
3. Monstrosities, 2. anencephalous monsters.

The investigations of which these specimens form the basis are at present in progress, and it is expected that some of the results will be incorporated in the next report of the Dispensary.

REPORT OF THE ORTHOPEDIC SURGEON.

T. HALSTED MYERS, M.D.

In November, 1891, the Medical Board decided to appoint an orthopedic surgeon to the Midwifery Dispensary. From that time until January 1st, 1892, 180 confinements were attended and but one malformation was noted.

Congenital deformities are especially frequent in the hands and feet—parts of the body whose strength and usefulness are most important to the poor, and it is the intention of the Dispensary to institute treatment, in the cases which occur in its service, as soon after birth as practicable. In this way much valuable time will be saved, and the best results obtained with the least labor and expense to both patient and surgeon. The deformity in the case mentioned was so rare that I report it rather fully.

CASE I.—Congenital Deformities of Upper and Lower Extremities.

The patient was the second child, born at term after a normal labor, of Russian parents. Nothing abnormal was noted in the placenta, membranes, or the amount of liquor amnii. Measurements of the skull were normal. There were no deformities of the trunk, no paralysis, no spastic condition of the muscles. The first child was well formed. The mother's health had been good during gestation.

My first examination was made when the child was six weeks old. At this time both hands showed contraction of flexor and abductor muscles, presenting well-marked ulnar-palmar club-hand deformity. The left hand also presented one of the rarer forms of syndactylism: there was union of the soft parts alone, opposite the distal interphalangeal joints of the second and third fingers. This caused some constriction of the terminal phalanx of the second finger, whose development was, therefore, imperfect, though all its parts were present. This phalanx could not be flexed or extended voluntarily. There was no union between the two proximal phalanges. With this exception there was no absence nor faulty development of the bones of the upper extremities.

The lower limbs presented a severe degree of talipes

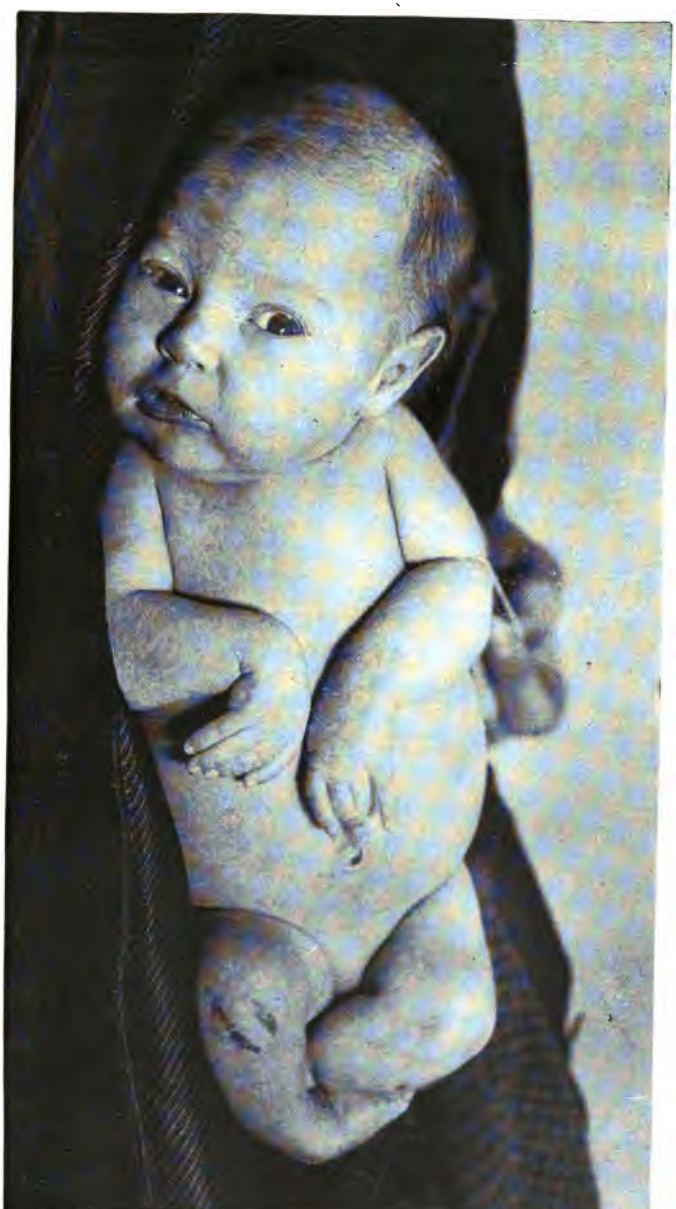

Fig. 1.

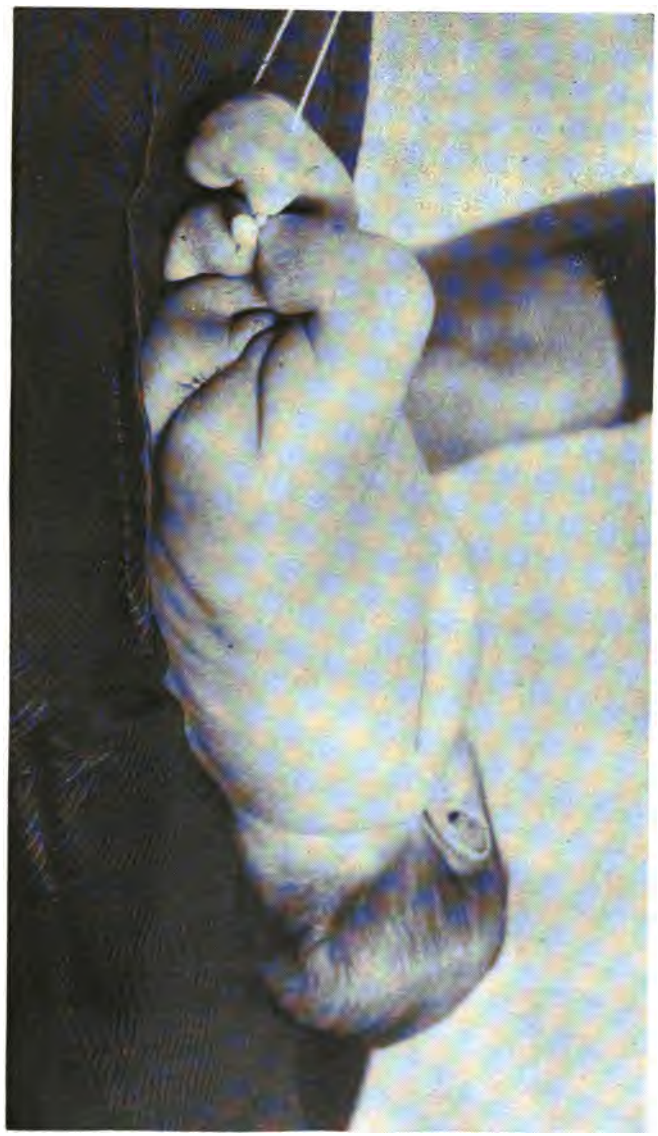

Fig. 2.

equino-varus on both sides. All the toes of the left foot were rudimentary and without nails, each being represented by one phalanx. The terminal phalanx of the fifth toe of the right foot was absent; the fourth and third toes were normal; the second and first were dislocated on the plantar surface of the metatarsal bones, had but two phalanges, and were united by a thick web of soft tissues for their whole length. The extremity of the great toe was connected by a narrow band of integumental tissues, two inches and a half long, to the posterior border of the left leg just below its middle. This band expanded in three places into small masses of soft tissue, and is fairly well shown in the photograph. Just above the attachment of this band at the middle of the left leg was a sharp constriction of the soft parts and even the bones were indented to a considerable degree; the circumference at the constriction was 2¾ in., while half an inch below it was 3¾ in., and an equal distance above 3¾ in. Both legs and both thighs were flexed, and there was some contraction of the soft parts behind the knees. Both patellæ were abnormally small.

Syndactylism is explained in two ways: by local inflammatory changes resulting in union of adjacent parts, or by supposing imperfect differentiation during fœtal development. The latter occurs certainly before the eighth week, when the digits become distinct, and probably much earlier and is due to changes the exact conditions and causes of which are unknown, affecting the early embryonic cell mass. (Pott: *Jahrbuch f. Kinderheilk*, Bd. XXI., 1884; Hirst and Piersol: "Human Monstrosities," page 52, 1891.)

In the case just described the malformations of the feet indicated these very early changes, but the syndactylism seems to me best explained by the occurrence of inflammatory changes at this point, the resulting constriction causing the faulty development below it. This explanation applies also, I think, to the band between the lower extremities. The great toe lies normally, in the early months of fœtal life, against the opposite leg. Inflammatory changes occurred, the tension on the resulting organized lymph band gradually lengthened it, and at the same time caused plantar dislocation of the toes. The saccular dilatations were of subsequent growth. The constriction of the left leg was just above the insertion of the connecting band and

seems to have been due to the same local inflammatory cause rather than the presence of amniotic bands, as is usually the case. (Montgomery: *Dublin Journal*, Vol. II., page 49; Scanzoni: "Lehrbuch der Geburtshülfe," etc.)

This case is unique in this respect. I can find reported only two cases of union of any kind between the lower extremities. Montgomery (*Dublin Journal*, May, 1832, page 140) reported a case where distinct bands of organized lymph formed a complete ligature about both hands and then passed to the legs, which were crossed, and surrounded them in this position just above the ankles; and Lagorsky in 1834 reported a case (Simpson, *Dublin Journal*, 1836, No. 29) where the right leg was absent and a band passed from the lower extremity of the right thigh, to and around the left leg just above the ankle. From the middle of this cord hung the rudimentary foot. The bands in both these cases have been considered of amniotic origin, but in the case I report the local origin seems more probable.

Slight hemorrhage occurred when the band was removed. Manipulation and bandaging soon made considerable improvement in the position of the feet and limbs, and from an orthopedic standpoint it is interesting to note that under massage the constriction began to relax perceptibly, with consequent improvement in the circulation below, so that probably no operation for its relief would have been necessary. The child died of marasmus when about ten weeks old. No autopsy was permitted.