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ART. I.—*Statistical Account of the Cases of Amputation performed at the Pennsylvania Hospital from January 1, 1860, to January 1, 1870; with the Mortality following this Operation in the Hospital during a period of forty years.* By THOMAS GEORGE MORTON, M. D., one of the Attending Surgeons, Surgeon to the Wills Ophthalmic Hospital, etc.

STATISTICAL tables showing the mortality following major amputations at the Pennsylvania Hospital during a period of twenty years (from 1830 to 1850) have been published by Dr. George W. Norris, in the 22d, 26th, and 28th volumes of this Journal.

In the Pennsylvania Hospital Reports for 1868, another table by the same author will be found containing these statistics for another decade, viz., to 1860; while the following tables have been drawn up in a manner similar to those of Dr. Norris, and represent, as accurately as could be obtained, the last ten years' operations, viz., to 1870.

A large increase will be noticed in the number of primary amputations performed during the last ten years; this is owing in a measure to the vast number of accidents constantly occurring in the mining districts, and which can now be brought immediately to the hospital; while from our street railroads, and the general manufacturing establishments of the city, a large number of the most serious form of injuries are almost daily admitted.

No.	Admission.	Age	Name.	Disease or Injury.	Part amputated.	Immediate or otherwise.	Result.	Period of discharge or death.
1	1860	48	Bernard Kelly	Compound comminuted fracture of leg	Thigh	Immediate	Died	Feb. 0, 1860
2	Jan.	14	John O'Brien	Mortification of foot following fracture	Leg	.....	Cured	Oct. 0, 1860
3	March	23	Henry Stoll	Ununited fracture of femur	Thigh	.....	"	March 21, 1861
4	"	35	Patrick Marlon	Abscess of axilla	Shoulder-joint	.....	"	Dec. 11, 1860
5	"	20	Thomas Miller	Forearm torn off	Forearm	.....	"	May, 14, 1860
6	"	28	Fergus Dottinley	Lacerated wound of hand	Hand at wrist-joint	Immediate	"	June 14, 1860
7	April	17	Charles H. Shinn	Foot torn off at ankle	Leg	"	"	June 14, 1860
8	"	27	Adam Ferguson	Caries of ankle	Leg	.....	"	June 7, 1860
9	"	23	John Reedy	Comp. comminuted fracture of leg and foot	Knee-joint	.....	Died	June 0, 1860
10	May	56	Terrance Heine	Lacerated wound of foot	Foot (Pirgoff)	Immediate	Cured	Aug. 23, 1860
11	"	23	"	Ulcer of stump	Leg	.....	"	Aug. 23, 1860
12	"	31	Thomas Leonard	Leg torn off	Leg	.....	"	July 20, 1860
13	"	31	Hannah McKinney	Caries of wrist and hand	Forearm	.....	"	July 12, 1860
14	"	0	Isabel M. Heaton	Fungus limnatoles of thigh	Hip-joint	.....	"	July 21, 1860
15	June	3	John Montgomery	Compound comminuted fracture of hand	Hand at wrist-joint	Immediate	"	July 10, 1860
16	"	22	John Carey	" " of leg	Leg	"	Died	July 0, 1860
17	July	3	Charles Dorsell	Gunshot fracture of wrist	Forearm	"	Cured	Aug. 31, 1860
18	"	4	Daniel Larkey	Fracture of tibia, rupture of ligaments of the knee, followed by caries of ankle	Leg	.....	"	June 7, 1861
19	Sept.	20	Margt. McFarland	Gunshot wound of forearm	Forearm	Immediate	"	Nov. 20, 1860
20	Oct.	2	John McKeon	Crushed hand	Forearm	"	"	Oct. 20, 1860
21	Gal.	44	George Brown	Compound comminuted fracture of forearm	Arm	"	"	Nov. 21, 1860
22	"	10	Gottlieb Hassett	Lacerated hand and forearm	Hand at wrist-joint	"	"	Dec. 17, 1860
23	"	38	William Schlotfeld	Gunshot wound of forearm	Arm	"	"	Nov. 28, 1860
24	"	17	Aug. Donnellson	" " of forearm and arm	Arm	"	"	Nov. 28, 1860
25	"	28	Wilson D. Smith	Caries of foot and ankle of 1 1/2 years' duration	Leg	.....	"	Dec. 21, 1860
26	"	30	John Dallas	Crushed arm and forearm	Arm	.....	Died	Dec. 10, 1860
27	Dec.	8	James Howard	Lacerated wound of wrist-joint	Forearm	Immediate	Cured	March 12, 1861
28	1861	30	Thomas O'Brien	Compound comminuted fracture of hand	Forearm	"	"	May 0, 1861
29	March	20	Jos. Brundt	Lacerated hand	Hand, wrist-joint	"	"	May 30, 1861
30	"	28	Patrick Gallagher	Compound comminuted fracture of leg	Leg	"	Died	April 2, 1861
31	"	31	Patrick Neenan	" " of ankle	Leg	.....	Cured	June 10, 1861
32	April	4	Patrick Welch	" " of forearm	Forearm	.....	"	June 10, 1861
33	"	11	William Evans	Encapsulated tumour of leg	Thigh	.....	"	Aug. 16, 1861

No.	Admission.	Age	Namo.	Disease or Injury.	Part amputated.	Immediate or otherwise.	Result.	Period of discharge or death.
34	1801							
34	May 28	43	Richard Wilson	Frosted foot	Foot, partial	.....	Cured	Sept. 23, 1801
35	June 7	34	Thomas Forbes	Compound comminuted fracture of thigh	Thigh	Immediate	"	Nov. 21, 1801
36	" 13	24	Jas. McNahon	" " of arm	Arm	"	"	Oct. 7, 1801
37	" 13	4	Elizabeth Dillon	Lacerated foot	Foot, partial	"	"	July 25, 1801
38	" 21	4	John Harrison	" " and ankle	Leg	"	"	July 25, 1801
39	" 20	5	Jos. Coleman	Compound comminuted fracture of foot	Arm	"	"	July 1, 1801
40	" 28	38	George Ward	" " of leg	Leg	"	"	Aug. 7, 1801
41	July 2	50	Patrick Kennedy	Gunshot wound of hand	Hand	"	"	Oct. 3, 1801
42	" 4	20	John Smith	Compound comminuted fracture of arm	Arm	"	"	Oct. 7, 1801
43	" 0	10	James Shannon	" " of leg	Leg	"	"	Sept. 13, 1801
44	" 11	50	William Grimes	Compound comminuted fracture of arm	Arm	"	Died	July 13, 1801
45	" 18	10	Robert Diegen	Incarated forearm	Leg	"	Cured.	Sept. 3, 1801
46	" 20	14	G. Dietzo	Compound fracture of humerus	Arm	"	Died	Oct. 10, 1801
47	Aug. 20	12	John Carroll	Crushed arm	Shoulder-joint	"	Cured	Oct. 7, 1801
48	" 30	20	Gottlieb Esterley	Compound fracture of wrist and hand	Forearm	"	"	Oct. 3, 1801
49	" 30	10	Henry Cummings	" comm. fract. of foot and ankle	Leg	"	"	Dec. 0, 1801
50	" 31	48	Daniel James	" " of leg and foot	Leg	"	"	Aug. 22, 1802
51	Oct. 8	13	Bernard Clarko	Complicated fracture of ankle	Leg	"	"	Dec. 23, 1801
52	Nov. 4	10	James Langhain	" " "	Leg	"	"	Jan. 0, 1802
53	" 23	23	Jacob Diemer	Compound comminuted fract. of left leg	Thigh	"	"	Aug. 26, 1802
54	Dec. 3	27	John H. Wiggins	Necrosis of humerus	Shoulder-joint	.....	"	Jan. 8, 1802
55	1802							
55	Jan. 1	12	Henry Boyd	Crushed hand	Hand, wrist-joint	Immediate	Cured	March 21, 1802
56	March 1	28	John Butler	Compound comminuted fracture of arm	Arm	"	Died	March 4, 1802
57	" 13	10	Stanford W. Albert	Deformed leg	Leg	.....	Cured	July 25, 1802
58	" 14	20	Michael Keenan	Compound comminuted fracture of forearm and fracture of arm	Arm	Immediate	"	May 5, 1802
59	April 12	64	John Kirsch	Compound fracture of leg	Leg	"	Died	June 12, 1803
60	" 15	30	Edw. Schufhantel	Lacerated hand	Hand, wrist-joint	"	Cured	May 20, 1802
61	" 17	18	Thomas Price	Mortified foot	Leg	.....	"	July 10, 1802
62	May 0	13	Alex. Kennedy	Compound fracture of ankle	Leg	Immediate	"	Aug. 7, 1802
63	" 10	48	Daniel James	Ulcer of stump	Leg	.....	"	Aug. 22, 1802
64	" 26	80	Patrick Warren	Compound fracture of both legs and feet	Right foot (Lisfranc)	Immediate	Died	May 27, 1802
65	" 30	30	" "	" " "	Left leg	"	"	May 27, 1802
66	June 10	16	Isaac Miller	Compound fracture of arm	Arm	"	"	Sept. 29, 1802

No.	Admission.	Age	Name.	Disease or Injury.	Part amputated.	Immediate or otherwise.	Result.	Period of discharge or death.
67	1862	7	Michael Haggarty	Necrosis	Leg	.....	Cured	Aug. 18, 1862
68	"	15	Daniel McOengle	Crushed foot	Leg	Immediate	Died	July 17, 1862
69	"	24	Andrew Crawford	" leg	Thigh	"	Cured	Nov. 13, 1862
70	"	3	Michael Hegan	Popliteal aneurism	Thigh	.....	Died	Aug. 9, 1862
71	Aug.	28	David Martin	Crushed foot	Foot, partial	Immediate	Cured	Aug. 13, 1862
72	"	8	Deanis O'Donnell	" "	Leg	"	"	Dec. 22, 1862
73	"	17	Cornelius Strain	" hand	Wrist-joint	"	"	Nov. 12, 1862
74	"	23	George Fisher	" foot	Foot, partial	"	"	Jan. 9, 1863
75	"	36	John Nespor	" "	Foot (Pirogoff)	"	Died	Nov. 17, 1862
76	"	24	Samuel M. Lano	Compound comminuted fracture of arm	Shoulder-joint	"	Cured	Sept. 25, 1862
77	Sept.	34	William J. Wikler	Lacerated hand	Forearm	"	Died	Nov. 25, 1862
78	"	20	Owen McKinley	Compound comminuted fracture of leg	Leg	"	Cured	Oct. 4, 1862
79	Oct.	4	Eliza Conway	Charles of foot and ankle	Leg	.....	Cured	April 27, 1863
80	"	13	Patrick Heenan	Crushed foot	Leg	Immediate	"	Jan. 26, 1863
81	Nov.	14	"	"	Foot, partial	"	"	Jan. 26, 1863
82	"	22	"	"	Leg	"	"	March 9, 1863
83	"	30	John McKnight	Compound comminuted fracture of ulna and laceration of arm	Forearm	"	"	Feb. 2, 1863
84	Dec.	18	Michael Allen	Crushed leg	Leg	"	"	Feb. 10, 1863
85	"	25	Thomas Weeks	Compound comminuted fracture of tarsus	Leg	"	"	April 2, 1863
86	"	9	Michael Conway	"	Leg	"	"	"
87	1863	23	William A. Harvlo	" " of arm	Shoulder-joint	"	Died	Jan. 26, 1863
88	Jan.	22	William Connor	Frost-bite (foot)	Leg	.....	Cured	June 2, 1863
89	Feb.	12	James Duen	Compound comminuted fracture of leg	Leg	Immediate	Died	March 3, 1863
90	"	21	Charles C. Laws	Mortified foot (frost-bite)	Leg	.....	"	April 28, 1863
91	"	20	William Drowers	Deformed foot	Foot (Pirogoff)	.....	Cured	May 25, 1863
92	March	3	Jacob Swope	Sloughing after lacerated foot	Foot (Pirogoff)	.....	"	July 27, 1863
93	"	43	William J. Walton	Crushed hand	Wrist-joint	Immediate	"	May 11, 1863
94	"	17	Joseph Bowers	Lacerated hand and wrist	Forearm	"	Died	April 18, 1863
95	"	20	John Fritz	Compound comminuted fracture of fibula	Leg	"	"	April 18, 1863
96	"	23	Adam Bourker	Compound fracture of humerus	Arm	.....	Cured	May 2, 1863
97	April	23	William Duan	Lacerated hand and wrist	Forearm	Immediate	"	May 25, 1863
98	"	25	John Hargrave	Lacerated hand	Forearm	"	"	July 9, 1863
99	May	5	Daniel Coleman	Comp. comminuted fract. of radius and ulna	Arm, upper third	"	"	Aug. 3, 1863
100	"	7	William Mattock	Crushed foot	Leg, upper third	"	Died	May 21, 1863

No.	Admission.	Name.	Age.	Disease or Injury.	Part amputated.	Immediate or otherwise.	Result.	Period of discharge or death.
100	1863	William Tothoroh	13	Crushed elbow	Arm	Immediate	Cured	July 27, 1863
101	May 21	William Webster	23	" femur (middle)	Thigh	"	Died	June 1, 1863
102	" 29	Michael Ryan	16	Compound fracture of ankle-joint	Leg	"	Cured	Sept. 8, 1863
103	June 6	Patrick Connor	37	" " of leg	Leg	"	"	Oct. 8, 1863
104	" 13	Jos. F. Hephner	8	Compound fracture of radius and tibia, upper third	Knee-joint	"	Died	July 28, 1863
105	" 27							
106	July 11	Patrick Doyle	14	Compound fracture of os calcis	Leg	"	Cured	Oct. 15, 1863
107	" 14	Wesley Earley	14	Crushed leg	Thigh	"	"	July 28, 1863
108	" 18	James Maxwell	10	" foot	Foot (Pirogoff)	"	"	Dec. 24, 1863
109	" 18	"	10	" hand	Forearm	"	"	Dec. 24, 1863
110	" 20	Fred. Oobden	38	Compound fracture of leg	Thigh	"	Died	July 30, 1863
111	" 30	John Woolsey	16	" " of hand	Hand	"	Cured	July 31, 1863
112	Aug. 1	Patrick Curran	22	" " of arm	Arm	"	"	Oct. 3, 1863
113	" 16	Morris Luncey	12	" " of foot	Leg	"	"	Nov. 21, 1863
114	" 16	Patrick Dennohy	53	" " of foot	Foot (Chopart)	"	Died	Aug. 23, 1863
115	" 21	Thomas Singer	32	" " of hand	Forearm	"	Cured	Oct. 24, 1863
116	" 31	Peter Robinson	14	Comp. comm. fract. of radius and ulna	Forearm	"	"	Oct. 5, 1863
117	Sept. 8	John W'iso	27	" " of leg	Arm	"	Died	Sept. 4, 1863
118	" 19	Charles Higgins	15	" " of leg	Leg	"	Cured	Jan. 26, 1864
119					Knee-joint (patella lost in)	"	"	Dec. 16, 1863
120	Oct. 16	Henry Chamberlain	10	" " of leg	Leg, middle	"	"	Nov. 30, 1863
121	" 24	John Darnet	33	Gunshot wound of hand	Hand	"	"	Dec. 26, 1863
122	Dec. 20	Michael Hurley	45	Crushed hand	Forearm	"	"	Feb. 6, 1864
123	1864							
124	Jan. 18	William Burran	26	Crushed arm	Arm	"	Died	April 6, 1864
125	" 6	James Patterson	12	" "	Arm	"	Cured	June 26, 1864
126	Feb. 17	Charles Leaf	38	Compound comminuted fracture of ankle	Leg	"	Died	March 27, 1864
127	" 23	Jos. Elliott	36	" "	Leg	"	"	Feb. 28, 1864
128	" 23	Francis Markey	13	Concussion of brain, comp. fract. of foot	Foot (Pirogoff)	"	Cured	July 14, 1864
129	March 15	David Kerr	48	Crushed forearm	Arm	"	"	April 23, 1864
130	" 26	William Worrell	32	" "	Leg	Immediate	Died	April 36, 1864
131	April 11	Bernard Mooney	28	Abscess of leg, necrosis	Thigh	"	Cured	Aug. 4, 1864
132	" 19	George Oeiger	6	Compound comminuted fracture of femur	Thigh, middle	"	"	June 6, 1864
133	" 20	Thomas Saunders	6	do do	Hip-joint	Immediate	Died	April 21, 1864

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No.	Admission.	Name.	Age.	Disease or Injury.	Part amputated.	Immediate or otherwise.	Result.	Period of discharge or death.
132	1864	Benjamin Emory	81	Crushed forearm	Forearm	Immediate	Died	May 22, 1864
133	April 26	Joseph Troester	45	Lacerated hand	Hand	"	Cured	June 18, 1864
134	"	W. J. Kolbel	13	Loss of hand	Arm	"	"	July 14, 1864
135	May 2	Fred. Cook	17	Lacerated arm	Arm	"	Died	May 20, 1864
136	"	Ed. Gallen	34	Crushed leg	Leg, upper third	"	"	May 30, 1864
137	"	Elis. Springer	13	Compound fracture and luxation of knee-joint	Thigh	.....	"	June 21, 1864
138	"	Isaac D. Leech	23	Compound fracture of arm	Arm	Immediate	"	June 16, 1864
139	"	Barbara Waldburger	57	Carles of tarsus	Foot (Pirogoff)	.....	"	June 21, 1864
140	"	Samuel Harmer	17	Leg crushed, compound comminuted fract.	Knee-joint	Immediate	Cured	Aug. 25, 1864
141	"	Cath. McGrossen	35	Neurosis of tibia	Leg	.....	"	July 25, 1864
142	June 7	Jos. Ervin	15	"	Leg	"	"	Nov. 25, 1864
143	"	Jos. Malton	40	Leg crushed, compound comminuted fract.	Knee-joint	Immediate	Died	June 12, 1864
144	"	"	49	Leg crushed	Leg	"	"	Sept. 9, 1864
145	"	John William	5	Compound comminuted fract. of left foot	Foot (Pirogoff)	"	Cured	Sept. 6, 1864
146	"	"	5	" " of left leg	Leg	"	"	Sept. 9, 1864
147	"	"	32	Abscess of wrist-joint (following a felon)	Forearm	.....	"	Sept. 29, 1864
148	"	Michael Shields	9	Lacerated leg	Leg	Immediato	Died	July 9, 1864
149	"	John Boyce	68	Crushed leg	Thigh	"	"	Aug. 10, 1864
150	July 20	James Finley	12	Lacerated wound of hand	Hand	"	Cured	Oct. 31, 1864
151	Aug. 23	Nancy Ineh	44	Compound luxation of ankle	Leg	"	"	Sept. 20, 1864
152	"	Patrick Mulligan	12	Compound fracture of arm	Arm	"	"	Sept. 19, 1864
153	"	James Hagan	3	Lacerated wound of arm	Arm	"	Died	Oct. 22, 1864
154	Oct. 14	W. J. Hamilton	9	Crushed foot	Foot	"	"	Oct. 22, 1864
155	"	"	9	"	Foot	"	"	Oct. 22, 1864
156	"	Michael Gormley	35	Crushed foot	Forearm, lower third	"	Cured	Nov. 14, 1864
157	"	William Davis	49	"	Forearm	"	Died	Dec. 31, 1864
158	"	Francis King	25	Gunshot wound of hand	Forearm	"	Cured	Feb. 19, 1865
159	"	Jos. Fox	27	Crushed leg	Leg	"	"	March 9, 1865
160	Nov. 20	James Ferguson	27	Dislocation of knee-joint	Thigh	"	"	Jan. 31, 1865
161	Dec. 7	Dernard Kerlin	24	Compound fracture of thigh	Thigh	"	"	April 3, 1865
162	"	John Maloy	35	Crushed leg	Leg	"	"	June 20, 1866
163	"	"	35	Uleer of stump	Knee-joint	.....	"	June 26, 1866
164	1865	Thomas Duffy	12	Crushed foot	Leg (Teale)	Immediate	"	April 21, 1865
165	Jan. 27	L. Knoop	35	Compound comminuted fracture of leg	Leg (Teale)	"	Cured	May 4, 1865

No.	Admission.	Name.	Age	Disease or Injury.	Part amputated.	Immediate or otherwise.	Result.	Period of discharge or death.
106	1865 Feb. 25	John R. Gathen	36	Compound comminuted fracture of leg	Leg	Immediate	Died	March 11, 1865
107	March 7	Daniel Saddler	22	Anchylosis of arm	Arm	.....	Cured	April 14, 1865
108	" 22	Rohard Welsh	14	Crushed hand	Hand	Immediate	"	April 26, 1865
109	April 4	John Mullin	23	Gangrene of foot	Leg	.....	"	July 10, 1865
176	" 5	Max. Reeko	57	Compound comminuted fracture of arm	Arm	Immediate	"	June 1, 1865
171	" 17	Thomas Coruam	23	Compound fracture of leg	Leg	"	"	April 21, 1865
172	" 18	Thomas Reibner	6	"	Leg	"	"	May 23, 1865
173	" 25	Maggie Kelly	11	Compound fracture of tibia and fibula	Leg	"	"	May 4, 1865
174	June 25	Samuel Danielly	33	comminuted fracture of arm	Arm	"	"	Aug. 2, 1865
175	" 26	William Daird	10	fracture of foot	Leg	"	"	Aug. 28, 1865
176	July 4	Benjamin A. Stone	27	comminuted fracture of arm	Arm	"	"	Aug. 16, 1865
177	" 6	N. Gallagher	10	"	Hand	"	"	Aug. 16, 1865
178	" 6	Benjamin Hopkins	18	"	Hand	"	"	Aug. 16, 1865
179	" 20	John S. Carman	24	Synovitis of ankle	Leg	.....	"	July 21, 1865
180	" 21	Valentine Vogel	45	Compound comminuted fracture of carpus	Forearm	Immediate	"	Sept. 14, 1865
181	" 25	Martha J. Reed	28	Ectoplasmic disease of thigh	Hip-joint	.....	"	Sept. 14, 1865
182	Aug. 5	Henry Ford	12	Compound luxation of knee-joint	Thigh	Immediate	"	July 25, 1865
183	" 36	Samuel Bell	36	Mortified leg (froethite)	Leg	.....	"	Aug. 26, 1865
184	" 32	Charles Miller	32	Crushed foot	Foot	.....	"	Oct. 30, 1865
185	Sept. 10	James McHale	35	Neurosis of humerus	Arm	.....	"	March 27, 1866
186	" 25	Francis Carlin	6	Lacerated foot	Foot (Pirogoff)	.....	"	Oct. 9, 1865
187	Oct. 12	John McCollum	21	Neuregia of stump	Leg	.....	"	Feb. 13, 1866
188	" 17	Andrew C. Swopo	21	Ulcer of stump after leg amputation	Leg	.....	"	Nov. 25, 1865
189	" 18	Aug. Lively	21	Lacerated hand	Hand	.....	"	Nov. 27, 1865
190	Nov. 13	W. Foster	6	"	Hand, partial	.....	"	March 5, 1866
191	" 17	John A. Ross	17	Compound dislocation of knee with fracture	Hand, partial	.....	"	Dec. 22, 1865
192	" 21	Ezekiel Davis	31	Wound of knee-joint (gunshot)	Thigh	"	"	Dec. 8, 1865
193	Dec. 5	Robert Reed Palmer	6	Suppuration of elbow-joint	Thigh	"	"	Dec. 8, 1865
194	" 7	John McGee	14	Lacerated hand (gunshot)	Arm	.....	"	Dec. 22, 1865
195	1866 Jan. 11	Charles Dower	23	Leg crushed	Forearm	Immediate	"	Dec. 31, 1865
196	" 15	Charles Lynell	26	Ulcer of foot	Leg (Pirogoff)	.....	"	April 10, 1866
197	" 22	Ellen Burke	21	Lacerated hand	Hand	.....	"	June 11, 1866
198	" 23	Ed. D. Ulmer	23	Neurosis of femur	Hip-joint	.....	"	March 22, 1866
199	Feb. 24	Dernard Coyle	30	Enchondroma of elbow-joint	Arm	.....	"	March 27, 1866

No.	Admission.	Nmo.	Age	Disease or Injury.	Part amputated.	Immediate or otherwise.	Result.	Period of discharge or death.
200	1800							
201	March 16	William Mullin	24	Crushed arm	Arm	Immediate	Cured	May 14, 1800
	" 17	Hugh Wiley	31	Compound comminuted fracture of tibia and fibula	Knee-joint	"	"	May 28, 1800
202	" 16	Ed. Steward	16	Compound comminuted fracture of foot	Knee-joint	"	"	Nov. 5, 1800
203	April 9	Marg't McCausland	36	Kneoplaitoid disease of leg	Knee-joint	.....	Died	May 11, 1800
204	" 9	James McGeehan	48	Necrosis of femur after gunshot wound	Hip-joint	.....	"	May 3, 1800
205	" 18	Samuel Coulston	52	Necrosis of femur after gunshot wound	Forearm	Immediate	Cured	May 15, 1800
206	" 28	Louis Nagel	23	Compound comminuted fracture of carpus	Forearm	"	Died	May 7, 1800
207	May 5	John Marley	46	" " " " " " " "	Knee-joint	"	Cured	Aug. 2, 1800
208	" 10	William Wiley	25	" " " " " " " "	Forearm	"	"	Aug. 25, 1800
209	" 26	A. Syd. Smith	45	Irritable stump	Arm	.....	"	June 6, 1800
210	" 26	Henry Lowe	10	Compound comminuted fracture of radius and ulna	Forearm	Immediate	Died	June 17, 1800
211	June 5	Charles Brown	25	Serofulous disease of ankle	Leg	.....	Cured	July 30, 1800
212	" 14	Charles Callaghan	46	Compound comminuted fracture of leg	Leg	Immediate	Died	July 8, 1800
213	" 14	John McAuley	22	Necrosis of ulna	Forearm	.....	Cured	Oct. 1, 1800
214	July 10	Mich'l W. Brannon	20	Compound comminuted fracture of arm	Arm	Immediate	"	Sept. 4, 1800
215	" 25	Thomas Gorman	12	Lacerated forearm	Forearm	"	"	Sept. 19, 1800
216	" 2	John Drum	35	Compound fracture of forearm	Arm	"	Died	Aug. 8, 1800
217	Aug. 6	Henry Schinger	21	Crushed arm and shoulder	Shoulder-joint and portion of scapula	"	Cured	Sept. 25, 1800
218	" 7	George W. Jacobs	28	Lacerated arm	Arm, upper third	"	Died	Aug. 18, 1800
219	" 21	Anna Maria Haynes	36	Ulcer of thigh	Thigh	.....	Cured	Oct. 16, 1800
220	" 23	James Lovell	32	Crushed tarsus	Foot	Immediate	"	Oct. 22, 1800
221	" 25	Ed. Porter	58	" " leg	Leg	"	"	Sept. 12, 1800
222	" 27	Charles D. Griffith	23	Compound comminuted fract. of humerus	Arm	"	Died	Oct. 3, 1800
223	" 27	H. Pierce	48	Caries of wrist	Forearm	.....	"	Sept. 13, 1800
224	Sept. 4	George Foxhall	26	Compound comminuted fracture of arm	Arm	Immediate	Cured	Sept. 28, 1800
225	" 5	Daniel Cannon	15	Compound comminuted fracture of ulna and hand	Arm	"	"	Oct. 22, 1800
226	" 12	Lewis Ashton	26	Compound comminuted fracture of arm and forearm	Arm	"	Died	Sept. 25, 1800
227	" 14	James Taylor	19	Deformity of hand	Forearm	Cured	Oct. 15, 1800

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228	1866	J. A. Woodside	23	Crushed foot	Leg	Immediate	Died	Oct. 24, 1866
229	Sept.	John Reddy	18	Lacerated forearm	Forearm	"	Cured	Nov. 26, 1867
230	Oct.	John Wenne	22	Crushed forearm	Arm	.....	Died	Nov. 16, 1866
231	"	F. McKeon	22	Axillary aneurism, subclavian ligated	Shoulder-joint	.....	Cured	March 9, 1867
232	Nov.	Thomas Casenden	51	Compound fracture of forearm	Arm	Immediate	"	Nov. 20, 1866
233	"	William Alcorn	63	Compound comminuted fracture of arm	Arm	"	Died	Dec. 3, 1866
234	"	John Maguire	45	" fracture of leg	Leg	"	Cured	Jan. 6, 1867
235	"	William Koefe	14	Gunshot wound of hand	Forearm	"	"	Dec. 16, 1866
236	Dec.	William Watkins	32	Lacerated hand	Hand	"	"	Feb. 1, 1867
237	1867	I Hugh Sweeney	10	Compound comminuted fracture of leg	Leg	"	"	Aug. 27, 1867
238	Jen.	"	24	Ulcer of stump	Leg	.....	"	July 16, 1867
239	"	Dennis Gallagher	23	Compound fracture of ankle	Foot (Pirgoff)	Immediate	"	June 6, 1867
240	April	A. L. Cloud	5	" of leg	Leg	"	Died	July 1, 1867
241	"	James Dunn	22	" of leg	Knee-joint	.....	Cured	Aug. 14, 1867
242	"	D. T. Banks	10	Gangrene following frostbite	Leg	"	"	Aug. 14, 1867
243	"	"	10	"	Leg	.....	"	July 6, 1867
244	May	John Wolte	24	Crushed arm	Arm	Immediate	"	June 26, 1867
245	"	H. A. De-nuth	7	Lacerated hand	Forearm	"	Died	June 36, 1867
246	June	John Dady	26	Compound fracture of leg	Leg	"	Cured	Oct. 6, 1867
247	"	William Walters	20	"	Leg	"	Died	July 1, 1867
248	"	W. G. Dally	21	"	Leg	"	"	July 21, 1867
249	July	P. Fonney	56	"	Leg	"	Cured	Oct. 16, 1867
250	"	Henry Potts	10	" dislocation of ankle	Leg	"	"	Sept. 14, 1867
251	"	Peter Yeung	12	" fracture of femur	Thigh	"	Died	Sept. 14, 1867
252	Aug.	John E. Evans	34	" dislocation of ankle	Leg	"	"	Aug. 24, 1867
253	"	Charles Wilkins	23	Crushed knee-joint	Thigh	"	Cured	Oct. 11, 1867
254	Sept.	H. Stark	14	" forearm	Forearm	"	"	Dec. 30, 1867
255	"	William H. Duck	42	" leg	Leg	.....	"	Jan. 6, 1867
256	Oct.	Samuel Bronson	12	Extensive ulcer of arm (from burns)	Shoulder-joint	Immediate	"	Nov. 23, 1868
257	"	Th. Mulligan	22	Compound fracture of leg	Knee-joint	"	"	Dec. 12, 1867
258	Nov.	Richard Jeffries	38	" of hand	Forearm	"	"	Dec. 12, 1867
259	"	Thomas Heckler	27	"	Forearm	"	"	Dec. 12, 1867

No.	Admission.	Name.	Age.	Disease or injury.	Part amputated.	Immediate or otherwise.	Result.	Period of discharge or death.
260	1898	E. M. Kerr	59	Crushed thigh	Thigh	Immolate	Cured	April 26, 1898
261	Feb. 27	Daniel Doyle	21	" foot and ankle	Leg	"	"	April 6, 1899
262	April 29	Evan Thomas	8	" foot	Foot (Pirogoff)	"	"	Aug. 5, 1898
263	May 2	Charles Ross	19	Gangrene following frost-bite	Leg	.....	Died	Nov. 28, 1898
264	" 2	"	18	"	Leg	.....	"	Nov. 26, 1898
265	" 16	W. G. Wiggins	23	Crushed arm	Arm	Immolate	Cured	June 1, 1898
266	June 4	James McEndlin	33	Neurosed ankle	Leg	.....	"	Oct. 16, 1898
267	" 17	John Hollywood	39	Crushed foot and ankle	Leg	Immolate	"	Aug. 25, 1898
268	" 20	H. Baumgarten	6	" leg	Knee-joint	"	"	Oct. 5, 1898
269	July 3	Gustav Forber	29	" foot	Leg	"	"	Oct. 25, 1898
270	Aug. 6	H. Hlot	29	" arm	Arm	"	"	Aug. 27, 1898
271	" 6	Patrick Keshan	38	Compound fracture of leg	Leg	"	"	Nov. 4, 1898
272	" 12	George Irnkley	39	Crushed tarsus	Knee-joint	.....	Bled	Aug. 31, 1898
273	" 26	John Boyle	21	Excephitoid of leg	Thigh	Immolate	Cured	Dec. 6, 1898
274	Sept. 19	W. Steward	13	Crushed leg and knee	Forearm	.....	"	Oct. 23, 1898
275	" 12	H. B. Neumeo	25	Gangrene (crushed hand)	Shoulder-joint	Immolate	"	Sept. 21, 1898
276	" 21	William Doran	37	Compound comminuted fracture of arm	Thigh	.....	Died	Oct. 2, 1898
277	Oct. 9	James Elliott	23	Exostosis en femur	Knee-joint	Immolate	Cured	Jan. 29, 1899
278	" 6	John Harland	79	Crushed leg	Forearm	"	Died	Oct. 19, 1898
279	" 13	Robert Timbers	39	" hand	Thigh	.....	Died	Oct. 26, 1898
280	" 16	James Shields	49	Necrosis of femur	Knee-joint	.....	Died	Nov. 16, 1898
281	Nov. 4	John Hollywood	39	Osteomyelitic following compound fracture	Wrist-joint	Immolate	Cured	Feb. 8, 1899
282	" 18	Sarah McDewitt	13	Lacerated hand	Knee-joint	.....	Died	Dec. 11, 1898
283	Dec. 5	William McNeel	32	Crushed leg	Arm	.....	Died	Jan. 22, 1899
284	" 24	H. Keynard	95	" forearm	Arm	Immolate	"	Jan. 31, 1899
285	1899	Walter Brough	39	Irritable stump	Arm	.....	Cured	Feb. 15, 1899
286	Jan. 11	Ellen Murray	14	Lacerated hand	Hand	Immolate	"	Feb. 29, 1899
287	Feb. 12	Demalek Wunsch	24	Compound comminuted fracture of arm	Forearm	"	"	March 16, 1899
288	" 19	Israel Fisher	29	Necrosis of corpus	Forearm	.....	"	July 6, 1899
289	" 29	John Coyle	15	Crushed arm	Shoulder-joint	.....	"	May 17, 1899
290	" 27	Thomas W. Davis	16	" head	Forearm	Immolate	"	March 15, 1899
291	March 8	Fred. Arnold	29	Lacerated hand	Forearm	"	"	May 10, 1899
292	April 1	Christ. Bott.	42	Compound fracture of foot	Foot (Syme)	"	"	June 21, 1899

No.	Admission.	Name.	Age.	Disease or injury.	Port amputated.	Immediate or otherwise.	Result.	Period of discharge or death.
293	1869	Abigail Dundy	59	Ulcer of the leg	Leg	.....	Died	May 26, 1869
294	April	Th. Davis	19	Ulcer of stump	Forearm	.....	Cured	May 17, 1869
295	May	George W. Stiley	19	Crushed leg	Knee-joint	Immediate	Died	May 27, 1869
296	"	Arch. Glandling	28	Crushed foot	Foot (Chopart)	"	Cured	July 20, 1869
297	June	Ed. Morrow	22	Rheumatoid tibia	Thigh	.....	"	Jan. 20, 1879
298	"	Th. Riley	45	Crushed foot	Foot (Lisfranc)	Immediate	Died	June 19, 1869
299	"	John McInnis	59	" leg	Leg (Teale)	"	"	June 20, 1869
300	"	M. Moore	32	Lacerated wound of hand	Forearm	"	Cured	July 21, 1869
301	July	J. P. Deputy	38	Compound comminuted fracture of leg	Knee-joint (after transfusion)	.....	Died	July 19, 1869
302	"	David Gibson	38	" forearm	Forearm (Teale)	Immediate	Cured	Aug. 14, 1869
303	"	John White	9	" leg	Knee-joint	"	"	Nov. 3, 1869
304	Aug.	John Boyce	12	" hand	Elbow-joint	"	"	Sept. 14, 1869
305	"	George Connolly	8	Compound comminuted fracture of leg	Leg	"	"	Dec. 20, 1869
306	"	James Johnson	10	" " of leg	Leg	"	Died	Sept. 18, 1869
307	"	John Collins	8	" " of foot	Leg	"	Cured	Sept. 9, 1869
308	"	Philip McMan	12	" " of ankle	Leg	"	"	Nov. 19, 1869
309	"	Joseph McAdams	12	" " of foot	Foot (Pirogoff)	"	"	Nov. 9, 1869
310	"	M. Croig	24	Compound luxation at knee-joint, rupture popliteal artery, followed by tetanus	Knee-joint	.....	"	Nov. 19, 1869
311	Sept.	I. F. R. Smith	29	Crushed foot	Foot (Key)	Immediate	Died	April 18, 1869
312	"	H. Kelloy	13	" "	Foot (Pirogoff)	"	Cured	Dec. 31, 1869
313	"	W. J. Mitchell	15	Compound comminuted fracture of leg	Knee-joint	"	"	Nov. 29, 1869
314	"	Mich. Trainer	59	" " of ankle	Leg	"	"	Dec. 28, 1869
315	"	Charles Femple	9	Crushed hand	Elbow-joint	"	"	Sept. 25, 1869
316	Oct.	James Menly	39	" arm	Arm	"	"	Nov. 4, 1869
317	"	W. W. Snyder	22	" hand	Forearm (Teale)	"	Dy request	Oct. 28, 1869
318	"	Thomas Davis	39	Fracture of tibia	Foot	"	Cured	Jan. 27, 1879
319	Nov.	Sarah A. Wilson	34	Neurotic onklo	Leg	.....	"	March 29, 1879
320	Dec.	Charles Levensberry	31	Chronic synovitis	Thigh	.....	Died	Jan. 15, 1879
321	"	Samuel Wiley	21	Popliteal tumour, fibroid	Thigh	.....	Cured	March 24, 1879

From January 1, 1860, to January 1, 1870, 321 major amputations were performed at the Pennsylvania Hospital upon 311 patients.

Of this number 227 were cured, and 83 died, and 1 removed.

Of 29 thigh amputations 17 were cured, and 12 died.

" 5 hip-joint	"	2	"	"	3	"
" 22 knee-joint	"	12	"	"	10	"
" 102 leg	"	70	"	"	32	"
" 30 foot and ankle	"	22	"	"	8	"
" 10 shoulder-joint	"	7	"	"	3	"
" 50 arm	"	34	"	"	16	"
" 2 elbow-joint	"	2	"	"		"
" 48 forearm	"	42	"	"	5	"

1 removed by request.

" 23 wrist and partial of hand amputations 23 were cured.

Of the 321 amputations 239 were primary; of these 176 were cured, 63 died; 22 were secondary operations, of these 11 were cured, and 11 died; 60 were amputations for chronic diseases, of these 51 were cured, and 9 died.

61 amputations were done at the joints; of these 44 were cured, and 17 died.

134 were amputations of the upper extremities; of these 111 were cured, and 23 died.

187 were amputations of the lower extremities; of these 124 were cured, and 63 died.

114 patients were under 20 years of age; of these 98 were cured, and 16 died.

84 patients were between 20 and 30; of these 63 were cured, and 21 died.

65 " " " 30 " 40; " 45 " " " 20 "

25 " " " 40 " 50; " 16 " " " 9 "

23 " " above 50 years of age; 7 " " " 16 "

Adding these results to the statistics of amputations performed at the hospital during the previous thirty years, published by Dr. Norris (and to whom I am indebted for notes of several of the years), we find that in 749 amputations, upon 735 patients, performed during the forty years from 1830 to 1870, 548 were cured, and 186 died, and 1 removed.

500 were primary operations, performed during the first twenty-four hours after receipt of the accident, of which 117 died; 105 were secondary, of which 42 died; 144 were for diseases of a chronic character, of which 27 died.

232 of the patients were under 20 years of age, of whom 206 were cured, and 26 died; 217 were between 20 and 30, of whom 164 were cured, and 53 died; 152 were between 30 and 40, of whom 105 were cured, and 47 died; 87 were between 40 and 50, of whom 56 were cured,

and 31 died; 44 were upwards of 50, of whom 23 were enred, and 21 died.

Ether has been almost invariably used as the anæsthetic, and no death has, I believe, ever occurred in the hospital from its use; occasionally ether has been combined with chloroform, one sudden death (Case 165), however, occurred with the use of this mixture, during the removal of a fragment of accreted bone following a leg amputation; the nitrous oxide gas I have used in very many minor operations, and in eight amputations of limbs, and have found it satisfactory when the operation was not prolonged.

ART. II.—On the "Synelitim" of the Fœtal Head in Natural Labour.

By HUGH L. HODGE, M. D., Emeritus Professor of Obstetrics and Diseases of Women and Children in the University of Pennsylvania. (With two wood-cuts.)

THE number of the *Edinburgh Medical Journal* for June last contains some critical remarks by Dr. J. Matthews Duncan, on what M. Kuenke terms the synelitic movement of the fœtal head during its descent through the cavity of the pelvis and vagina, in natural labour. Not having seen M. Koenke's work, my only knowledge of his views of the mechanism of labour is derived from Dr. Dunn's paper, and I am, therefore, unable to express any opinion as to how far these views may be consistent with the idea of the synelitic movement of the head, or to what extent he is amenable to criticism.

The whole subject, however, is most interesting and important, and its practical value can hardly be estimated. This circumstance, with a sincere desire of having this subject fully examined, induces me to offer to the consideration of the profession my views in regard to it.

In all such scientific discussions it is very difficult to express our ideas with so much precision as to be clearly understood. Hence differences of opinion are often more apparent than real, a little explanation often resolving the difficulty. Perhaps, therefore, the theory of M. Koenke may be reconcilable to correct views upon the mechanism of labour.

Synelitim, or parallelism of the plane of the child's head, in cases of natural presentation, to the planes of the pelvis and of the vagina, is one of my favourite doctrines, and has been taught by me with more or less fulness and precision, since the year 1832. My confidence in its truth has been continually strengthened by careful observation, and the ideas I entertain in regard to it are detailed at length, and to a considerable extent illustrated, in my work on the *Principles and Practice of Obstetrics*.