

A treatise on the diseases of children : and management of infants from the birth / by Michael Underwood, M.D. ; three volumes in one.

Contributors

Underwood, Michael, 1736-1820.
West, David, 1765-1810
Carlisle, David, 1771-1835
Henderson, Thomas, 1789-1854
Hall, John Charles, 1816-1876
National Library of Medicine (U.S.)

Publication/Creation

Boston : Published by David West ..., David Carlisle, printer, May, 1806.

Persistent URL

<https://wellcomecollection.org/works/jr8pydh9>

License and attribution

This material has been provided by This material has been provided by the National Library of Medicine (U.S.), through the Medical Heritage Library. The original may be consulted at the National Library of Medicine (U.S.) where the originals may be consulted.

This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>



B 2-3-6

G. No 6 1/2

Thomas Henderson,
WARRENTON,
FAUQUIER.

SURGEON GENERAL'S OFFICE
LIBRARY.

ANNEX
Section

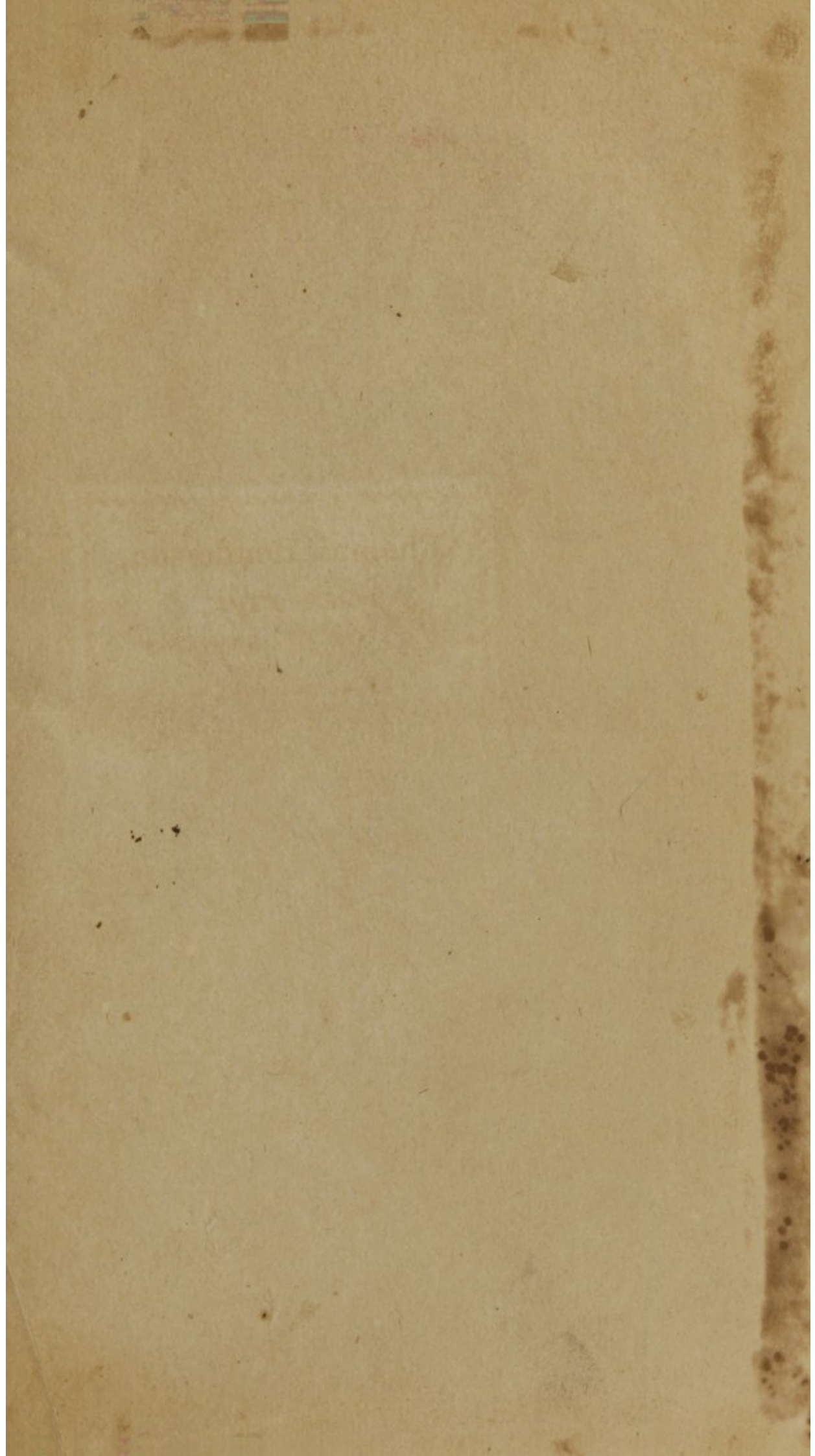
Children

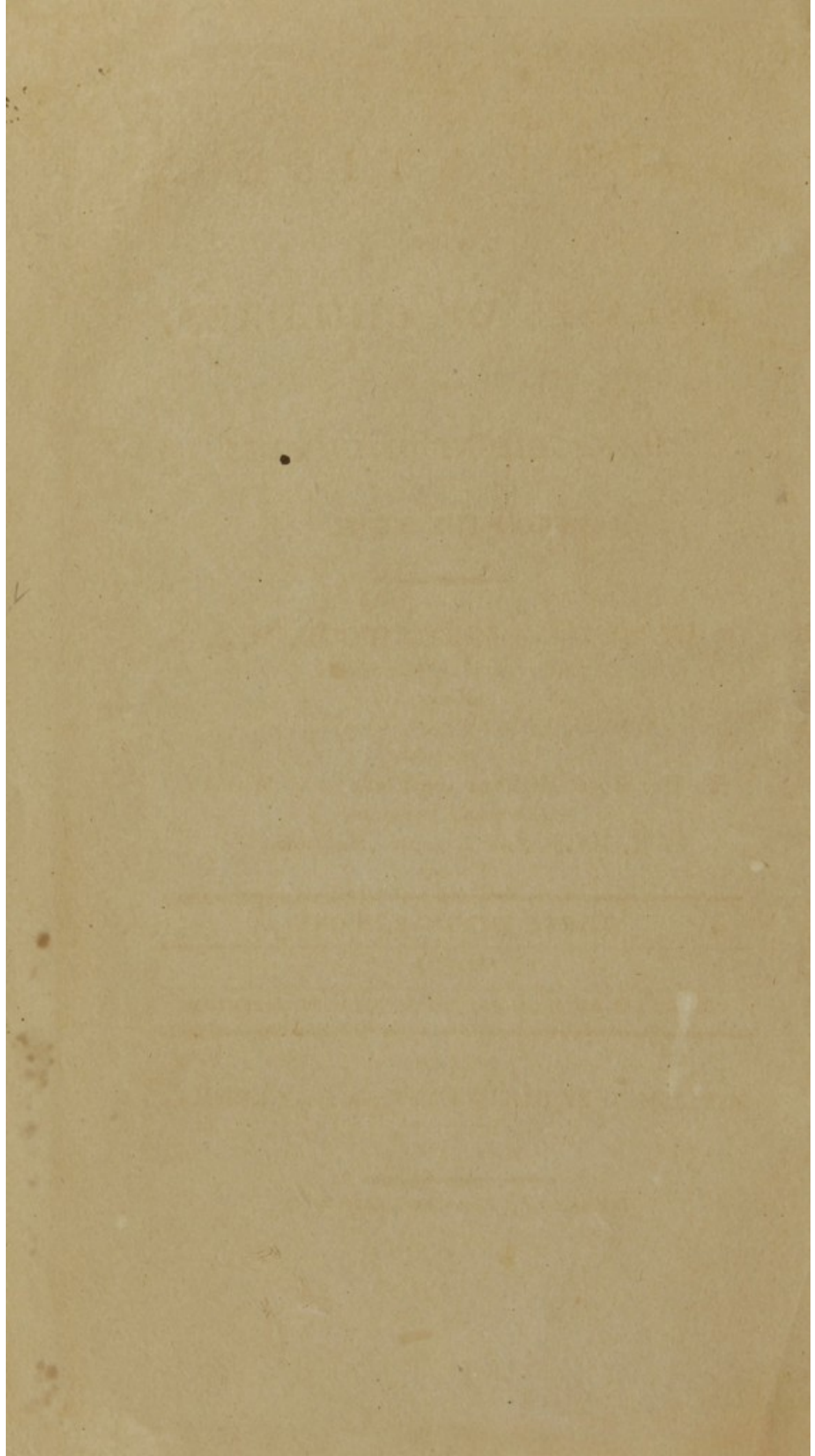
No. 113,
W. D. S. G. O.

No. 239411

3-513

53-1-1





The Henderson
J. C. Hall

A
T R E A T I S E

ON THE
DISEASES OF CHILDREN,
AND
MANAGEMENT OF INFANTS
FROM THE BIRTH.

BY MICHAEL UNDERWOOD, M. D.

LICENTIATE IN MIDWIFERY

OF THE

Royal College of Physicians in LONDON ;

PHYSICIAN

To Her Royal Highness the PRINCESS of WALES ;

And SENIOR PHYSICIAN

To the BRITISH LYING-IN HOSPITAL.

THREE VOLUMES IN ONE.

VOL. I.

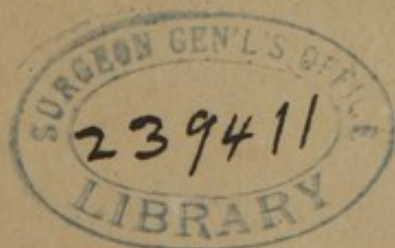
SECOND AMERICAN, FROM THE SIXTH LONDON EDITION.

BOSTON :

PUBLISHED BY DAVID WEST, No. 56, CORNHILL.

MAY, 1806.

DAVID CARLISLE, Printer, No. 5, Court Street.



Handwritten text at the top left, possibly a signature or date.

Faint handwritten text below the first line.

Handwritten text in the middle of the page, possibly a title or heading.

Handwritten text below the middle section.

Handwritten text below the middle section.

Handwritten text below the middle section.

Handwritten text below the middle section.

Handwritten text below the middle section.

Handwritten text in the lower middle section.

Handwritten text in the lower middle section.

Handwritten text in the lower middle section.

Handwritten text in the lower middle section.

Handwritten text in the lower middle section.

Handwritten text in the lower middle section.

Handwritten text in the lower middle section.

Handwritten text in the lower middle section.

Handwritten text in the lower middle section.

Handwritten text in the lower middle section.

Handwritten text in the lower middle section.

TO
HER ROYAL HIGHNESS
THE
PRINCESS OF WALES.

MADAM,

As I cannot be insensible to the Honour of being permitted, a second time, to dedicate to Your Royal Highness a Performance that has engaged much of my Time and Attention, I must congratulate myself that the Subject of it affords me another fit Opportunity of paying a small Tribute of Veneration for Your Royal Highness's parental Virtues, as well as my most humble Acknowledgements for the Favours conferred on me in a professional Character.

That Your Royal Highness and Your illustrious Offspring may long enjoy the Blessings of Health, in Addition to those of Rank and Station, is the sincere Prayer of,

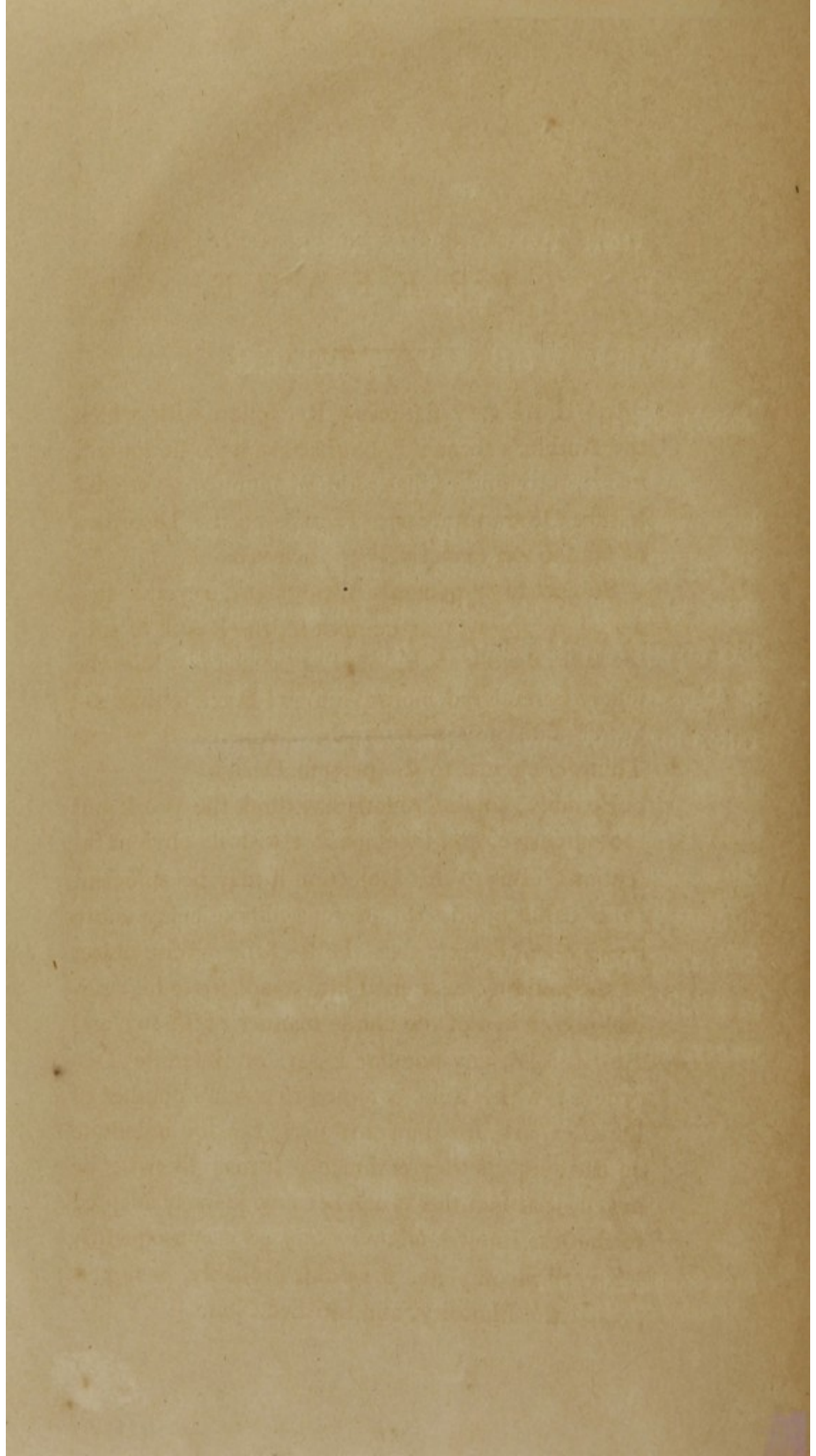
Your Royal Highness's

Most dutiful,

And most devoted Servant,

MICHAEL UNDERWOOD.

Great Marlborough Street,
October 31st, 1800,



P R E F A C E.

THE very flattering Reception with which the Author's former Labours have been honoured, in private Families, has induced him to devote his leisure Hours to adapt a Treatise on the Disorders of Childhood exclusively to their Use.

Subject to a general Abridgment, several incidental Additions may be noticed, the Result of subsequent Recollection, or Experience; while the whole is rendered more plain and familiar than the larger Editions, without the Suppression of any Thing congenial to the present Design.

Possibly, some Readers may think the Work still too extensive, and incompatible with its obvious intention. But to this Objection it may be sufficient to say, that besides the present edition being more concise and correct than the last, the precise object of the author constrained him to adhere to his original preference of the ample manner of TISSOT and BUCHAN, to any popular Essays on infantile Disorders; which alike confined to a small number of Diseases, are, for the more part, far too indefinite on the subjects they embrace. It may likewise be urged, that had the Work been exclusively adapted to the less Intelligent, and many parts consequently left very incomplete, it would, probably, have perplexed the Majority, and satisfied None.

To have passed over the Degrees and Varieties occurring in every Complaint, would, indeed, have fallen equally short of the original Design, as to have treated only on the Disorders of the *Infant-state*. An Abridgment like this would prove a great Disappointment, and neither qualify Parents to prescribe to Advantage, nor discover when to conclude that farther Assistance is required.

In any case, it is, perhaps, not possible to meet the Wishes of All; and the Author may venture to say, that his Intentions have been good. Encouraged, therefore, as he has been, by the Patronage of many Families, he takes this overt Occasion of repeating his grateful Acknowledgements; hoping he shall neither forfeit their, nor the Public's good Opinion by this renewed Attempt.

As some Apology, however, for the Imperfections of the present, it may be urged, that the unexpectedly rapid sale of the former Impression, has allowed the Author but little time to bestow upon this, which has been as repeatedly as speedily called for. The continual Occurrence likewise of some things before unknown to the Author, as well as of a few really new Diseases, or novel Forms in their Appearance, contribute to exact this hasty Tribute of Attention; which though precluded from minute Correction; which will it is hoped, otherwise offer some Amendment, while it marks his high obligations to Public Opinion.

CONTENTS.*

VOLUME FIRST.

| | PAGE |
|--|-------|
| <i>DEDICATION</i> - - - - - | iii |
| <i>PREFACE</i> - - - - - | v-vi |
| <i>Introductory Matter</i> - - - - - | 1 |
| <i>The Diseases of Infants are too much neglected</i> - | 2 |
| <i>Causes of this neglect</i> - - - - - | 2 |
| <i>Arguments against such neglect</i> - - - - - | 2-3 |
| <i>Their diseases easily understood</i> - - - - - | 3-4 |
| <i>Causes of infant diseases</i> - - - - - | 6-8 |
| <i>Symptoms, or marks, of their diseases</i> - - - - - | 9 |
| <i>Fainting</i> - - - - - | 9-10 |
| <i>Discolouration of New-born Infants</i> - - - - - | 10-12 |
| <i>Meconium, what?</i> - - - - - | 12 |
| <i>Retention of it an occasion of disease</i> - - - - - | 12 |
| <i>Of no use after birth</i> - - - - - | 13 |
| <i>Ought to be carried off early</i> - - - - - | 13 |
| <i>Proper remedies to expel it</i> - - - - - | 14-15 |
| <i>Sometimes long retained</i> - - - - - | 16 |
| <i>Regulation of the doses of medicines (Note)</i> - - - - - | 14-15 |
| <i>Infantile Jaundice</i> - - - - - | 16-18 |
| <i>Treatment</i> - - - - - | 17 |
| <i>Sometimes occasioned by Jaundiced-milk</i> - - - - - | 18 |
| <i>Infantile Erysipelas</i> - - - - - | 18-20 |
| <i>Appearances</i> - - - - - | 18-19 |
| <i>Remedies</i> - - - - - | 20 |
| <i>Morbid Snuffles</i> - - - - - | 20-24 |
| <i>Symptoms</i> - - - - - | 21-22 |
| <i>Treatment</i> - - - - - | 23-24 |

* See an *Alphabetical Index* to all the *Diseases*, at the end of this work.

| | PAGE |
|--|-------|
| <i>Inward Fits, what ?</i> | 25-29 |
| <i>Treatment</i> | 26-28 |
| <i>Costiveness and Wind</i> | 30-33 |
| <i>Treatment</i> | 30-32 |
| <i>Watching, or want of Sleep</i> | 33-34 |
| <i>Often improperly treated</i> | 34-35 |
| <i>Thrush</i> | 35-41 |
| <i>Appearance of it</i> | 36 |
| <i>Causes</i> | 38 |
| <i>Remedies</i> | 38-41 |
| <i>Gangrenous, or putrid Thrush</i> | 42-43 |
| <i>Eruptions on the Skin</i> | 43-57 |
| <i>Red-Gum</i> | 43-45 |
| <i>Crusta lactea, or milk-blotches</i> | 45-47 |
| <i>Tooth-Rash</i> | 47-51 |
| <i>Nettle Rash</i> | 51-52 |
| <i>Phlyctenæ, or Watery-Eruption</i> | 53-54 |
| <i>Grocer's Itch</i> | 54-57 |
| <i>Sore Ears</i> | 57-59 |
| <i>Vomiting</i> | 59-63 |
| <i>Not a common Disease of Infants</i> | 59 |
| <i>Milk returned curdled</i> | 60 |
| <i>Treatment</i> | 61-63 |
| <i>On Emetics</i> | 62-63 |
| <i>Inflammation of the Stomach</i> | 63-64 |
| <i>Symptoms</i> | 63 |
| <i>Treatment</i> | 64 |
| <i>Gripes</i> | 64-65 |
| <i>Purging</i> | 65-77 |
| <i>Cause</i> | 65 |
| <i>Kind of Stools</i> | 68 |
| <i>Watery Gripes</i> | 73-74 |
| <i>Treatment</i> | 65-77 |
| <i>Incontinence of Stools</i> | 77-78 |

| | PAGE |
|---|---------|
| <i>Worms</i> - - - | 78-84 |
| <i>Not usually dangerous</i> - | 79 |
| <i>Kinds</i> - - | 80 |
| <i>Symptoms</i> - - - | 80 |
| <i>Cause</i> - - - | 81 |
| <i>Treatment</i> - - | 81-84 |
| <i>Mad. Nouffer's remedy for the tape-worm</i> - | 84 |
| <i>Convulsions</i> - - - | 85-95 |
| <i>Of two kinds</i> - - | 85 |
| <i>Children oftener said to die of them than they really do</i> - - | 85 |
| <i>Causes</i> - - - | 86-87 |
| <i>Remarkable cases</i> - | 87-88 |
| <i>(The nine-days disease)</i> - | 88 |
| <i>Treatment</i> - - - | 89-95 |
| <i>Palsy</i> - - - | 96-98 |
| <i>Symptoms</i> - - - | 96 |
| <i>Treatment</i> - - - | 96-98 |
| <i>Skin-bound</i> - - - | 98-101 |
| <i>Symptoms</i> - - - | 99 |
| <i>Cause</i> - - - | 100 |
| <i>Treatment</i> - - - | 100-101 |
| <i>Account of this disease on the Continent</i> | 100-101 |
| <i>Tetanus, or Locked-Jaw</i> - - - | 101-102 |
| <i>Time of attack</i> - - - | 101 |
| <i>Description</i> - - - | 101 |
| <i>Cause</i> - - - | 102 |
| <i>Treatment</i> - - - | 102 |
| <i>Epileptic-Fits</i> - - - | 102-104 |
| <i>Cause</i> - - - | 103 |
| <i>Treatment</i> - - - | 103-104 |
| <i>St. Vitus's Dance</i> - - - | 104-105 |
| <i>Cause</i> - - - | 104 |

| | PAGE |
|---|---------|
| <i>St. Vitus's Dance—Appearances</i> - | 104 |
| <i>Treatment</i> - | 104-105 |
| <i>Temporary Loss of Speech</i> - | 105 |
| <i>Description</i> - | 105 |
| <i>Remedies</i> - | 105 |
| <i>Night-Mare</i> - | 106-107 |
| <i>Hiccough</i> - | 107-108 |
| <i>Sneezing</i> - | 108 |
| <i>Teething</i> - | 108-122 |
| <i>An important period in the Infant-state</i> | 109 |
| <i>Process of Dentition</i> - | 110-112 |
| <i>Symptoms</i> - | 112 |
| <i>Swelling of the tops of the hands and feet</i> | 109 |
| <i>Remedies</i> - | 113-122 |
| <i>The folly of Charms and Amulets</i> - | 117 |
| <i>Great advantage of lancing the gums</i> | 118 |
| <i>Fevers</i> - | 122-147 |
| <i>Infants not very subject to common Fevers</i> | 122 |
| <i>Causes of</i> - | 123 |
| <i>General treatment</i> - | 123-126 |
| <i>Fever from Cold</i> - | 123-126 |
| <i>Fever from foul Bowels</i> - | 126-131 |
| <i>Fever attended with Tumours or Boils</i> | 129-131 |
| <i>Wry-neck after Fever</i> - | 130-131 |
| <i>Remitted Fever</i> - | 131-132 |
| <i>Mesenteric Fever</i> - | 132-138 |
| <i>Symptoms</i> - | 134 |
| <i>Causes</i> - | 134 |
| <i>Preventives</i> - | 135 |
| <i>Treatment</i> - | 135-138 |
| <i>Hectic-Fever, and Decay</i> - | 138-141 |
| <i>Causes of</i> - | 139 |
| <i>Sometimes curable</i> - | 139 |

| | PAGE |
|--|---------|
| <i>Hectic Fever—Treatment</i> - - | 141 |
| <i>Scarlet-Fever, and ulcerated Sore-Throat</i> | 142-145 |
| <i>Symptoms</i> - - | 142-143 |
| <i>Treatment</i> - - | 143-145 |
| <i>Miliary-Fever</i> - - | 145-147 |
| <i>Symptoms</i> - - | 146 |
| <i>Treatment</i> - - | 146-147 |
| <i>Mumps</i> - - | 147-149 |
| <i>Symptoms</i> - - | 148 |
| <i>Treatment</i> - - | 148-149 |
| <i>Watery-head</i> - - | 149-156 |
| <i>External</i> - - | 149-150 |
| <i>Internal</i> - - | 150-156 |
| <i>Causes and Symptoms</i> - | 151-153 |
| <i>Treatment</i> - - | 153-156 |
| <i>Preventives</i> - - | 156 |
| <i>General Observations on the Small-pox and Measles</i> | 156-160 |
| <i>Inoculation</i> - - | 160-163 |
| <i>Suitable age and circumstances</i> - | 162 |
| <i>Cautions in regard to pregnant women</i> | 163 |
| <i>Vaccine-inoculation, or the Cow-pox</i> - | 163-168 |
| <i>Its great advantages</i> - | 164-167 |
| <i>See Appendix</i> - - | 209-210 |
| <i>Chicken-pox, and Swine-pox</i> - - | 168-169 |
| <i>How distinguished from the Small-pox</i> | 169 |
| <i>Ague</i> - - | 169-173 |
| <i>Symptoms</i> - - | 170 |
| <i>(Ague-cake)</i> - - | 170 |
| <i>Treatment</i> - - | 170-173 |
| <i>General Observations on Coughs</i> - | 174-175 |
| <i>Hooping-Cough</i> - - | 175-184 |
| <i>Highly infectious</i> - - | 176 |
| <i>Symptoms</i> - - | 176-177 |
| <i>Treatment</i> - - | 177-184 |

| | | | PAGE |
|---------------------------------|---|---|---------|
| <i>Spasmodic-Cough</i> | - | - | 184-185 |
| <i>Description</i> | - | - | 184 |
| <i>Remedies</i> | - | - | 185 |
| <i>Croup</i> | - | - | 185-190 |
| <i>Causes</i> | - | - | 186 |
| <i>Means of Prevention</i> | - | - | 186 |
| <i>Symptoms</i> | - | - | 186-187 |
| <i>Nature</i> | - | - | 187 |
| <i>Of two kinds</i> | - | - | 186 |
| <i>Spasmodic</i> | - | - | 187 |
| <i>Acute</i> | - | - | 188 |
| <i>Treatment</i> | - | - | 188-190 |
| <i>Rickets</i> | - | - | 190-193 |
| <i>Cause</i> | - | - | 190 |
| <i>Symptoms</i> | - | - | 190-191 |
| <i>Treatment</i> | - | - | 191-193 |
| <i>Scrofula, or King's-Evil</i> | - | - | 193-197 |
| <i>Cause</i> | - | - | 194 |
| <i>Treatment</i> | - | - | 194-197 |
| <i>Pain in making Water</i> | - | - | 198 |
| <i>Mucous Urine</i> | - | - | 198-200 |
| <i>Symptoms</i> | - | - | 199 |
| <i>Treatment</i> | - | - | 199-200 |
| <i>Suppression of Urine*</i> | - | - | 200-201 |
| <i>Symptoms</i> | - | - | 200 |
| <i>Causes</i> | - | - | 201 |
| <i>Remedies</i> | - | - | 201 |
| <i>Dropsy</i> | - | - | 201-202 |
| <i>Treatment</i> | - | - | 202 |
| <i>Gravel</i> | - | - | 202-203 |
| <i>Treatment</i> | - | - | 203 |
| <i>Incontinence of Urine*</i> | - | - | 203-204 |

* For the like complaints in New-Born Infants, See the third volume.

| | PAGE |
|--|---------|
| <i>Incontinence of Urine—Remedies</i> - | 204 |
| <i>Polydipsia, or Excessive Thirst</i> - - | 205-206 |
| <i>Remedies</i> - - | 205-206 |
| <i>The Seven-days-disease, and Pecheguera of South-America</i> - - | 206-208 |

VOLUME SECOND.

INTRODUCTORY PREFACE

On the subjects treated of in this Volume ; and on

| | |
|--|---------|
| <i>APPARENTLY STILL-BORN INFANTS</i> | 213-220 |
| <i>On affections of the skin. Of two kinds</i> | 221 |
| <i>Scall'd-head</i> - - | 221-225 |
| <i>In general only a topical Complaint</i> | 222 |
| <i>Is highly contagious</i> - - | 222 |
| <i>Of different kinds</i> - - | 222-224 |
| <i>Treatment</i> - - | 222-225 |
| <i>Scurfyness of the head</i> - - | 225 |
| <i>Itch</i> - - | 225-226 |
| <i>Herpes, or Ring-worm</i> - - | 226-227 |
| <i>Appearances</i> - - | 226 |
| <i>Remedies</i> - - | 226-227 |
| <i>Ulcerating Herpes</i> - - | 227-228 |
| <i>Treatment</i> - - | 227-228 |
| <i>Shingles</i> - - | 228 |
| <i>Of Warts and Corns</i> - - | 229-231 |
| <i>Steatomatous Tumours, or the Suct-like Wart</i> - | 231 |
| <i>Inflammation of the Eyes</i> - - | 231-237 |
| <i>Variously distinguished</i> - | 232-233 |
| <i>The common inflamed Eye</i> - - | 232 |
| <i>The watery Eye</i> - - | 233 |
| <i>The purulent Sore-Eye</i> - | 234-237 |

| | PAGE |
|--|---------|
| <i>Sore Eye after Small-pox and Measles and from Scrofula</i> (note) | 236 |
| <i>Soreness of the Eye-lids</i> - - | 237 |
| <i>(Venereal Sore-Eye)</i> - - | 238-239 |
| <i>Treatment</i> - - | 238-239 |
| <i>Hints on the Venereal Disease</i> - - | 238 |
| <i>Speck on the Eye</i> - - | 239 |
| <i>Cataract, and Gutta Serena</i> - - | 239-242 |
| <i>Intimation of Remedies</i> - - | 240-242 |
| <i>Stitche, or Sty</i> - - | 242-243 |
| <i>Deafness</i> - - | 243-245 |
| <i>Causes</i> - - | 243 |
| <i>Remedies</i> - - | 244-245 |
| <i>Abscess within the Ear</i> - - | 245-246 |
| <i>Ear-Ach</i> - - | 246 |
| <i>Tooth-Ach</i> - - | 246-247 |
| <i>Canker of the Mouth</i> - - | 247-249 |
| <i>Remedies</i> - - | 248-249 |
| <i>Gangrenous Erosion of the Cheeks</i> - - | 249-250 |
| <i>Appearances</i> - - | 249 |
| <i>Treatment</i> - - | 250 |
| <i>Induration of the Breasts</i> - - | 250-251 |
| <i>Abscess in the lower-belly</i> - - | 251-253 |
| <i>Treatment</i> - - | 252-253 |
| <i>Psoas, or Lumbar-Abscess</i> - - | 253-255 |
| <i>Symptoms</i> - - | 253 |
| <i>Treatment</i> - - | 254-255 |
| <i>Abscess of the Hip-joint</i> - - | 255-256 |
| <i>Symptoms</i> - - | 255-256 |
| <i>Treatment</i> - - | 256 |
| <i>Abscess under the Fascia of the Thigh</i> - - | 256-257 |
| <i>White Swelling of the Joints</i> - - | 257-258 |
| <i>Palsy of the Lower Extremities, with Curvature of the Back-bone</i> - - | 258-261 |

| | PAGE |
|---|---------|
| <i>Palsy, &c.—Cause</i> - - | 258-259 |
| <i>Symptoms</i> - - | 259 |
| <i>Treatment</i> - - | 259-261 |
| <i>Debility of the Lower Extremities</i> - | 261-262 |
| <i>Cause</i> - - | 261 |
| <i>First Symptoms</i> - - | 261 |
| <i>Treatment</i> - - | 261-262 |
| <i>Discolouration, accompanied with debility of the Limbs</i> | 262-264 |
| <i>Curvature of the Bones from Weakness</i> - | 264-265 |
| <i>Remedy</i> - - | 264-265 |
| <i>Whitlow</i> - - | 265-266 |
| <i>Boils</i> - - | 266-267 |
| <i>Chilblains</i> - - | 267-271 |
| <i>Cause</i> - - | 267 |
| <i>Treatment</i> - - | 267-271 |
| <i>Burns and Scalds</i> - - | 271-273 |
| <i>Remedies</i> - - | 271-273 |
| <i>Luxations and Fractures</i> - - | 273-276 |
| <i>(Luxation of the Lower Jaw)</i> - - | 273 |
| <i>Treatment</i> - - | 273-276 |
| <i>Cutting of the Tongue</i> - - | 276-277 |
| <i>Suffocation from swallowing the Point of the</i> | |
| <i>Tongue, and Bleeding</i> - - | 277-278 |
| <i>Symptoms</i> - - | 277 |
| <i>Remedy</i> - - | 277-278 |
| <i>Bleeding of the Nose</i> - - | 278-279 |
| <i>Bleeding from the Navel</i> - - | 279-280 |
| <i>Soreness, or Ulceration of the Navel</i> - | 280-283 |
| <i>Unkindly separation of the Navel-String</i> - | 283-284 |
| <i>Ruptures</i> - - | 284-287 |
| <i>Rupture at the Navel</i> - - | 284 |
| <i>Of the Belly</i> - - | 285 |
| <i>In the Groin</i> - - | 285 |

| | PAGE |
|--|---------|
| <i>Strangulated Ruptures</i> | 286 |
| <i>Watery-rupture</i> | 287-288 |
| <i>Appearance</i> | 287 |
| <i>Treatment</i> | 288 |
| <i>Windy-rupture</i> | 288-289 |
| <i>Retention of the Testicles</i> | 289-290 |
| <i>Tumefaction of the Prepuce</i> | 290 |
| <i>Falling down of the Gut</i> | 291-292 |
| <i>Causes</i> | 291 |
| <i>Treatment</i> | 291-292 |
| <i>Discharges from the Vagina</i> | 292-293 |
| <i>Of various Kinds</i> | 292 |
| <i>Purulent discharge</i> | 293-294 |
| <i>Treatment</i> | 293-294 |
| <i>Of the Venom of Insects and of certain Animals</i> | 294-296 |
| <i>Complaints mentioned by Ancient Writers</i> | 298 |
| <i>Ranula</i> | 299 |
| <i>Seriosis</i> | 300 |
| <i>Inflatio</i> | 300 |
| <i>Crinones, or Grubbs</i> | 300-301 |
| <i>Treatment</i> | 300-301 |
| <i>Morbum Pilare</i> | 301 |
| <i>Phthiriasis</i> | 302 |
| <i>Macies, or Wasting</i> | 302-303 |
| <i>ON Congenite Disorders (or such as appear at the Birth)</i> | 303-338 |
| <i>Hernia, or Rupture of the Brain</i> | 303-305 |
| <i>Description and Appearance</i> | 303-304 |
| <i>Treatment</i> | 304-305 |
| <i>Tumours, or Swellings of the Scalp</i> | 305-307 |
| <i>Treatment</i> | 305-307 |
| <i>Lymphatic Tumours of the Head and Back</i> | 307 |
| <i>Treatment</i> | 307 |

| | PAGE |
|--|---------|
| <i>Imperfect Closure of the Foramen Ovale, and Canalis</i> | |
| <i>Arteriosus of the Heart</i> - - - | 308-309 |
| <i>Symptoms</i> - - - | 308 |
| <i>Spina-Byfida, or Forked-Spine</i> - - | 309-317 |
| <i>Description</i> - - - | 310-311 |
| <i>Cause</i> - - - | 310 |
| <i>Progress of the disease</i> - | 311-312 |
| <i>Remedies</i> - - - | 313-317 |
| <i>Parenchymatous (or soft spongy) Tumours</i> | 317-318 |
| <i>Situation</i> - - - | 317 |
| <i>Treatment</i> - - - | 318 |
| <i>Hepartomphalos, and Ventral, or Belly Hernia</i> | 318-319 |
| <i>Description</i> - - - | 318-319 |
| <i>Treatment</i> - - - | 319 |
| <i>ON other external Disorders, and certain Blemishes,</i> | |
| <i>supposed to be Marks of the Mother</i> - | 319-338 |
| <i>Causes commonly assigned</i> - | 320 |
| <i>Experience proves them to be groundless</i> | 320-325 |
| <i>Hare-lip</i> - - - | 325 |
| <i>Operation</i> - - - | 326 |
| <i>Properest time for the Operation</i> | 326-327 |
| <i>Marks that may be remedied</i> - | 328-330 |
| <i>On discoloured Spots</i> - - - | 328-329 |
| <i>Tumours and superfluous Parts</i> - | 329-330 |
| <i>Of divers unnatural Forms</i> - - - | 330 |
| <i>Blemishes after Birth</i> - - - | 330-331 |
| <i>Vagina imperforate</i> - - - | 331-332 |
| <i>Rectum incomplete</i> - - - | 332 |
| <i>Imperforate Anus</i> - - - | 332-333 |
| <i>Imperforate Penis</i> - - - | 333-334 |
| <i>The Ears Imperforate</i> - - - | 334 |
| <i>Squinting</i> - - - | 335-336 |

| | PAGE |
|--|---------|
| <i>Vari and Valgi, or Distortions of the Extremities</i> | 336-338 |
| <i>Peculiarities of the Hair and Eyes</i> - | 338-340 |
| <i>The Albino</i> (Note) - - | 339-340 |

VOLUME THIRD.

| | |
|--|---------|
| <i>PREFACE</i> - - - | 343-344 |
| <i>INTRODUCTION, on the Nature and Properties</i> <i>of Human-milk</i> - - - | 345-384 |
| <i>DIRECTIONS for the MANAGEMENT of INFANTS</i> <i>and YOUNG CHILDREN.</i> | |
| <i>Introductory matter</i> - - - | 385 |
| <i>On Dry-nursing</i> - - - | 386 |
| <i>Contrary to Nature</i> - - - | 386 |
| <i>Arguments in favour of it usually futile</i> | 387 |
| <i>Advantages of nursing, to the Parent</i> | 387-388 |
| <i>(Artificial Nipple-case, Note)</i> - - - | 390 |
| <i>The Contrary a public Evil</i> - - - | 391-392 |
| <i>Encouraged by the Habits, and Manners of the Age</i> | 394-395 |
| <i>The Duty of great attention to Infants</i> - - - | 393 |
| <i>Hints taken from the irrational Species</i> - - - | 393-394 |
| <i>Great Heat and Cold, and strong Light to be avoided</i> | 394 |
| <i>On washing of Infants</i> - - - | 395-399 |
| <i>Of more importance than is usually imagined</i> | 395-396 |
| <i>On the Cold-bath (Note)</i> - - - | 396-398 |
| <i>Salt-water preferable</i> - - - | 397 |
| <i>On Chafings or Excoriations</i> - - - | 399-401 |
| <i>Particular modes of cleanliness recommended</i> | 400 |
| <i>On forcing out the milk from the tumid</i> <i>breasts of Infants</i> - - - | 404 |
| <i>Poultices preferable</i> - - - | 402 |

| | | |
|--|-----|---------|
| <i>Errors in regard to the first-clothing of</i> | | |
| <i>Infants</i> | - - | 403-407 |

OBSERVATIONS on the NON-NATURALS.

| | | |
|--|-------|---------|
| <i>On AIR</i> | - - | 407-410 |
| <i>Its great importance</i> | - - | 407 |
| <i>Great cautions necessary</i> | - - | 408-409 |
| <i>The Snuffles</i> | - - | 410-411 |
| <i>To be distinguished from a much worse disorder</i> | | 411 |
| <i>On Short-Coating</i> | - - | 411-412 |
| <i>Various circumstances to be considered in changes of dress</i> | - - - | 411-412 |
| <i>On MEAT and DRINK</i> | - | 412-440 |
| <i>Children require no food immediately after Birth</i> | - - | 413-414 |
| <i>Milk, the most proper of all food</i> | - | 415-417 |
| <i>Infants will pine for a long time after the Breast, when prematurely taken from it</i> | - | 418-419 |
| <i>Posture of children when feeding</i> | - - | 421 |
| <i>The Milk, or feeding-pot, its excellent contrivance</i> | | 421-425 |
| <i>Resemblance to the Nipple</i> | - | 424 |
| <i>Objections answered</i> | - | 424-427 |
| <i>Change of food as children grow older</i> | - | 427-430 |
| <i>Proper times of feeding</i> | - - | 430-431 |
| <i>Average of Births and Deaths (Note)</i> | - | 430 |
| <i>Proper diet when ill</i> | - - | 431-432 |
| <i>On the acescent quality of the food of Infants, their disposition to Wind, and their Remedies</i> | | 432-434 |
| <i>On the choice of Wet-nurses, and their Diet</i> | - - | 434-436 |
| <i>On weaning of children</i> | - | 437-440 |

| | PAGE |
|--|---------|
| <i>On SLEEP and WATCHING</i> | 440-443 |
| <i>Observations on the Cradle</i> - | 442 |
| <i>Caution against the use of Opiates</i> | 443 |
| <i>On MOTION and REST</i> - - | 444-460 |
| <i>Exercise how important to Health</i> - | 444-445 |
| <i>Proper time of putting Children on their feet</i> | 445-452 |
| <i>Caution in regard to Females</i> - | 451-452 |
| <i>Inquiry into the fatality amongst the children of the poor, and some attempts towards a remedy proposed</i> - - - - | 449-451 |
| <i>On REST</i> - - - - | 453 |
| <i>On some slighter natural Deformities, with the means of Prevention and Cure</i> | 453-460 |
| <i>On RETENTION and EXCRETION</i> | 461-466 |
| <i>Retention of Urine in new-born Infants</i> | 461-462 |
| <i>Incontinence of Urine</i> - - | 462-464 |
| <i>Infants' bowels should be always open</i> - | 463 |
| <i>On the PASSIONS of the MIND</i> - | 464-466 |
| <i>Laughter and Crying</i> - - - | 464-465 |
| <i>On the Tempers of Wet-Nurses</i> - | 466 |
| <i>An Alphabetical Catalogue of Medicines, &c. with their new Names</i> - - | 467-468 |
| <i>An Alphabetical Index to the Diseases</i> - | 469-476 |

TREATISE,

Ec. Ec. Ec.

The Work calculated for the Direction of intelligent Parents.—

The Diseases of Infants neglected, though of the utmost Importance.—Principal Causes of this Neglect.—The Arguments against it are Natural and Conclusive.—The Plan of this Work, in regard to its Order and Contents.—The Diseases of Infants are but few, and their Causes not numerous.

THE attention which the author has long bestowed on the disorders of children, he would presume to hope, may have enabled him to furnish an intelligent and correct account of them. If the very favourable reception of his former labours, by readers not educated to the profession, has conspired to raise so flattering a conjecture, it has, at the same time, induced him to spare no pains in adapting one exclusively to their use, and particularly to mothers of families. The writer has, indeed, long lamented the very improper method in which the disorders of infants have been treated by those who design them the greatest kindness, but whose mistaken opinions too often

counteract their benevolent intentions. The laudable affection of the fondest mother frequently becomes a source of manifold injury to her tender offspring. And this has not only been the case among the lower class of people, or in situations where medical assistance is procured with difficulty, but even in the metropolis itself, and in the higher ranks of the community; where many prejudices repugnant to the ease and health of children have long prevailed.

Interesting, indeed, and important to society as is the subject of children's diseases, it has been generally regretted by the best writers, that this branch of medicine has remained too much uncultivated; and, indeed, until of late years, little more has been attempted than getting rid of the wild prejudices and anile prescriptions of the old writers, which have too often served only to obscure the true nature of children's complaints. Another, and a very principal cause of so strange a neglect, has arisen from an idea some people have entertained, that, as medical men can have but a very imperfect knowledge of the complaints of infants, from the inability of children to give any account of them, it is safer to intrust the management of them to old women and nurses; who, at least, are not likely to do mischief by violent remedies, though they may sometimes make use of improper and inadequate ones.

How fatal such a mistake must be, is surely sufficiently obvious; since the destruction of infants is eventually the destruction of adults, of population, wealth, and every thing that can prove useful to society, or add to the strength and grandeur of a kingdom. It may, moreover, be observed, that where mismanagement at this period does not actually destroy the life, it often very essentially

impairs the health ; the foundation of a future good or bad constitution being frequently laid in a state of infancy. Whereas, if its complaints are prudently managed, the tenderest children, after being, for a time, reduced by various debilitating complaints, turn out exceedingly healthy ; the resources of infancy, as I shall have frequent occasion to notice, being as astonishing, as they are happily adapted to the great variety of accidents to which it is liable.

It is true, indeed, some laudable attempts have been made of later years to rescue this important trust from being indiscriminately committed to unskilful hands ; but it is still to be lamented, that even in this liberal age, such attempts have not been attended with all the success they have deserved. It cannot therefore be improper, that something further should be advanced on the subject, in the hope of silencing the weak objections often made against procuring the best advice as early as possible. And this is the more necessary, because those who have the greatest interest in the subject, the most authority on the occasion, and the sincerest affection for their offspring, have frequently the greatest objections to medical assistance, till it is, oftentimes, too late to employ it with effect ; at least, this has, certainly, been too much the case, though it is hoped, the prejudice is gradually declining.—I may, indeed, be very inadequate to the task of obviating it where it may still be in force, but I shall state an argument or two that has always appeared to me of great weight.

A principal objection, it has been said, is taken from the consideration of the incapacity of infants to describe their complaints : but surely, none can be ignorant, that the same difficulty occurs in a variety of the most dangerous complaints of adults at every period of life, which confessedly

require the greatest assistance ; such are attacks of phrenzy, delirium, and some kinds of convulsions, as well as all the disorders of idiots and lunatics. But these have been successfully treated in every age, not excepting insanity itself, and the melancholy subject happily restored to society, his family, and himself.

It should likewise be considered, that if infants, for the reason above-mentioned, are to be excluded the benefit of a physician's advice, it is difficult to say at what age children may safely be intrusted to his care ; since at the age of five or six years, they would frequently mislead the enquirer, who should trust to their own account of their complaints. Their ideas of things are too indistinct to afford us sufficient information, and they accordingly often call sickness at the stomach, pain ; and pain, sickness ; they will frequently make no reply to general questions, and when they are asked more particularly whether they have any pain in one or other part of the body, they almost constantly answer in the affirmative ; though it afterwards frequently turns out they were mistaken.

But I may venture to assert, that although infants can give no account of their complaints in the manner we receive information from adults, their diseases are all plainly and sufficiently marked by the countenance, the age, the manifest symptoms, and the faithful account given by the parent, or an intelligent nurse. This I am so confident of, that I never feel more at my ease, in prescribing for any disorders than those of infants, and never succeed with more uniformity, or more agreeably to the opinion I may have adopted of the seat and nature of the disease. Every distemper may be said, in some sense, to have a language of its own, and it is the business of a physician to be acquainted with it ; nor do those of children speak less intel-

ligibly.*—Limited as is human knowledge in every department, there are yet certain principles and great outlines, as well in physic as in other sciences, with which men of experience are acquainted, that will generally lead them safely between the dangerous extremes of doing too little, or too much ; and will carry them successfully, where persons who want those advantages cannot venture to follow them.—Let me ask then ; is it Education, is it Observation and long Experience, that can qualify a person for the superintendence of infants, or the treatment of their complaints ?—Surely all these fall eminently to the share of regular practitioners, to the utter exclusion of illiterate nurses and empirics.

HAVING briefly stated this matter, and given it the attention its importance demands, I proceed to the order of the present work, and variously solicit the candour of the reader. For its bulk, some reason has already been assigned, and, indeed, the alternative of saying too little or too much, has been the subject of much consideration ; and it is possible, that an ardent desire of affording ample information to those who might profit by it,† may, in the opin-

* In neither of these sentiments do I stand alone ; HARRIS, of whose work SYDENHAM is thought to have spoken so highly, has said the same things.

I beg leave to remark here, that as quotations from writers in the dead languages would be more than superfluous in a work calculated only for domestic use, I have omitted most of the notes found in the larger editions, preserving only such as were judged worthy of translation, where a difference in sentiment, from modern authority, has rendered that of the ancients desirable. With the like view, certain quotations from, or a mere reference to contemporary writers, in our own language, have been preserved.

† Amongst the more intelligent domestic readers, it has been conceived, are well-informed midwives : to whom several parts of this work are accommodated.

ion of others, have betrayed the writer into an extreme. For the manner in which the work, in other respects, has been executed, he shall just premise, that the most respectable authorities have been consulted, a proper attention been paid to facts, and his best endeavours exerted to obviate the effects of that peculiar veil, which is said to obscure infantile disorders. A practical arrangement of them has been studied, comprehending likewise the natural consecution of parts, and the order of time in which the complaints severally appear; that some conformity may be every where observed. Regard has also been had to their respective causes and symptoms, tending to elucidate their nature, and render their treatment more obvious than has been generally imagined.

To their immediate Diseases, is added an attention to some of the principal Accidents and little Injuries to which the earlier periods of childhood are peculiarly liable. And here it may not be improper to observe, that whatever merit other publications may possess, it may, nevertheless, with great propriety be remarked, that they either make a part of some large systematic work, the bulk of which must be very foreign from the intentions of this treatise, or else they are far too concise, and have omitted complaints of too much importance to be overlooked; as well as been necessarily silent on many, with which the authors themselves were unacquainted.

The disorders of childhood, however, it has been asserted, are no wise mysterious, nor would ever have been thought so, if they had always been submitted to proper hands, and been as carefully investigated as the diseases of adults. Nor is it otherwise with those of the earliest infancy, of which it may be very safely affirmed, that as they are more obvious than it has been generally supposed, so

their number is comparatively small, their cause uniform,* and the treatment of most of them, simple and certain.†

For the proof of this, as well as in order to establish a rational practice, I shall first consider the *Causes* and specific *Nature* of their complaints, before I attempt to enter upon their *Cure*.

And here I shall not attend to their various remote causes, but shall confine myself to a practical consideration of the subject, and briefly point out their obvious occasions and symptoms. And on this account, I shall not take notice of all the changes which nature herself induces during the growth of children, as they pass from one stage of life to another; which are, doubtless, remote causes of some of their complaints.

A PRINCIPAL CAUSE, mentioned both by ancient and modern writers, is the great moisture and laxity of infants: which is necessary, however, in order to the extension of parts, and the rapid growth of young children. This laxity arises from the vast glandular secretion; their glands in general being much larger in proportion, than those of adults. Of these, there is a great number situate within the mouth, in the gullet, stomach and bowels, which are continually pouring out their contents into the

* This is especially true of the disorders of this period, though it may be remarked, that there is evidently a greater *uniformity* also in the *causes* of the several disorders, even of older children, than there is in those of adults, which have very often various, and dissimilar remote causes, at different times, and in different habits: viz. feminine obstructions, dropsy, &c.

† Infants readily slide into diseases; but when these are not too late, or empirically treated, children are as readily restored to health.

first-passages. This is, doubtless, a wise provision of nature, and I cannot, therefore, think with some writers, that the stomach juice, renders the chyle (or nutritious fluid extracted from our food) less fit for absorption, for without a due proportion of it, no good chyle can be made ; but as we do not strictly follow the dictates of nature in the management of children, as to their food, manner of clothing, sleeping, &c. this abundance of slimy matter may often overload the stomach and bowels, the constant seat of the first complaints in the infant state. A second cause arises from the great irritability of the nervous system, and the delicacy of the muscular fibres, whereby the serous, or watery juices, do not readily enough return, but remain longer than is consistent with a free circulation through the extreme parts. The quality of the milk, or other food with which infants are nourished, may be accounted a third. In addition to these general causes, may be reckoned the want of exercise, which at a more advanced age, happily for us, we are obliged to make use of, and which art, oftentimes, does not duly supply in regard to infants.

Hence arise acidities in the first-passages, a constant attendant upon all their early complaints. Among the first of which, has been reckoned the retention of the meconium ; and the last (which may be termed a disease at all peculiar to infants), is the cutting of the teeth, in which likewise the state of the bowels is very much concerned.

Upon each of the above heads, it may be necessary to make further observations as occasion may offer, in order to take notice of certain accidental causes arising from mismanagement, or errors in the *non-naturals*,* as they have been called ; especially in regard to the quantity of

* Such are *food, air, exercise*, and the like. See Vol. III. Devoted to these subjects.

nourishment administered to infants, and an inattention to the state of their bowels.

THE SYMPTOMS of these first diseases of infants (by which we also judge of their *nature*), are chiefly retention and excretion; sour belchings; sickness; vomiting; purging; the nature of the matter thrown off; watching; inquietude; contraction, and sharpness of the features; blueness about the mouth; turning up of the eyes; thirst; heat of the mouth, or skin; the manner of breathing and of crying; retraction of the lower extremities; and pustules, or eruptions, external, or internal. The pulse and urine are less certain marks, in the greater number of their complaints, than they are in older children and adults. To these may be added, the openness, or firmness of the fontanelles, or moles, and of the sutures of the skull; the strength and figure of the bones; and the relaxation or contraction of the skin.

Having thus briefly adverted to the general causes and symptoms, I shall now proceed to the consideration of the Disorders themselves; and shall begin with one, hitherto unnoticed by writers, which though very rare, is likely to be the first that can take place after birth, and is a kind of

FADING

MANY new-born infants, it is well known, from some difficulty in the birth, lie for a time in a very feeble and uncertain state, with no other sign of animation than a weak pulsation of the heart, and the arteries of the navel-string;* but whenever the circulation and breathing become free,

* The proper remedies on this occasion, are pointed out in a *Preface* to the Second Volume.

children do not seem to suffer from it, and rarely relapse into a very languid state.

On the other hand, in the true syncope, or fainting, here intended, infants may lie moaning and languid for several hours, and after this, faint away completely, in the manner of adults. In this state they may continue for a quarter of an hour, or more, without any sensible respiration, except now and then a gasp, or sob; and the face be as pale as a corpse. These attacks may return several times, though the infant should sleep composedly, and even take the breast between whiles.

The proper remedies are gentle stimulants and cordials; such as rubbing the nostrils, temples, and the feet and hands, with sal volatile; and as soon as the infant becomes capable of swallowing, a few drops of the volatile tincture of valerian should be administered in some generous white wine, and repeated every two or three hours, until the child shall appear perfectly recovered. Stools should also be procured by clysters, or a tea-spoonfull of castor-oil.

DISCOLORATION *of* NEW-BORN INFANTS.

AN affection of new-born infants not much more common than the former, is a discoloration of the face and extremities, and sometimes of the whole body; and like the former complaint, seemingly independent of the circumstances attendant upon the birth. A mere discoloration of the face after laborious births, is indeed, very common, and gradually disappears, without affording any occasion of alarm. But in the present instance, the parts are very black, and afterwards turn of a leaden-blue colour; sometimes appearing the moment the infant is born,

and at others have not been particularly noticed for an hour or two afterwards, or sometimes even longer. In some instances, the discoloration of the face is found to be only partial, appearing in spots ; the greater number being of the size of small peas, but some larger. In many cases, the discoloration abates a little, and in others not ; sometimes it goes entirely off, and returns again ; and in that case is of more serious consequence, and commonly dangerous. For this recurring blackness is found to depend upon some internal malformation or derangement, (similar, though not precisely the same with one to be noticed under the head of congenite disorders)* and for which nothing that I know of can be attempted, but the general remedies for fits ; by which it is usually followed when none of the little subsequent means prove effectual.

FROM the result of this recurring blackness, it seems always to be owing to some fixed cause, excited into action by certain circumstances, particularly any sudden agitation of body or mind. In such cases, the disappearance of the discoloration is followed by a return of a tinge of as deep a colour as at first. But in the innoxious, or harmless kind ; which is the more immediate subject of this chapter ; though the blackness in some instances, after abating a little, again returns, it never acquires the deep colour it had at first, and when it has once completely disappeared, it never returns.

This discoloration, therefore, probably depends merely on some spasm affecting the external veins, and interrupting the free return of the blood into the larger vessels. Where this is the sole cause, the discoloration, howsoever great, is, probably, harmless, and would in every case soon abate, and in time entirely disappear ; but is, never-

* See Vol. II.

theless, removed sooner by proper remedies. The only necessary means seem to be to procure stools, (which should be immediately solicited by clysters) ; to excite vomiting if the infant appears to be sick at the stomach ; and to rub, or gently chafe the body and limbs before the fire. But nothing tends to remove the blackness so suddenly or sensibly, as applying a leech or two upon, or near the livid parts ; and should therefore always be had recourse to, if the blackness does not very evidently abate in a few hours after birth, by the help of one or more of the means that have been recommended.

A disorder as common as the two foregoing ones are rare, and probably the next in order of time, is,

The RETENTION of the MECONIUM.

The Meconium, probably, of no Use after the Infant is born : therefore ought to be carried off early either by natural Means, or by Art.—The mildest Remedies are the most proper.

THE MECONIUM is that black, and tenacious matter, which, it is well known, every infant parts with by stool, for the first two or three days after it is born, or retains to its manifest injury.

The ordinary source of infantile complaints has already been said to originate from something amiss in the first-passages. And I have long suspected, that a foundation is sometimes laid for them, from not duly attending to an early expulsion of the meconium ; which will sometimes firmly adhere to the coats of the bowels, and remain for many days, unaffected even by powerful medicines, as I shall have occasion to remark as I go on : sometimes oc-

causing dangerous complaints from the birth, and at others, giving rise to more remote evils. I shall only observe in this place, that though it should not be all retained, yet a part will often remain much longer than has been usually imagined, and will come away perhaps unnoticed, at a late period, where no retention of it has been suspected. Of this I can have no doubt, having been called to visit infants after the month has been expired, who have been unwell through all that period, and from whom meconium has still been coming away. A tea-spoonfull of castor-oil, given once or more, has soon carried off a great quantity; upon which all their complaints have disappeared.

The meconium is, probably, no longer of use after the child is come into the world, unless it be to keep the bowels from collapsing, till they can be replenished with the aliment the child is soon afterwards to receive. Whereas, if it be not soon carried off, it will not only change the quality of the milk, or other food, as it descends into the bowels, but itself also becomes highly acrid, (the greater part of it being bile); and cannot fail to produce indigestion, flatulency, pain, purging or costiveness, and other similar evils: and the meconium is further disposed to this acrid state, on another account, *viz.* from the admixture of atmospheric air. And it is, doubtless, on these accounts, that provident nature has imparted an opening quality to the first milk of all animals; a certain indication to the rational species, to assist the expulsion of this matter, now no longer required. For though a child should even be suckled by its own mother, (in which case, there is, doubtless, less occasion for other assistance) yet we know that nature doth not, in every instance, fully accomplish her own designs: and it is from some striking instances

of the truth of these observations, that I have said so much on this subject, which I have also been the more inclined to, because so many writers have passed it over almost in silence ; and Dr. BUCHAN has formally objected to it. On the other hand, I believe, no infant can be essentially injured by constantly assisting in this work, provided the means first made use of be lenient ; as they ought always to be.—It is the province of art to superintend nature, and not only to guard against her excesses, but so to watch over her, as to ensure the accomplishment of her intentions, whenever we perfectly comprehend, and can effect them without the risk of doing harm.

Facts, indeed, demonstrate, that some gentle purgative is indicated on this occasion, and that it should be of such a kind as will create as little disturbance as possible, and especially should not be of an offensive, or indigestible nature ; though such have been very commonly advised. In general, indeed, a very little matter will suffice, perhaps a little syrup of roses, diluted with thin gruel, and given occasionally by tea-spoonsfull, will answer the end ; will also serve to keep the child quiet, and so prevent the nurse from giving it improper food. But if this should fail to procure stools, a watery infusion of rhubarb, or a tea-spoonfull of the wine, diluted as above, will be found preferable to the indigestible mixtures of oil and syrup in common use ; and if stronger medicines be required, castor-oil is one of the best. In the country, where the above medicines may not be at hand, a little fresh whey and honey duly repeated, will be an excellent substitute.*

** (Doses of Medicines adjusted to the Age.)*

As I am professedly writing for the benefit of the intelligent parent, I shall take this early opportunity of dropping a hint in regard to the *doses*

The objection now made to oily medicines is very much increased, from nurses scarcely ever giving the quantity that is sent, in the course of the first twenty-four hours, as it is always designed; and administering the rest long after the child has begun to suck, or to feed. At this period, mixing with the nourishment, it has a direct tendency to produce indigestion, wind, and the very complaints,

of medicines, as a kind of *general* guide, where the exact dose may not be pointed out. Indeed, it were impossible, in many instances, to prescribe in such a manner as to afford no latitude to the discretion of those who are watching the infant, and are eye-witnesses to all its complaints; and I might rather lead the less intelligent into errors, by attempting to lay down very particular and precise directions.

The rules I shall here offer will chiefly refer to vomits, purges, anodynes, (or composing medicines) the testaceous powders, termed absorbents, and mercury.

Every one knows, that the doses of medicines should be adapted to different ages; but these are not in mere arithmetical or geometrical proportions, and their due relation is only to be ascertained by experience, and in a reference to all the varieties of constitution, and habits.

From the result of daily observation, one may say, for example, to a child of *seven years old*, nearly the *half* of the dose suitable for *adults*; to one of *three years*, the *fourth* part; of *one year*, the *sixth* part; and the *eighth* or *tenth* part to an *infant* in the *month*.

An *adult* person may take from fifteen to thirty grains of the *testaceous powders*; and double that quantity of *magnesia*, at a dose, to be repeated several times a day.—From fifteen to thirty grains of *ipécacuanba*; and from one to two, of *emetic tartar*, as a *vomit*. From one to two ounces of *salts*, or of *manna*, and from ten to thirty grains of *jalap*, and from four to ten of *calomel* as a *purge*. From ten to thirty drops of *laudanum*; the like number of grains of the extract of the *white poppy*; and from half an ounce to two ounces of its *syrup*, as an *anodyne*.

From this two-fold direction, parents may, perhaps, attain to a more accurate estimation of the *dose* proper for their children, by means of the experience they may have had of the particular quantity of any of the above medicines usually found sufficient for themselves, whereinsoever that happens to vary from the dose here stated as proper for adults.

which the oils, administered in proper time, were designed to prevent. Not to add, that such oily medicines being the usual purgative on this occasion, is an inducement to parents and nurses to procure a repetition of them, and to administer them whenever an infant happens to be costive during the month; and from whence, the above evils may be frequently induced.

But it has been observed, the meconium is not always disposed to come away, even by the assistance of common purgative medicines. Having, therefore, begun with such as the above, if the child has no stool for twelve or fourteen hours after birth, and especially if it should seem to be in pain, a clyster ought to be thrown up; which may be repeated, if necessary, a few hours afterwards. And here I would remark, that in the cases where more powerful remedies are required, scarcely any evacuation will be procured by these gentler means; for, wherever I could procure one copious stool by a clyster, or gentle laxative, the rest of the meconium has afterwards come away with little, or no assistance. But as it sometimes happens, that neither clysters nor common purgatives have any sufficient effect for several days, very powerful means must then be made use of; there being reason to suspect an unnatural suspension of nervous influence, and of which I could adduce many instances: but the proper remedies in such cases will demand more experience than the reader can be supposed possessed of.

INFANTILE-JAUNDICE.

THE Jaundice of infants seems always to have been improperly conceived of. Those who have written

only on children's diseases, have usually passed it over in silence, whilst others have considered it always as rather a serious complaint, and have prescribed as for the jaundice of adults. On the other hand, parents and nurses have usually accounted the common yellowness that appears about the third day after birth, (termed by some the yellow-gum) as the true jaundice. Neither of these opinions seems to be just ; for the latter of these appearances requires no attention at all, and though infants are not very often troubled with the true jaundice like adults, they nevertheless are liable to slighter affections of that kind which claim some attention. These are easily distinguished from the yellowness mentioned above, by the white of the eyes being always very yellow ; but the nails are not tinged, as in the jaundice of adults, though it is probable they usually would be, if the complaint were long neglected, and the child suffered to be costive. I have waited some days to see if the yellowness would go off of itself, as the usual tinge does ; but it has increased rather than diminished. It arises from viscid matter obstructing the gall-ducts, and therefore requires a little emetic. The tartarised wine of antimony* is a very proper one on this occasion, as it may likewise procure two or three stools ; but as children in this complaint are not easily made to vomit, should the wine fail, three or four grains of the powder of ipecacuanha may be given, which is more certain in its operation ; and the next day four or five grains of rhubarb. Should the symptoms continue, the emetic ought to be repeated after two or three days, and rhubarb be given about every other day, till the yellowness

* This, the parent should be apprized, is much stronger than the common antimonial wine.

disappears ; which, under this treatment, never continues more than ten or twelve days, unless the infant be very costive, or the stools are of a very pale colour ; which is but rarely the case. Where an emetic has been objected to, and the whole attention confined to keeping the body open, the yellowness has continued when I have taken my leave at the end of the month, attended with languor, and other symptoms of debility. When the belly is unusually costive, and the stools very pale, infants are generally found to have a true jaundice, and require some saponaceous medicines, such as the water of prepared kali (two or three drops for a dose) together with daily frictions of the stomach and belly, and the use of the warm-bath.

WOMEN long afflicted with jaundice, during any part of their pregnancy, and even actually brought to bed in that state, do not infect their children, unless they also suckle them ; but, from some striking instances, I have found, that suckling in that state is capable of communicating the true jaundice to a great degree, and that it will not be cured, but by the recovery of the suckling-mother or nurse, or by the infant being weaned, as well as properly treated.

INFANTILE-ERYSIPELAS, *or* ST. ANTHONY'S FIRE.

THIS disease does not appear to have been distinctly noticed by any preceding writer. The FRENCH have, indeed, spoken lately of a somewhat similar affection, combined with other complaints infecting crowded hospitals ; the disease, however, does not appear to have been any where noticed in its simple and genuine form. If this be the case (in respect to the form in which it now

appears) it seems necessary to give a name to the disease, which I have apprehended, may, with propriety, be termed, the *Infantile-Erysipelas*.

It is a very dangerous species of that spurious inflammation, and is not very often met with, but in lying-in hospitals. The ordinary time of its attack is a few days after birth ; but it is sometimes met with much later. It seizes the most robust, as well as delicate children, and in an instantaneous manner ; the progress is rapid ; the skin turns of a purplish hue ; and soon becomes exceedingly hard.

THE milder species of it appears often on the fingers and hands, or the feet and ankles, and sometimes upon, or near the joints ; forming matter in a very short time. The more violent kind is generally seated about the share-bone, and extends upward on the belly, and down the thighs and legs ; though sometimes it begins in the neck, and is equally fatal. The fact, indeed, seems to be, that it is always more dangerous when it seizes, or spreads to any parts of the body, than when confined to the limbs. The swelling is but moderate, but after becoming hard, the parts turn purple, livid, and very often mortify, especially in boys, when it falls on the scrotum, where also matter will form ; and in the external genitals in girls. In the former, likewise, the penis swells, and the prepuce then puts on that kind of windy appearance, which it has when a stone is sticking in the passage ; or in the watery-rupture.

UPON the complaint being first noticed in the *British Lying-in Hospital*, various means were made use of without success ; though the progress of the inflammation seemed to be checked for a while ; but it soon spread, and a mortification presently came on ; or when matter had

been formed, the tender infants sunk under the discharge. It is now several years since I proposed making trial of the bark, to which sometimes a little of the aromatic confection has been added ; and compresses wrung out of the camphorated spirit, have been applied to the parts : from which period several have recovered ; nevertheless, the greater number of infants attacked with this disorder, still sink under its violence, and many of them in two or three days.

IN a few instances, the disease has been attended with some varieties. Infants have not only come into the world with several hard, and inflammatory patches, and ichorous blisters about the belly and thighs, but with other spots already actually in a state of mortification. A slough soon spreads to two or three inches in length along the shin, with smaller ones about other parts of the legs, and on several of the toes and fingers. In such cases particularly, the bark and cordials must be exhibited liberally, and the inflamed and mortified parts be well fomented, and dressed with warm applications.

From the good effects attending the use of these means, particularly on a very copious use of the bark, there is further room to hope, that we may be yet more successful in the treatment of this formidable disease ; which has not, however, appeared so frequently at the hospital for the last ten years, as in former times.

MORBID SNUFFLES.

THIS disorder has passed under the general name of the *snuffles*, on account of the kind of noise such infants make in respiration ; but it is not only a far more severe,

but a very different complaint from the one commonly intended by that name. It more frequently takes place in the month, and usually in the first or second week after birth. The discharge is much more abundant than that arising from taking cold, and is truly purulent and thick, from the beginning, and afterwards thin ; though in a few instances, children affected with every other symptom of this disorder, have no discharge of any kind from the nose. But under every form of the disease, infants always appear weakly, and as if unwell, though without any precise complaint ; and are more or less incommoded from the stoppage of the head, especially in their sleep, during which they breathe with difficulty. It generally continues for several weeks, and upon its going off, children, who have had the disorder only slightly, have become otherwise unwell, and such as have been brought up by hand, have been dangerously ill in their bowels.

This disease, like all other disorders, is much more violent in some instances than in others. In all, a peculiar attention must be paid to the bowels, especially that they be kept more than commonly open ; and to attend to the nurse's diet if the infant be suckled.

But it may be necessary to be rather more explicit on this disorder, than on many others that may be considered as above the management of ordinary readers ; because the complaint being as yet but little known, and more dangerous than would be apprehended, it might not otherwise be sufficiently distinguished from the effects of a common cold, until it would be too late to attend to it with effect.

It was first noticed in the year 1790 ; and the most formidable symptom found to be the difficulty of breathing through the nose ; though this is not constant, and

when free from it, children appear to be in no danger : but the difficulty, at other times, is so great as to require an attendant to watch the child sleeping and waking, in order to open its mouth as often as it may be requisite. A singular purple streak is likewise noticed at the verge of the eye-lids ; which may be considered as a precise mark of the disease. A general fulness is also observable about the throat and neck externally, taking place soon after the commencement of the complaint ; which may be properly dated from the appearance of the purulent discharge from the nose : though it has been remarked, that this symptom, although one of the most formidable, may be entirely wanting.

When the above symptoms have continued for some days, according to the strength of the patient and degree of the disease, children become pale and languid ; at this time also the glands of the throat become swelled, and of a dark red colour, with ash-coloured specks upon them, and in some there are extensive ulcerations. The parts on which blisters have been applied in the beginning of the disease, and which had been apparently healed, often mortify towards the conclusion ; and are therefore improper.

The infants gradually decline in their strength, and have a particular catch in respiration. They are unable to suck, though not universally ; they swallow with difficulty whatever is given them in a spoon ; and die in convulsions, or with all the marks of great debility, though not on any particular day of the disease.

The true source of this disorder appears to be a de-fluxion and inflammation over all that extent of membrane that lines the posterior nostrils and contiguous parts. Hence, the copious secretion of purulent matter irritates

the wind-pipe, and produces that spasm, and croaking noise, with recurring sense of suffocation, so uniformly observed in this disease. By descending into the stomach and bowels, it disorders these parts ; and if not very soon properly treated, induces such general disease as presently debilitates, and at an uncertain, but generally an early period, carries off the little patient, in the manner that has been already described. The stools, it may be noticed, are frequently thick and pasty, or if otherwise, are of a peculiar green, or sometimes a blue colour, or if voided yellow, they are always very soon changed. *produces*

FROM this account of the disorder, a regard to the state of the bowels is the manifest indication ; which must be more attended to than in almost any other disease ; since keeping them very open, so as to prevent the lodgment of the matter falling into them, is the grand mean of cure : there being much less to be effected by absorbents and ant-acids to correct the constant sourness, and ill-condition of the stools, than by carrying them off speedily and frequently.

To this end, one or more tea-spoonsfull of castor-oil should be given every day, so as to procure four or five motions daily. If a child should be weakened by this mean, some cordial medicine should be occasionally interposed ; or should this prove insufficient to support the infant, the purgative must be somewhat abated : but it is remarkable, that even weak infants endure purging better under this complaint than perhaps any other, unless it be the tooth-fever. If a convulsion fit should supervene, as it sometimes does, clysters, and the usual remedies for spasm should be administered, and especially the cordial ; which breaking off wind from the stom-

ach, and giving tone to the bowels, becomes a very useful one in this case. In several instances, a recourse to opium, or the syrup of poppies, has been attended with good effect ; and should, in that case, be at least administered every night, after the operation of the laxative ; but in many cases, the anodyne should be given two or three times a day.

Under such treatment, the morbid snuffles has been found to yield in the course of two or three weeks ; some purging medicine being continued as long as the discharge, or difficulty of breathing shall remain. It, however, sometimes runs on as much longer, and is attended with a spasm in respiration as if the infant were dying : this symptom, as well as the snuffling, often recurring some time after an infant has seemed to be cured. In such instances, besides purging, it has been thought useful to foment the bridge of the nose with camomile, or elder-flower tea, and afterwards apply some aromatic liniment.

WHEN the disorder is found not only to hang on for many weeks, (as it sometimes will, even where it has not been peculiarly violent ;) but together with the continued use of purges, to keep the infant pallid and feeble, notwithstanding the exhibition of cordial medicines ; a recourse to the infusion of oak-bark has at once removed the snuffling, and given vigour to the child, in the course even of a few days.

It is necessary only to add, that though this disorder had never till very lately been met with after the month, I have seen one instance of it in an infant of a quarter old ; who was, nevertheless, thought, I know not how justly, to have had some slight symptoms of it in the month.

INWARD-FITS.

ANY derangement of the first-passages is capable of giving rise to various complaints ; among which, that of inward-fits, has lately been taken notice of by some medical people, but I think scarcely deserves the name of a disease. It demands attention, however, because so much has been said about it as to expose the fond parent to continual apprehensions, lest this subtle disease should be insensibly at work, and making way for more severe, and outward convulsions.

This complaint may take place at any period of early infancy, and is said to be more dangerous the younger the infant may be. A constant symptom in this kind of fit, as it is called, is the infant's little mouth being drawn into a smile ; which whoever has noticed must have beheld it with pleasure. And if the complaint extends no further than this smiling, which is generally in its sleep, it arises merely from a little wind, and is certainly harmless, because in this case, the wind is not really confined ; and therefore an immediate recourse to pukes or purges, is more likely to do harm, by straining the stomach, or by relaxing the bowels, than to do any good. Every body is acquainted with the effects of different degrees of irritation of the nerves, from the sensation produced by tickling with a feather, to that of a hard gripe or a violent blow. The first may be said to be pleasing ; and such, I doubt not, is the stimulus in question on the nervous coat of the stomach of little infants, and therefore produces so agreeable a smile, that I could never consider it any more as an indication of mischief than of pain. Indeed, I know of

no complaint that ought to be termed *inward-fits* ; and I mention this, because nurses are continually talking about them, when children are perfectly well, and often give the fond parent needless distress, as well as many an unpleasant medicine to the child.*—They are at the same time treating the true convulsion, whilst slight, in the same way, being led into the error by the idea of inward-fits ; a term they are ever using, but have no precise idea of, nor do scarce any two of them, nor, indeed, medical writers, mean the same thing by it. It were therefore better, perhaps, the term were altogether abolished ; as the child is either evidently convulsed, or has no kind of fit, at least none for which any remedy can be offered.—Infants, as well as adults, do sometimes, indeed, die suddenly without any manifest convulsion. But this more frequently happens after over-feeding, and arises from a spasm of the stomach, (of which I shall treat in the chapter on true convulsion ;) or sometimes of the heart or lungs ; and infants may then be said to die of inward-fits, there being no external convulsion. Infants likewise die suddenly from water in the head ; of which I have seen two instances in the same family, the children being well a few minutes before they died : but neither of these occasions are, by any means, the kind of affection usually understood by the term inward-fits.—If the infant should sleep too long, and the smiling abovementioned should often return, the infant may be taken up, gently tapped on the back, and its stomach and belly be well rubbed by the fire ; which is all that can be necessary. This gentle exercise will bring

* It were certainly a good rule, to administer no medicine to infants for such symptoms as do not indicate some real complaint, unless, where experience proves that such symptoms neglected are apt to forerun some well known disease.

a little wind from its stomach, and the child will go to sleep again quietly.

This complaint, however, is largely treated of by some writers, and Dr. ARMSTRONG wishes to give a few drops of wine of antimony; but it is very apparent, that when he considers it as worthy of more attention than I have just now advised, it is either a true convulsion; in which the eyes are distorted, and the mouth is discomposed, instead of putting on a smile; or else he is prescribing for another disease under the name of inward-fits, which former writers have treated under the head of disorders arising from costiveness and wind. But if this little turn of the features should arise from constant over-feeding, it were endless to administer emetics; the cause of the complaint is obvious, and upon the removal of it the remedy must rest.

SUCH has ever been my opinion of this much-talked-of complaint; and indeed, I have not to this day, after a great deal of attention to infants, seen any thing sufficient to induce me to alter it; or I would have cheerfully suppressed the preceding observations. As I wish, however, to afford all the information I can on every complaint, I have to observe, that a gentleman of great respectability and experience, has conceived, that though the term, inward-fits, has been often misapplied, there is really such a complaint, and that it generally proves fatal. Besides a little blueness of the lips, and slight turning up of the eyes, often noticed by nurses, this complaint is described as attended with a peculiar sound of the voice (somewhat like the croup) and a very quick breathing, at intervals; and is supposed to arise from a spasm of the stomach, lungs, or other vital organ.

THESE symptoms, indeed, I have frequently met with ; and howsoever alarming their appearance, when unaccompanied with any other, they have fortunately, not terminated fatally, as this complaint has been reported to do. On the other hand, I have succeeded in removing this singular spasm in every instance, by treating it as the *chronical croup* ; (which will be noticed in its place ;) administering asafœtida, oil of amber, tincture of soot, musk, or the hemlock-pill. Nor have I been able to learn, after diligent inquiries, that children so affected have afterwards been carried off suddenly, or by any thing resembling this complaint, except in two instances ; in one of which, water in the head had been previously suspected, and in the other there was a true inflammation of the brain.

I have, indeed, of late years very frequently seen what I have termed the *chronical croup*, in children of various ages, and indiscriminately in those nourished by the spoon, and the breast. I have known it attended with severe and repeated epileptic fits ; (and then the bowels have usually been costive, or the stools very clayey) ; but in every instance the crouping noise has yielded, and (with the exceptions above-mentioned) children have done well, treated in the manner I have described ; and therefore cannot doubt that the complaint under consideration is of that kind.

IN regard to costiveness and wind, which have been said to be the parent of what nurses commonly term *inward-fits* ; as they do not always arise from one and the same cause, and are productive of other complaints than those above-mentioned, I shall consider them by themselves ; which seems to be a more rational plan, than adhering to a term obscure in itself, and indicative of a disease not

well defined, which, therefore, may tend only to mislead the reader.

DISORDERS *arising from* COSTIVENESS *and* WIND.

IT has been remarked, that it has been the practice with ancient writers, when conciseness and accuracy were not so much considered as in the present day, to treat of costiveness and wind as a specific complaint ; and the reasons afore-mentioned, as well as from this tract being calculated for general usefulness, it may not be altogether improper to comply with this custom.

COSTIVENESS is either constitutional, or accidental, which ought always to be distinguished, the former being oftentimes harmless ; and, indeed, children of such a habit of body are frequently the most thriving. If the mother should be very constipated, her children generally are so ; and such a disposition, (whilst they continue in health) ought not to be forcibly counteracted, though it will be prudent carefully to watch it. And this will be especially necessary, in the case of children who are subject to fits ; fine lusty infants being often seized with violent convulsions, without any other apparent cause than a naturally costive state of the bowels, and as uniformly recovered from the fits, merely by procuring stools, and breaking off the wind. And this disposition to fits has taken place long before the ordinary period of teething, and has continued till children have been a twelvemonth old ; at which time the solids, and especially the nervous system, have appeared to get stronger. In such habits, a quarter of an ounce of manna, or the like quantity of the syrup

of roses, may be put into any liquid, and as much of it given by tea-spoonfull, as shall open the belly. Or should these prove insufficient, a tea-spoonfull of castor-oil, may be taken two or three times a week : or from three to eight grains of senna-powder, or of the extract of senna, with, or without a dust of grated nutmeg, or cloves : or from five to ten drops of the compound tincture of aloes, to infants of some months old. But rhubarb will not be a fit purgative, though it be joined with magnesia, which will not sufficiently counteract its restringency ; howsoever proper in certain cases. A few grains of magnesia in a spoonfull of dill, or common water, and sweetened with a little manna, or syrup of roses, forms a much neater medicine, (which may be quickened and warmed, where necessary, by a few drops of tincture of senna) ; and in costive habits, which usually abound with acidity, answers very well in early infancy.

But if the child be otherwise in health, it has been said, it is, in general, inadvisable to do much to counteract the natural habit of body ;* though it certainly ought to be carefully watched. On the other hand, it is a custom with many nurses, if an infant have not a motion by a certain hour of the day, constantly to administer some purgative medicine ; and the body being accustomed to this

* I have attended in a family of numerous children, all of whom grew up strong and healthy, but were uncommonly costive, and from their infancy were often several days without a motion ; nor would any gentle means procure it statedly. And on the very day that this note was added, I was consulted for an infant of only three weeks old, who had had no stool for five days, and yet was perfectly healthy and easy. This is not mentioned, indeed, to lead parents to abate of their attentions to a costive habit of body in their infants, but in proof only of its being, in some instances, innoxious, and therefore no cause of alarm as long as children are otherwise perfectly well.

stimulus, it is in a course of time rendered necessary. Whereas, upon waiting a few hours, a natural motion has taken place, as I have frequently experienced upon having prevailed on the nurse to wait for it. If a stool should be wanted, however, a suppository (or dry-clyster) made of a little slip of paper, or linen-cloth, twisted up, and well moistened with oil, may be very easily introduced, and will generally answer the purpose : or should this fail, a bit of Castile soap, mallow-root, or red beet, may be introduced in the like manner. These means will be assisted and a costive habit relieved, by rubbing the stomach and bowels frequently every day with a warm hand, or a piece of flannel.

SHOULD such a costive and windy state of the bowels produce griping pains ; which may be known by the drawing up of the legs, and a certain manner of crying ; it will be proper to apply external warmth to the stomach and bowels, by means of heated bran, or camomile flowers, put into a soft flannel-bag, which will both tend to abate the pain, and assist the operation of the laxative. Or should the costiveness be accidental, it must speedily be remedied ; and if the occasion of it be an improper or too thick food, which is very often the case, the food must immediately be changed. If the child be not usually costive, rhubarb is often the best purgative, as it strengthens the bowels afterwards, infants being much more subject to an over-purging than to almost any other complaint, especially if brought up by hand. It sometimes happens, however, that much more powerful medicines than rhubarb may be required, whether the child be naturally costive, or not ; and in such cases, much caution is necessary on the part of parents and nurses : for, where a proper dose of senna-tea has proved ineffectual, it is sur-

prising what large doses even of rough purges have been given in vain, or sometimes to the injury of the child. On such occasions, I would rather advise a recourse to clysters, and especially those made of succotrine aloes. From three to twenty grains, (for children from the age of two weeks, to two years) dissolved in boiled milk, will rarely, if ever fail of procuring a stool, and will often procure two or three, especially if preceded by the exhibition of a purge. But even rough clysters should be administered with caution, and ought not to be very often repeated, especially to very young children; though less hazardous, in every view, than the frequent repetition of purges of a similar kind, and when used alternately with gentle purges, become expedient and beneficial.

As there is usually too much acidity in the first-passages, in costive and windy habits, a little magnesia may be given for a few days after the costiveness has been removed; and if the child be suckled, the nurse's diet must be attended to. If any flatulency should still remain, (which will not often be the case if it has arisen merely from constipation) a little dill-water, is a very safe and gentle carminative; or should one more powerful be expedient, the fluid parts of the warm opening mixture, directed in the chapter on Purging, may be given, without shaking up the vial. But if the flatulency be an attendant upon a lax state of the bowels and indigestion, its remedy will consist in the removal of those complaints, which will be noticed in their place. Should it, however, continue, it may sometimes prove a real complaint, though it should not happen to be so confined as actually to become an occasion of fits. It is usually, indeed, but a mere symptom of some preceding or attending complaint; nor are its troublesome effects either occasioned or increased

by air taken in with the food, as many people have imagined : atmospheric air being essentially different from that produced by indigestion, whether owing to the weakness of the stomach, as it is called, or the improper quality or quantity of the food taken into it. It may however, in conjunction with other causes, prove a source of many complaints, and create watchfulness, starting, hiccoughs, vomiting, and even convulsions, if not timely attended to, especially if the infant be costive. These will be noticed in their place ; but in ordinary cases, the carminatives above-mentioned, and keeping the bowels open will be sufficient.

WATCHING, *or* WANT of SLEEP.

FOR the reasons given in a former chapter, this article is also considered as a distinct head of disorder, though it is frequently a symptom of the foregoing complaints ; and in that case, may be removed by opening the belly, and afterwards administering some pleasant, and carminative, pearl-julep ;* which will then frequently act

* This remedy has been so called from having been formerly composed of prepared pearls, and the name is here retained because familiar to many readers ; but the pearls having no virtue peculiar to them, are very seldom made use of ; the julep being now prepared from the common shell-powders, or testacea.—As this term (or testaceous powders) occurs very frequently in this work, it may not be amiss to observe, that testacea consist of prepared oyster-shells, crabs' claws, crabs' eyes, pearls, and red coral ; which differ but little from each other. They are likewise denominated absorbents, in which latter class, are also ranked the prepared chalk, and magnesia ; the former is more powerful and binding than any of the testacea, and the latter is, on the other hand, moderately opening.—Of either of them, from three to ten grains (according to the age of the child) may be given at a dose, three or four times a day.

like an opiate, by restoring rest. Sometimes, indeed, this has succeeded so well, when given in large doses, that I have been suspected of having really given some sleeping medicine ; which would in these cases prove exceedingly hurtful, as the watchfulness is generally a mere symptom, and not a disease ; though when very obstinate, it is sometimes the harbinger of epilepsy, and then requires purgative medicines. I cannot, therefore, avoid taking notice in this place, of the destructive custom amongst wet-nurses, of giving opiates, in one form or other ; which, however useful on proper occasions, are sure to act as a poison, and sometimes not a very slow one, when injudiciously administered ; and they never can be more so, than in a costive state of the bowels. A good writer on this occasion observes, that by an injudicious use of GODFREY'S cordial, and other opiates, " thousands, nay, ten thousands of infants have been destroyed."

WATCHINGS may arise from worms, purging, or gripings, whether from acrid breast-milk, or other food, and from indigestion, as well as from every thing capable of producing pain ; each of which probable causes should be very attentively inquired into before we prescribe for the complaint, and will therefore be distinctly considered in their proper place. The usual source may, indeed, be said to be some default in the first-passages, and in very young infants is frequently owing to costiveness. I shall only observe further, if watchfulness be confined only to the night, it is probable the child sleeps too long in the day-time, which may be remedied by keeping it moving, and playing with it throughout the day ; of which little matters more precise notice will be taken in the third volume, devoted to the *Management of Infants*.

THRUSH.

HAVING considered these slighter early complaints, I proceed to others which equally owe their origin to some affection of the first-passages, and are oftentimes of a more serious nature.

One of the most important of these disorders, is the Thrush ; a complaint that, probably, depends not a little upon the different natural habit of infants, as well as upon their management, particularly in regard to food, air, and the state of their bowels. This seems to be the case, inasmuch as the thrush is sometimes found to seize every infant in certain families, in whatever way the children may be managed ; as well as to occur occasionally in others, upon a want of proper attention to the state of the alimentary canal, where a great number of other children, properly watched, have uniformly escaped it. Instances of the latter kind may have been noticed, where the mother happening to be ill, the whole attention of the family has been thereby engaged ; or, where one infant has been put out to nurse, whilst all the rest of the children have been carefully brought up at home.

It is amongst the vulgar errors, however, that the thrush is a very harmless complaint, or is even desirable to a child in the month ; for it is said, if it does not then make its appearance, it certainly will at a more advanced age, and will then prove fatal, or at least, attend patients in their last illness. The fact is, it is a disease of debility, and therefore attacks very young and very old subjects, especially if otherwise weakened. From the above mistake, however, the disorder is often neglected in the be-

ginning, whereby the acidity in the first-passages is suffered to increase, which always aggravates the complaint. The thrush, indeed, is as much a disease, as any other complaint that appears in the month, and is connected with most of the foregoing; a proper attention to which, it has been suggested, may very frequently prevent it.

THIS disorder is so well known, as scarcely to require any description, and generally appears first in the angles of the lips, and then on the tongue and cheeks, in the form of little white specks. These increasing in number and size, run together more or less, according to the degree of malignity, and compose a thin white crust, which at length lines the whole inside of the mouth, from the lips even to the gullet, and is said to extend into the stomach, and through the whole length of the bowels; producing also a redness about the bottom. When the crust falls off, it is frequently succeeded by others of a darker colour: but this is true only in the worst kind of thrush; for there is a milder sort, that is spread thinly over the lips and tongue, which returns a great many times, and always lasts for several weeks. I have seen this so very often the case, that when I observe a child to have the complaint very slightly, and that it does not increase after two or three days, I venture to pronounce it likely to continue a long time, but that it will be of no consequence. I have likewise seen a return of thrush in a child three months old; and the infant no wise ill, nor costive. Care, however, ought to be taken that children with any degree of this complaint be not exposed to cold.—It is an old observation, and there is some foundation for it, that unusually long sleeping in the course of the first week or two, is often a forerunner of this complaint.

The thrush, in its commencement, is said to be generally attended with fever ; but those who have been of this opinion, do not seem to have made what is a very necessary distinction ; since I have, by no means, found this to be the case where the thrush is an original disease ; though the mouth is often so much heated as to excoriate the nipples of the nurse, and become so tender, that the child is often observed to suck with reluctance and caution. In very bad kinds of thrush, it has been hinted, a fever may attend ; but even here it does not appear at the commencement of the complaint, but rather towards the close ; the fever also being of the low kind. And this is owing to the general ill health induced by the morbid state of the stomach juices and alimentary canal, in the same manner as the common hectic fever is induced by the long continuance of other bowel complaints.

It has long been a received opinion, that the thrush must appear at the bottom, and many old nurses will not allow it to be cured if it does not ; and for the like reason, they always suppose it to be going off when this redness takes place. But the truth is, that its appearance there is only a mark of the degree of the disease, or of the acidity that occasions it, and not in the least of its cure ; and is not, therefore, generally to be wished for. The redness about this part is occasioned by the sharpness of the secretions in the bowels, and consequently of the stools, which slightly inflame and sometimes excoriate the bottom, and in a bad thrush will do so long before the complaint is going off ; but in the lighter kind, no such effects are produced, or are, at least, very slight. And, indeed, this redness has been so often mentioned to me as an indication that infants must, unobserved, have already had a slight thrush ; or, according to others, be

likely to suffer by it very soon, where children have, nevertheless, escaped it altogether ; that I have ventured to imagine such infants may be least of all liable to it, if otherwise in good health, at least, my experience seems to support that idea. And I have even conceived, that the acidity of the first-passages being in some children more confined, may prove a remote cause of such infants being troubled with the thrush ; whilst others by an open belly, and stronger habit, may escape it, at the expense only of this soreness of the outward parts, (from the sharp matters passing off) which often continues for several days. And this has led some people, on the other hand, to call this simple redness, the thrush ; and we therefore often hear it said, most absurdly indeed, that children have had it only in this part.

A PRINCIPAL *remote* Cause of this disease, seems to be indigestion, whether occasioned by bad milk, or other unwholesome food, or by the weakness of the stomach.—Perhaps thick victuals, particularly if taken hot, and made very sweet ; also covering the face of the child when it sleeps ; or its breathing the confined air of the mother's bed, may be amongst these causes, and ought therefore to be avoided. The more *immediate* cause, is the thickness, or acrimony of the juices secreted from the glands of the mouth, stomach, &c. producing heat and soreness, in these parts.—A tea-spoonful of cold water given every morning has been thought a good *preventive* : but keeping the bowels duly open, is certainly a much better.

THE means of CURE must be sufficiently obvious, if due attention be paid to the nature and occasion of the complaint. As a general observation, it may be said, that when the thrush attacks robust infants of a costive habit of body, it is easily cured, and indeed requires nothing

more than keeping the bowels well open ; for which purpose, the daily exhibition of castor-oil is, usually, the fittest mean. On the other hand, the complaint is attended with some hazard in delicate infants, whose bowels have been previously weak, and especially where the child is nourished only by the spoon : much, indeed, has been said in favour of emetics, especially wine of antimony, as being almost a specific, whatever may be the particular habit of the infant, but I cannot say it has proved so with me ; nor can I see any sufficient cause for departing from the more ancient practice, in the treatment of this very common complaint.

I believe, therefore, that where there is no fever, nor any uncommon symptom, testaceous powders are the best and safest remedy ; which may be joined with a little magnesia, if the body be costive ; or if in the other extreme, and the child is very weakly, two or three grains of the compound powder of contrayerva in its stead. Some such preparation, I mean, some absorbent, or testaceous remedy, should be administered for three or four days successively, and afterwards something more purgative, to carry down the scales as they fall off from the parts. For this purpose, rhubarb is generally the best ; but when the thrush is very violent ; is of an adust, instead of a white colour ; has come on very rapidly ; and the child is lusty and strong, a grain or two of the powder of scammony with calomel, may be joined with it ; but this must be given with caution. After the purgative, the testaceous powders should be repeated for two or three days as before, till the disorder begins to give way. Afterwards, a tea-spoonful of chamomile-tea, or a few drops of the compound tincture of gentian, well diluted, may be given two or three times a day with advantage ; and the bowels be

or dusky

always kept open. On the other hand, when an infant with this bad thrush is weak and delicate, a decoction of the bark with the aromatic confection is found the best remedy.

the The choice of the testaceous powders, on which some writers have said so much, is of very little importance : the purest and softest are preferable. The design of these medicines, being to absorb and correct the predominant acidity, their effect will be discovered from the kind of stools that succeed, and the dose may therefore be increased or diminished, or they may be altogether discontinued, as circumstances indicate : but as a general direction, it may be said, that three or four grains may be given as many times a day. In the mean time, if the child be suckled, the nurse's diet should be attended to, and in general, her usual quantity of porter or ale, (which is almost always more than sufficient) should be diminished.

extends to IN regard to applications to the part, it is necessary to observe, that as they have little to do in curing the complaint, it will be improper to have recourse to them very early. I know, indeed, it is very common to begin with them, but they serve only to increase the soreness of the parts, (especially in the manner they are generally used) and to give a deceitful appearance of amendment. The proper intention of these remedies, at this period, is merely to preserve the infant's mouth clean and comfortable, and to prevent as much as may be, any pain or injury to the wet-nurse. If therefore the inside of the cheeks and tongue are covered with thick sloughs, or foulness, it may be convenient to clean the mouth two or three times a day ; but otherwise, it will in general be improper till the complaint is past the height, the sloughs disposed to fall off, and the parts underneath inclined to heal ; which

never takes place till the secretions in the first-passages are become bland and mild. Proper applications will then have their use, not only by keeping the mouth clean, but by constricting and healing the raw, and tender apertures of the little vestels of the cheeks and tongue.

Of these preparations, a variety have been in use, in the form of locions and gargles, which from the earliest times have all been of an astringent nature. Borax is certainly one of the best ; and may be mixed up with sugar, in the proportion of one part of the former to seven of the latter ; a pinch of this put upon the child's tongue will be licked to all parts of the mouth : but made into a paste with common honey, (about two scruples, or a dram, to an ounce) it will hang about the mouth better than in a powder. Either of these however may, at this period, be made use of as often as shall be necessary to keep the parts clean ; which they will effectually do, without putting the infant to pain, by being forcibly rubbed on. I must own, I have frequently been distressed, at seeing nurses rub the mouth of a little infant, with a rag-mop, as they term it, till they have made it bleed ; and this operation they will often repeat half a dozen times in a day.

It only remains to take notice of the black thrush, as it is called, which is confessedly so very uncommon a complaint in the infant state, that the late Dr. ARMSTRONG said he had never met with it among the great number of children brought to his dispensary. After the stomach and bowels have been cleansed, I believe a decoction of the bark, with the aromatic confection, as before mentioned, is the most likely medicine to be of service. In such cases, the bark should be administered very freely, and the bowels be kept open ; which, in this case, is more safely done by rhubarb, than any other purge.

GANGRENOUS, or PUTRID THRUSH.

THIS is a very different disease from the foregoing, and attacks children at a much later period; seldom before they are two years old, nor later than nine or ten, unless by infection. The eruption does not seem to be the consequence of any preceding general disease, and is the cause rather than the effect of those febrile symptoms that accompany it.

Its first appearance is marked by a very spongy state of the gums, and a remarkable tenderness of the inside of the cheeks and mouth; soon after this, little ulcerations, having a dark-coloured surface, appear upon the gums, the inside of the lips, and upon the tongue; sometimes similar ulcers are seen at the back parts of the mouth, but this is not always the case. As the disease proceeds, the cheeks become slightly swelled, and are very tender when touched; and there is often an unusual redness upon that portion of the skin which covers the lower jaw. Besides the thrush-like appearance upon the tongue, that part is usually very much furred, and the teeth about the edges of the gums are likewise covered with a blackish fur; the breath is very offensive; and at this period the disease is highly infectious, even to adults. In the progress of this complaint, the glands under the chin become enlarged and slightly painful; and there is generally a preternatural flux of spittle, which is sometimes discharged in considerable quantities from the beginning of the attack: sometimes, though rarely, the angles of the mouth are ulcerated. It is always accompanied with a considerable languor, and sense of debility; the appetite is impaired; but children do not sleep ill, and they are often cheerful and

active, at different parts of the day. It does not observe any exact periods ; some children recovering in a fortnight, while others have been more or less affected from a month to six weeks.

FORMIDABLE as the appearance of this disease may be, it does not seem to be very dangerous, if properly treated ; and the remedies are obvious. A table-spoonful, or more, (according to the age of the child) of the infusion of Cascarilla bark, warmed with the compound tincture of Peruvian bark, exhibited three or four times a day ; and the parts frequently washed with a decoction of the latter, rendered as sharp with the diluted vitriolic acid as children can bear it, having hitherto proved sufficient to cure this complaint, at one or other of the periods above mentioned.

ERUPTIONS *on the* SKIN.

IT is, by no means, my intention to enter largely into this extensive subject, especially in regard to the order and class of the various kinds of eruptions. In another part of the work I shall treat of the scall'd-head, and two or three other troublesome affections of the skin, taking place at different ages ; but shall at present chiefly confine myself to eruptions peculiar to infancy : advert-
ing first of all, to such as are connected with the state of the first-passages. The earliest of these, is

The RED-GUM, *or* BENIGN-ERUPTION.

THIS is an efflorescence appearing usually in small spots, often confined to the face and neck ; but at others, it extends to the hands and legs, and even the whole body,

appearing in very large patches, and sometimes raised above the surface. It will likewise appear in the form of small pustules, which are filled with a limpid, or even a purulent, or yellow liquor, and frequently turn dry and horny, and scale off; and seems to be a ranker sort of gum, as it happens only in the month, or soon afterwards, and never gives any trouble. There is another species as small as pins heads, or even their points; firmer than the former; often of a pearl colour, and opaque, which has generally been accounted a kind of red-gum; but it has of late been suggested, might for distinction sake, be termed the *white-gum*; as the former might, the *yellow-gum*. Every species of this eruption, like the thrush, is the effect of a predominant acid, but can scarcely be termed a complaint, being a kindly exertion of nature to throw off some acrimony; consequently an evidence of the strength of the constitution, as the thrush is, usually, of its weakness. In the former, nature throws off the offending matter on the surface more completely than in the latter, and therefore, when the eruption is slight, requires no assistance.

On this account it is, I apprehend, that writers have not usually taken notice of it, though certainly requisite from many parents being much distressed on account of it, especially if it be of the more extensive and rank species. In general, it is necessary only to give a little testaceous powder, or magnesia, (according to the state of the bowels) to absorb the acid; and to keep the child moderately warm; otherwise the rash striking in, the acrimony will fall on the first-passages, and be succeeded by sickness, or purging, (till the eruption appears again on the skin;) or not unfrequently by the thrush, or a slight return of it, if the child has lately recovered from it. The state of the

skin, and the bowels have a peculiar consent ; and on this account, infants whose first-passages have been frequently disordered, are always benefited by eruptions on the skin ; and in such, peculiar care is necessary to guard against their being repelled, as well as to invite their return.

Infants are liable to various kinds of rash, both in the month, and till the period of teething is over. The early ones may be regarded as a sort of red-gum ; and children who are most subject to them, generally have their bowels in a better state ; the rash appearing to carry off, as has been said, the acidity with which they so much abound.

It may be remarked, however, that when infants at the breast are inclined to frequent returns of some eruption ; if the child be always indisposed at such seasons, the rash will often be found owing to some ill quality in the breast-milk ; which ought therefore to be examined, and particularly in regard to its taste. On such occasions I have found, that milk which has been above a twelvemonth old, has contracted a *very unpleasant* flavour ; and that upon changing the wet-nurse, a very ill looking rash has immediately abated, and has soon afterwards entirely disappeared, together with the other complaints.

CRUSTA-LACTEA, or MILK-BLOTCHES.

THIS, it is well known, calls for a little more attention, and has oftentimes a very unpleasant appearance, as will presently be noticed ; but is, notwithstanding, equally innocent with the former, and even prevents other complaints. I think I never saw an infant much loaded with it, but it has always been healthy, and cut its teeth remarkably well. Indeed, it falls to the lot of the finest children, and

such as are well nourished ; whence some have imagined it owing only to the richness of the milk. It is remarkable also in this eruption, that howsoever thick and long-continued the scabs may be, the crusta-lactea never excoriates, nor leaves any scar on the parts.

MILK-BLOTCHES appear first on the forehead, and sometimes on the scalp, often extend half way over the face in the form of large loose scabs, which as the disorder increases, appear not very unlike the small-pox after they are turned ; disfiguring the child, in some instances, for several months. It begins with white vesicles, larger than the itch, which soon become of a dark colour, to which succeed the scabs, with a watery discharge, and great itching of the affected parts ; sometimes covering the head, and it is, very improperly, said by some, the whole body.

Very little, indeed, is necessary to be done ; but in bad cases a blister, applied between the shoulders, or behind the ears, is sometimes of service ; and, moreover, usually answers the good purpose of abating the itching, which in some instances is exceedingly great : to this end, however, the repetition of a blister, where needful, is preferable to keeping one constantly open. Washing the parts likewise with warm beer and butter, will both relieve the itching, and be otherwise useful, when the discharge is very hot, and acrid ; as will likewise a cautious use of the tar-ointment made with petroleum, instead of the common tar : further than this, outward applications are likely to be injurious. If the urine becomes turbid, or fetid, it is thought the rash will be of short duration. At any rate, it usually disappears of itself when the child has cut three or four teeth, though in a very few instances it has continued for two or more years : in such cases, the *Harrowgate*, or any

other sulphureous water will have a good effect. This rash will now and then make its appearance very early, and has then been mistaken by those who are not much accustomed to very young children, for the effects of the venereal disease. It has been said, that it usually dies off upon cutting some teeth; and I have known it disappear suddenly, previously to any teeth being cut, and after some weeks become more violent than ever; infants remaining all the while in perfect health.

It were almost endless to enumerate the various kinds of rash to which infants are liable; but I mean chiefly to confine my remarks to the more important, or rare ones, and such as may not have been described by preceding writers. Among such are the following, whose unusual appearance is apt to alarm parents, and others, not accustomed to see them.

TOOTH-RASHES.

THE first I shall notice is somewhat anomalous, or irregular, being like the former, not confined to teething. It appears, indeed, under different complaints; and not unfrequently at the decline of fevers, and severe bowel complaints, insomuch that, upon a sudden appearance of it during a serious illness, I have often ventured to prognosticate the recovery. This rash very much resembles the itch, both in regard to the little watery heads, and foul blotches; and is confined to no particular part of the body, though it appears more frequently about the face and neck. Indeed, I have seen the whole body so covered with it (mixed with an eruption about the face, of a different appearance, and evidently red-gum) that in a

consultation, it has been by some taken to be the true itch. This eruption is certainly salutary, and even critical, requires nothing but to avoid taking cold; and is mentioned only because it is not uncommon, and parents who are unacquainted with it, may from its suspicious appearance, very well be alarmed at it.

I have two or three times during teething, noticed a rash that has so greatly resembled flea-bites, having even a depressed point in the middle of the elevated spot, that I could not be persuaded by the nurse's account that it had not been occasioned by the sting of some such insect, until I had made repeated observations on it, and found it recurring uniformly a little before a tooth has been cut.

Another, and a very common rash appears chiefly in teething children, which very much resembles the measles, and has been sometimes mistaken for it. It is preceded by sickness at the stomach, but is attended with very little fever; though the rash continues very florid for three days, like the measles, but does not dry off in the manner of that disease. It requires nothing more than the shell-powders, or sometimes the addition of a little nitre and compound powder of contrayerva; with a dose or two of rhubarb, or other gentle laxative, on the the going off of the rash.

At this period, especially whilst the double or eye-teeth are cutting, I have noticed a rash which at its first appearance is very similar to the above, and has likewise been mistaken for the measles. It, however, soon spreads into larger spots and patches of a bright red, and afterwards of a darker hue, resembling the purple spots which appear in bad fevers; but is, nevertheless, of a benign nature. It is, indeed, attended with some fever, arising, possibly, from the irritation occasioned by teething, and has been

followed by small and hard round tumours, or lumps, on the legs, which softening in two or three days, always appear as if they would suppurate, or break, though I believe they never do ; as will be further noticed in a similar appearance of boils, under the head of fever.

The treatment, like that of other rashes at this period, is very simple, requiring little more than an attention to the state of the bowels, or, perhaps, a few grains of the compound powder of contrayerva, unless the fever be considerable ; which must then be treated according to the directions given under the different heads of fever, and teething. Should the lumps succeeding the rash not begin to die away in three or four days, a decoction of the bark will be found useful, when the tooth-fever may not forbid a recourse to it.

I have twice lately seen a third kind of rash, in appearance resembling the measles, and like it covering the whole body, but with larger intermediate patches like the eruption in the scarlet fever ; which is mentioned more for its uncommonness, which might render it alarming, than for its being in itself dangerous, or important. It was, however, in both instances, preceded by sickness, purging, pain, and by a little fever ; the whole subsiding upon the appearance of the rash, which therefore seemed to be critical, or at least, like some other eruptions, consecutive to the approaching return of health.

Some infants never cut a tooth without its being preceded by a rash ; and sometimes through a whole family, by a very similar one ; the eruption appearing in every part of the body : in some parts, consisting of hard, elevated pimples as large as peas ; and in others, large red patches on the fingers, and on the arms and shoulders, broader than a shilling : but in no case, has it required any partic-

ular attention ; but on the other hand, has seemed to prevent the more ordinary complaints of teething.

AN eruption still less frequently met with than most of the others, appears after children have cut all their first teeth. I know not what name ought to be given to this kind of eruption, which breaks out in the form of round lumps, as large as middling-sized peas, very hard, with a very red base, and white at the top, as if they contained a little lymph. They come out suddenly without previous sickness at the stomach ; are not sore, disposed to itch, nor ever give any trouble ; and are seldom seen but on parts that are usually uncovered, and are sometimes there in great numbers, resembling the distinct small-pox ; but are harder, more inflamed, and less purulent.

Alarming, as well as unusual, as this appearance may be, the eruption seems always to be perfectly harmless, if not repelled by cold, or improper treatment ; and will dry away in three or four days ; nothing more being necessary than the little remedies, directed for the former, and to keep the child within doors, if the weather be cold.

AN eruption of an appearance equally uncommon, and analogous to the above, I have met with only in children of at least three or four years of age, and such as have also been affected with slight symptoms of scrofula ; though I have no certain evidence of its being, in any degree, owing to that specific humour. It breaks out suddenly, covering at once the greater part of the body, but occasioning neither pain nor itching ; nor are children sick at the stomach nor otherwise ill with it, though it lasts for two or three weeks.

This eruption, therefore, like some others, is taken notice of chiefly for its singular appearance ; which, though somewhat like the nettle-rash, is of a different figure ; and

may be pretty exactly conceived of by the little red lumps sometimes left by the small-pox, after they are turned, and also rubbed, or picked off, especially after the chrystalline or watery species, and where the pustules have been pretty numerous.

If the first-passages are at all disturbed, my attention is principally directed to them, otherwise to the state of the skin; and in this case, I have usually directed small doses of Dr. JAMES's powder, to be taken for a few nights at going to bed, and the polychrest salt and rhubarb, occasionally, in the course of the day, with, or without, the addition of half a tea-spoonfull of the acetated water of ammonia.

In the course of a few days the eruption puts on a darker colour, is less prominent, and begins to scale off in a branny scurf, somewhat like the measles: but should no such change take place, the antimonial wine should be taken two or three times a day; to which, if no amendment should soon be perceived, a few drops of the tincture of Spanish-flies may be added; a remedy often very efficacious in disorders of the skin, but should be administered with caution, and only under the eye of some professional man.

NETTLE-RASH.

AN eruption with every appearance of the nettle-rash sometimes occurs in children, and more generally under two years of age, and is exceedingly troublesome to the infant, as well as matter of surprise to parents, from the suddenness of its appearance. Children going to bed perfectly well, awake very uneasy, and frequently continue screaming, for some time, before the cause is discov-

ered; when upon examining the body, and the lower limbs, they are found covered with large wales, resembling those arising from the sting of nettles; from which the eruption takes its name.

The nettle-rash is, perhaps, the slightest of all fevers; though its accession is sometimes preceded by sickness at the stomach, and pain in the head, especially when the consequence of sudden exposure to a very cold wind in robust youths.

No kind of nettle-rash during infancy, is of the importance that it sometimes is in adults; and only where it may happen to continue a very long time can demand particular notice. The species now under consideration requires less than any other, and, indeed, often disappears in a few hours. When it continues longer, a few grains of the compound powder of contrayerva, or other of the milder absorbent powders, with, or without two or three drops of the compound spirit of ammonia, may be given two or three times a day, and the bowels kept open.

It is however, probably, a milder species of the nettle-rash. When the body is more covered with it, and it continues long, a little more attention may be necessary, and perhaps the child be confined a day or two to its bed, if the weather be cold; especial care being required to prevent the rash being repelled.

AMONGST rashes attended with some little fever, there are various that have acquired no name, and one resembling both the above, and the scarlet fever, but without the marked symptoms of the latter, or drying off in branny scales in the usual manner of that eruption. The figure and colour of the rash, and degree of fever, however, are more of that kind than of the nettle-rash.

PHLYCTÆNÆ, or WATERY-ERUPTION.

ANOTHER rash, or rather eruption, takes place both in bowel complaints and in-teething, and I have seen it also in new-born infants; but it always appears to be beneficial. It may very properly be called the watery-eruption, but the ancients have termed it phlyctænæ; and but few modern writers have noticed it. It consists of vesications or blisters, of different sizes, resembling little scalds or burns, and continues for several days. They come out in different parts, but chiefly on the belly, ribs, and thighs; and contain a sharp lymph, which it may be prudent to let out by a puncture with a needle, especially from the larger ones. Very little medicine is necessary but such as the particular state of the bowels may call for, which usually abound with acidity whenever there is much eruption on the skin: the reader will therefore recollect, that the testaceous powders, or magnesia,* (as the bowels may be too open, or costive) and light cordials, if the infant be low, are all that can be called for.

AN eruption, vulgarly termed scorbutic, infesting the face and neck; sometimes the bottom, and occasionally the extremities, even to the nails; and discharging a sharp ichor that excoriates wherever it runs, will often yield in a short time to the expressed juice of the water-parsnip. From one, to four or five table-spoonsfull may be given, mixed with one or more spoonsfull of milk, three times a day, according to the child's age, and the state of its stomach; taking care, at the same time, to keep the bowels open by senna-tea, or other common laxative; which sometimes will effect more than all other means.—To allay the

* See Note at page 33.

intolerable itching, the tar-ointment, made of petroleum, as before directed, and spread upon linen, is frequently efficacious, and has no tendency to repel.

The GROCER'S-ITCH.

I HAVE several times met with an eruption, resembling the one so denominated in adults ; whether depending at all upon the weather, it is difficult to say ; but it is remarkable, that I have seen it chiefly during a cold season, and have then usually met with three or four children affected with it about the same time. It often begins about the arms and thighs, but always extends soon afterwards to other parts, and frequently spreads quite from the head to the feet.

It appears in some parts in very small eruptions like the points of pins, with watery heads, and in other parts, as large as peas, and sometimes in foul blotches, which after breaking, form sores, and broad, ugly scabs. These die away, and the like appear, successively, in other parts, sometimes for two or three months ; leaving the skin of a dirty, adust hue. In other parts, the eruption is in the form of small, hardened pimples, which do not break, nor are at all sore to the touch.

This eruption appears alike in children who have cut all their first teeth, and in infants at the breast ; though I have happened to see it, I think, more frequently in teething children, and it then seems to be connected with dentition. And this has appeared pretty evident from children who had taken a variety of medicines, and continued to break out in fresh places, suddenly getting rid of the eruption altogether upon my lancing the gums, and three or four teeth in consequence coming through.

When this eruption has appeared in infants at the breast, I have several times known the suckling mother or nurse, in a few weeks afterwards break out in like manner with the child ; but whether by accident, or from contagion from one to the other, it is sometimes difficult to determine ; though, upon the whole, it seems to be contagious, but only in consequence of being much together, and not in the case of slight and occasional intercourse.

If neglected, the eruption is of long continuance, and proves very distressing to parents, having even caused a suspicion to rest on the wet-nurse ; the eruption being sometimes suspected to be the itch, and at others, venereal ; which it certainly is not.

It has been always benefited for a while by washing the parts with two drachms of the pure water of kali in a pint of soft water ; which I would always recommend, though it will not alone effect a cure. Various internal remedies also, which remove other eruptions, have generally failed in this, such as the quicksilver with chalk, and quicksilver with sulphur, given in large doses ; as also the water-parsnip. The external application, however, of an ointment consisting of the sulphur ointment, and ointment of nitrated quicksilver, with a greater or less proportion of the latter, has hitherto never failed me, together with the internal exhibition of one or other of the forementioned remedies.—In some of the more obstinate eruptions, and particularly in this, I have noticed a spontaneous purging take place upon the decline of the rash, and I have always accounted it a good sign ; having never observed the child to be weakened by the purging, though it has continued excessive for two or three weeks.

I SHALL close the account of eruptions with the description of one that is singular enough, resembling very

much the broad ring-worm, or the adust-coloured spots left on the face after an attack of St. Anthony's fire. I have seen it in various parts, but I think only on such as are more or less liable to be fretted by some part of the infant's dress, especially on the bottom, and contiguous parts covered by the cloths; where the blotches are always the broadest and most rank. Were it to appear nowhere else, it would seem to be occasioned by some sharpness of the urine and stools, as the skin has a very heated appearance; though the eruption, I believe, is not at all painful. It frequently breaks out before the period of teething; but the bowels are generally somewhat disordered, and the stools voided very green, or else become so very soon afterwards. This I take to be one of those eruptions occasioned by some bad quality of the breast-milk; as, I think, I have never met with it but in young infants whose nurse's milk has been old, and has also contracted a very disagreeable taste. If that should not be the case, the rash will probably require nothing but the light absorbent medicines before mentioned, and to guard against costiveness. But if these means should not succeed in a short time, the nurse ought to be changed, lest some worse consequence should ensue, as will be noticed under the head of convulsions.

IN all the eruptive complaints of infants, taking cold ought to be carefully avoided, and great caution be used in regard to all external applications, as well as keeping the belly open. If the child is sick at the stomach, a little magnesia, or testaceous powder, with, or without, the addition of the compound powder of contrayerva, may be given now and then, as was noticed under the article of red-gum: or should the rash be hastily struck in, and the

child be ill, it should be immediately put into a warm-bath, and afterwards take five or six grains of the aromatic confection, with, or without a few drops of the wine of antimony, or of the compound spirit of ammonia, in simple mint-water. Whenever any the least indisposition takes place upon the sudden disappearance of any kind of rash, immediate attention should be paid to it, and one or all of these means be had recourse to. I have known such retrocession, in a previously healthy child of only six months old, followed not only by vomiting and purging, but by a rapid decline; the lungs being as replete with tubercles, as I have ever known them to be at a more advanced age. Instances of so great marks of disease, however, have occurred to me only in families inclined to scrofulous, or hectic affections.

Should any scabs become very dry and hard, which the milk-blotches, for example, will sometimes be, especially when they extend to the crown of the head; and seem to give pain; they may be touched with a little cream, or with oil of almonds mixed with a few drops of the water of kali; but not a large surface at a time: or they may be washed with warm-beer and butter. Or should they be very moist, and cause pain by sticking to the cap, they may be dusted with a little common powder, or with flowers of sulphur, and covered with a singed rag; but I should be very cautious of doing much more with drying applications, for the reasons abovementioned, especially during the time of teething.

SORE EARS.

SLIGHT blisters and ulcerations behind the ears of infants are so very common, that almost every parent is

well acquainted with them ; that, in general, they require only to be washed with cold water, or covered with a singed rag, to keep the cap from sticking to them, and thereby giving the child pain. They are, moreover, very often beneficial, especially during bowel complaints, or the eruption of the teeth ; and will sometimes get well and break out again into very foul sores, several times, without any cause for alarm. But in children of a gross habit of body, and especially about the time of teething, there is a species of ulcer that sometimes requires attention, on account of its extending low down in the neck, occasioning great pain, and spreading into large and deep sores ; insomuch that a mortification has come on, and even the bone has become diseased. Here fomentations will be necessary, especially those of bark ; and its powder should be administered internally. Such cases, however, do not often occur ; but whenever the sores are large and painful, fomentations of white poppy heads boiled in milk, will be beneficial. If such ulcers are very foul, the cure should be begun by a blister on the back, in order to draw off the heated serum. Where the bark has not been indicated, I have usually given an opening powder of testacea and rhubarb, with a little nutmeg, or sometimes nitre ; to which it may be necessary, at others, to add some preparation of mercury. But above all, if this species of ulcer be not hereby soon disposed to heal, mercury should be applied externally, which, though the sores are often apparently inflamed, never offends them ; and to which, parents may safely resort. A very clean and elegant preparation of this kind is the following, which ought to be pretty fresh made, and may be prepared by every apothecary in town or country :

R_x. Calomelan. ʒj ad ʒij.

Ung. Sambuci ʒj m. ft. linimentum.

A little of this liniment spread on each side of a piece of doubled linen-cloth, and applied twice a day, will do more than all the fomentations, or healing ointments, that I have ever seen used ; and indeed has always succeeded with me, though I have often been told, that the sores had spread deeper from day to day under various other applications. From such treatment I have never found the least ill effects, but children have preserved their health as well as if the sores had kept open ; which, when benign, are certainly designed by nature as a preservative from some other complaints, especially those of the stomach and bowels, which are the next in order to be noticed.

VOMITING.

I COME now to the several disorders of the first-passages, which have been said to be so materially connected with eruptive complaints ; and first, of those of the stomach.

VOMITING is certainly not a common complaint of infants, I mean when considered as a *disease*, unless it be attendant upon some other ; of which, indeed, it is then rather a symptom, or the consequence of such disease improperly treated. Neither are infants in health disposed to vomit frequently, unless the stomach is overloaded ; the milk is then usually ejected as soon as it is taken, and comes up unchanged. Nor is this to be considered as a disease, or as calling for the discipline recommended by some writers. Wherefore should the residue of the aliment be forced off the stomach by an emetic, when na-

ture has already parted with all the oppressive abundance ? This kind of puking is not attended with any violence to the stomach : the milk, or other food seems to come up without any sensible action of the part, or the child being sick. Nay, it is at once so common to some of the finest children, that it is a saying with some experienced nurses, that a puking child is a thriving child ; and when such ejection comes only soon after sucking or feeding, and the aliment is cast up scarcely changed, matter of fact verifies the observation. I have even known clotted blood thrown up, without any apparent effort, in an infant under two days old, without the least ill effect. But if the food remains some time on the stomach, it will then be thrown up in a curdled state, which is an indication to attend to it, if it happens frequently. Not that the milk ought not to curdle on the stomach, which it always must, in order to a due separation of its component parts ; and is the chief, if not the only digestion, it undergoes in the stomach. The whey and the rich oil are there separated from the curdy and earthy particles, the former being taken up by the milky-vessels in the bowels, is converted into blood ; whilst the bulk of the latter is carried down and expelled with the other excrementitious parts of the food, and glandular secretions, for which nature has no use. This curdling of the milk, therefore, is the natural course of digestion, though many writers have not been sufficiently attentive to it, and HARRIS has asserted, that it is owing to a predominant acid ; implying, that this excess is the only cause of the separation ; which it certainly is not. It may, indeed, occasion it to take place too suddenly, or may form too hard a curd, and give rise to various ill consequences ; although such separation, it has been proved, (as the natural and proper

effect of mixing duly with the stomach, or digestive juice) ought to be made. When infants, therefore, not over-fed, throw up the milk uncurdled, after it has been some time in the stomach, it is always a worse sign. But when the milk comes up in a curdled state, it proves that the stomach having digested what it has received, hath not power to push it forward into the bowels, and therefore throws up a part of it.* If this be the case, and the infant not be immediately relieved by it, the stomach may perhaps require to be emptied of its whole contents, which may then be easily done by giving a little warm water, or chamomile tea. The cause of the indigestion was an accidental repletion; *that* removed, together with the consequent foulness, or bad juices of the stomach, the effect also will generally cease; and unless the vomiting returns, from any further injury the repletion may have occasioned, it requires nothing more. To distress the child, on every such occasion, with a sickening emetic, or drench it with rhubarb and magnesia, is as needless as it would be to awake a patient out of a sound sleep to give him an opiate. Only let the child fast a little after having emptied the stomach of its load, and the nurse be careful not to overfil it for the future, and it will rarely want any other assistance.

If the vomiting, on the other hand, has arisen from acrid diet, a little further discipline may be requisite, because some half-digested food has got into the bowels, perhaps for several days together. In this case, a gentle laxative, and change of food for one of a milder kind, is all that is generally necessary; or if there be a prevailing

* I have known children throw up a piece of curd full as large as the thumb of a grown person, and as firm as a piece of dough; and be perfectly well the next minute; though it, doubtless, might have done much harm if it had remained on the stomach.

acidity in the stomach ; either the testaceous powders, or magnesia, (according to the state of the bowels*) may be mixed with the food, or be otherwise administered for two or three days, as the occasion may require. Or a drop or two of the water of kali is an excellent remedy, especially when the stools are unusually green, or clayey ; not only as it will tend to correct acidity, but promote a secretion of the gall, as well as a generous warmth in the first-passages, and assist the digestion. Should the vomiting be a symptom attending some other disease, its remedy will turn on the proper treatment of its cause. Should it follow upon a suppression of discharge behind the ears, and more especially if consequent upon the use of drying applications, a return of the discharge should be solicited. Or if the cause be the sudden disappearance of some eruption on the skin, the child, it has been said, may be put into a tepid bath, the limbs be well rubbed as soon as it is taken out of the water, and the infant be then put to bed : and if the vomiting continues, an emetic should be given, and afterwards a blister, or warm plaster, applied to the pit of the stomach ; or some light cordial be administered.

Having mentioned emetics, I shall take this occasion to observe, that the choice of them will be always best determined by the complaints for which they are administered. In those of the first-passages, ipecacuanha is generally the best ; but if a fever should attend, or it be wished to promote a gentle perspiration, those of antimony are preferable ; or lastly, in disorders of the breast, the oxymel, conserve, or tincture of squills.

BUT a more troublesome vomiting will sometimes arise in unhealthy children, from too great a sensibility, or too great an irritability of the nerves of the stomach. Such

* See *Note* at page 33.

medicines are then indicated as will brace, or strengthen that organ, and abate its sensibility. For the former, a cold infusion of the bark, or of chamomile flowers, with orange-peel and ginger, and sometimes a little rhubarb : for the latter, a saline mixture with a drop or two of laudanum. And the benefit of these may be increased by aromatic and spirituous fomentations to the pit of the stomach, or by the labdanum plaster, with a little Venice treacle added to it.

LASTLY, a vomiting may arise from a strangulated rupture.* When therefore, scarcely any thing is found to stay on the stomach, or all the above remedies fail to remove a frequent disposition to vomit, the parts where ruptures appear should be very carefully examined, and upon the least suspicious appearances being discovered, the assistance of the nearest surgeon be called for.

INFLAMMATION *of the* STOMACH.

THIS is a disease very seldom met with, I believe, in this country, but is common in *France* ; and is said to attack children of four or five years of age.

THE characteristic SYMPTOMS of this disease are, great pain in the region of the stomach, sometimes recurring every quarter of an hour ; violent contortions of the child ; and the application of a hand to the seat of the disease. These symptoms in the first instance were suspected to be owing to worms, and were prescribed for accordingly ; but the child dying in a few days, the stomach was discovered to be inflamed.

* For further observations on this accident, see the Article of Ruptures, Vol. II.

THE TREATMENT of this dreadful disease is, however, represented as very simple, consisting only in cooling and laxative remedies, which when administered in good time, are said to be usually successful. For this purpose, the juice of lettuce has been administered, by spoonsfull, every hour. This was generally found to relieve the pains in a short time, and some infants who had been judged to be in a hopeless state, and even at the point of death, were perfectly recovered.

MR. ANDRY has done me the kindness of acquainting me, that he has sometimes met with this complaint, in the *hospice des enfans trouvés*. In the instances he has seen, the infants were found to vomit up every thing that was given them; which it is probable, must generally be the case where the stomach is actually inflamed. In this case, perhaps, fomentations, or a blister, to the stomach, and the use of a warm-bath, together with castor-oil, or other softening laxative, ought to be made trial of.

GRIPES.

THE Gripes is a very common term amongst nurses, and some writers on children's diseases have treated of it under a distinct head; but this serves to perplex matters, instead of explaining them. If a child be not hungry, nor hurt by some part of its dress, there will always be symptoms attending to account for its crying, and other expressions of pain. The cause is, indeed, very commonly in the bowels, and may be increased by costiveness and wind, which have already been treated of, but more commonly manifests itself by a purging; which comes next in order to be considered. I shall only previously observe, that children when very much griped, sometimes refuse

taking the breast, though offered them repeatedly, when placed, in the usual manner, on the nurse's arm, but will take it, nevertheless, very readily if they are held, upright, before her.—The reason of this, perhaps, is, that the offensive and irritating matters in the stomach do not then press upon its upper orifice, which is exceedingly sensible, from its numerous nerves; and this may further manifest the impropriety of infants being so uniformly fed in an horizontal posture.*

PURGING.

UNDER the article of vomiting it was observed, that frequent puking is oftentimes an attendant upon some other complaint, and then demands a peculiar attention, and is to be treated agreeably to the nature of such complaints; and there is, perhaps, none which it more frequently accompanies than a purging.

Both vomiting and purging very often arise from unwholesome milk or other food, and from a moist cold air, as well as from the sudden disappearance of some eruption on the skin. The purging is not then hastily to be stopped, nor even absorbent powders to be given, till the offensive matter be first carried off; and if a vomiting attend, the cure should begin by administering an emetic. But though the purging ought not be checked without previous evacuations, nor to be stopped hastily, yet it is not to be treated with a daily exhibition of rhubarb, particularly in very young infants; which, though a common practice with many, serves to keep up a purging after the

* See the article, *Diets*, Vol. III.

cause has been removed, by creating a continual irritation in the bowels. Purging, indeed, is a complaint often as difficult to treat as any in the infant state, and therefore demands the most precise directions. In a general way it may be said, that a sufficient dose or two of rhubarb should be administered in the beginning, and afterwards absorbents. If the purging should still continue, an emetic will be necessary, as purges do not always lie long enough in the stomach to carry off the offensive matter it contains. After this, it is often necessary that the child be purged again; for it should always be remembered, that many complaints of infants, whether seated only in the first-passages, or attended with fever, will frequently seem to be giving way upon procuring stools freely, but will soon return if the same means be not repeated, till the whole irritating matter be carried down. Should such repetition fail of success, though the diet has been carefully attended to, the use of them at present should be laid aside, and recourse be again had to absorbents, and if there be no fever, to light cordials, and even to opiates; without the latter of which, many bowel complaints will not admit of a lasting cure, owing to the great irritability of infants. Such medicines are not, indeed, very often required till children are some months old: but when they are found necessary, not only may syrup of white poppies, but even laudanum be given with the most perfect safety;* though from the time of GALEN, (who cautions against giving Venice-treacle to children) till of late years, many physicians have been fearful of directing them, (arguing from their abuse against their use) and especially HARRIS, who

* From the half of a drop, to two, or three drops, in the course of the day, will be a proper quantity for infants from a week old, to the age of six months.

in other respects, has written so well on their diseases. I remember being called to see an infant of only two days old, who, through a mistake, had taken some hours before, four drops of laudanum. The parents were greatly alarmed at the child's lying in a stupid, drowsy state, without being able to take the breast or open its eyes. I advised, however, only to get a little breast-milk down with a tea-spoon, and encouraged them to believe that the laudanum would do no kind of harm; the infant having no disorder for which that medicine was improper; although the dose in this instance was too large. Accordingly, though the child lay sleeping above six and thirty hours, it afterwards awoke perfectly well.—This is mentioned, however, only by way of encouragement to such as may be fearful of administering opiates even where they are necessary. They are, nevertheless, very powerful medicines, and should be prescribed with due caution for patients of every age, especially for infants; and particularly when a purging is connected with teething, or is attended with fever; in which cases, I have seen the most fatal consequences from arresting a purging. A like caution may be necessary in regard to cordials; which are, nevertheless, in many cases equally proper, notwithstanding a modern prejudice against them. There is a certain coldness and languor in infants when they are ill, especially under some bowel complaints; and whenever they may be in that state, that class of medicines will have a very happy effect.

It is to be remembered, however, that a purging is not always a disease; but on the other hand, a remedy, and a very common and important one. The bowels are the great natural, and critical outlet in infants, as the pores of the skin, and the kidneys are in adults; although in both,

from their great extent of surface, they spread a very broad mark for the shafts of disease. Not the mere discharge, therefore, but the cause of it is, in the first instance, to be removed; whilst the ill effects are to be guarded against by keeping the purging within bounds. For this purpose, the chalk julep, as it is an astringent only by absorbing the acrid, or changing the acid, and irritating matter, is as safe as it is useful; becomes an excellent anodyne, or composing medicine, and after the bowels have been well cleansed, and the irritating cause removed, will usually accomplish the cure.

REGARD is to be paid to the kind of stools that come away, which are seldom healthy and natural, and are usually distinguished into the *sour* and *curdled*, *slimy*, *mucous*, *green*, *pale*, *clayey*, *watery*, and *bloody*;* some of which are at times also *fetid*. Under some of these, and particularly the latter, a powerful purgative, such as senna-tea, is generally necessary, if the child is not very young. True *bloody-stools* are less common in infants than adults, and seldom occur but in the last stage of the disease; but a few streaks of blood may sometimes be mixed with the feces, which arising only from the small veins near the bottom, is a matter of no consequence. *Watery-stools* will be considered apart, under the head of the *true watery-gripes*: at present I shall only caution the reader by observing, that very threatening appearances of that affection, when green and curdled matters are purging off, are sometimes happily removed, in a day or two, by a gentle emetic and such a warm purge as that noticed below. When the stools appear very *slimy*, and more especially the *sour*, or

* On stools discoloured by blood, or otherwise blackish, notice will be taken in the chapter on the watery-head, and also in Vol. III. where mention is made of sore-nipples.

curdled, or when the child is much disposed to hiccough, the magnesia, and other absorbent powders are calculated to afford peculiar assistance, and may be warmed by the addition of a little grated nutmeg. When the stools are very *green*, or *white* and *clayey*, a drop or two of the water of kali may be occasionally put into the other medicines, or a little soap be dissolved in the clysters, which are essentially necessary when much griping attends this complaint; some light cordial is also frequently useful, and the child's belly may be rubbed with a little warm brandy, or fomented with a decoction of chammomile flowers, or white poppy heads.

It may be observed, in this place, as a pretty general indication, that purgatives for infants ought to be made potentially warm, by the addition of a little ginger, pounded cardamom-seed, carua-tea, or dill-water; which is of more consequence than is generally apprehended. I have, indeed, known a careful attention to this circumstance alone, happily suppress complaints in the bowels, which had long continued obstinate, though, in other respects, properly treated. On this account, I venture to recommend the warm laxative hinted at above, as an excellent general remedy, especially as infants are pleased with it, and it will keep for a great length of time.

Take of rhubarb fifteen grains; half a drachm of magnesia; sweet fennel, and dill waters, of each six drachms; half an ounce of syrup of roses, and ten or fifteen drops of the compound spirit of ammonia: of this, one, two, or three tea-spoonsfull, according to the age of the infant, may be given, two or three times a day. Or three or four grains of rhubarb and magnesia, with two or three of nutmeg, may be given in a tea-spoonfull of the solutive syrup of roses, at going to bed.

Should purgings return frequently, it will be very useful (especially in the time of teething, or upon the striking in of some eruption on the skin), to procure a little discharge behind the ears, or to apply a burgundy-pitch plaster to the back. For the former purpose, some finely pounded Spanish flies may be rubbed on the part, till a slight excoriation, or rawness, is produced; or perhaps a better, though not a common method, is to draw a piece of course doubled worsted, or a bit of narrow tape, through a piece of common blistering-plaster, and lay it close behind the ears where they rise from the head, and to repeat it occasionally; which will produce a discharge exactly from the spot where it is wont naturally to arise.

NOTICE is taken in another place,* of *pale stools* being no uncommon occurrence when children are breeding their teeth. They are also met with in fevers as well as in simple disorders of the bowels: the complaint, however, has been found most obstinate in children who are turned of a year old, and cutting their double teeth. The stools are not only clayey, thin, and very white, but curdled like those of very young infants at the breast. In the beginning, it is seldom attended with any degree of pain, or other complaint, except it be the loss of appetite; and this has led parents and sometimes other people to think, that the discharge ought to be checked by absorbents, or opiates. But nothing can be so improper, as I have already noticed; the skin soon becoming hot, the tongue white, and the disorder rarely yielding to any treatment under two or three weeks. This is almost always the case, if teething be any wise concerned in the complaint, unless the teeth happen to be nearly cut through: though a purging with pale stools, it has been said, is met with in fevers

* See the Chapter on *Teething*.

of another kind, where the cause is confined wholly to the first-passages. But, whatever the age of children may be, they are always somewise indisposed while the stools are of this colour ; and whether there be either purging, or fever, or not, children loose their flesh ; as it is, indeed, likely they should, from this clay-like matter sticking to the coats of the bowels, and preventing the due absorption of the nutritious parts of their food. This is especially true when the stools are thick as well as pale, or when they are of a leaden-blue colour, and very adhesive, or pasty, and in an amazing quantity, as is sometimes the case. Under these latter circumstances, very small doses of calomel, administered daily, is an admirable remedy.

Whether teething be materially concerned or not, purging, by one mean or other, is the proper and principal remedy, unless the gums are in a state to be lanced, or the stools should continue a long time very pale, or clayey, after the fever and purging disappear. In the latter case, some saponaceous medicine will prove serviceable, such as the water of kali, or a few drops of the compound spirit of ammonia, taken two or three times a day ; the bowels being still carefully kept open.

Where teething is the probable source of irritation, and of those pale stools, but lancing the gums has not accelerated the irruption of the teeth ; or the period is too early to expect benefit from it ; children are sometimes not only free from fever, but are, on the other hand, cold and languid, and should therefore be purged less frequently. Some cordial medicine should also be administered on the intermediate days, as well as on the evenings after the physic has operated.—The following is a very proper one, and such as I frequently prescribe : Of the aromatic confection, a scruple ; spear-mint water, an ounce and

half; dill-seed water, half an ounce; syrup of tolu, or of saffron, a drachm; compound spirit of ammonia, ten drops.—As cordials are frequently mentioned, the above may serve as a general guide, and may be made more or less warm, by a greater or less quantity of the aromatic confection, or spirit of ammonia.

In the early part of the disease, the active purges are the most proper, such as castor-oil, senna, and sometimes calomel; or, if the fever be considerable, an infusion of burnt-sponge, and senna, in boiling water; a preparation equally adapted both to the fever, and this kind of purging. This should consist of two parts of senna leaves (by weight) to one of the burnt-sponge made of such a strength, that the bowels may bear one, or more table spoonsfull, two or three times a day.—The infusion as soon as it is become cold, should be strained through filtering paper.

ANOTHER bad kind of stools appears sometimes during teething, that cannot fail to alarm parents, and may, possibly, puzzle some medical men, since nothing like it, that I know of, takes place in infants at any other period; though it is not uncommon in adults, and especially, I think, in females. This is a discharge of mucus, or of a jelly-like matter, which appears in great quantity, and is sometimes accompanied with a little blood.

Neither of these discharges, however, do any harm, if the bowels are kept a little more than usually open by some soft purgative, such as oil of almonds and manna, or castor-oil made into an emulsion; and some such light cordial as the above be interposed, or the pearl-julep,* if found necessary, in order to strengthen the bowels.

* See page 33, *Note*.

The cause of this appearance seems to be of the same kind with that in adults; owing to some irritation falling on the glands of the bowels, creating and keeping up an increased secretion of their natural mucus; and it is well known, that the time of teething is that in which the bowels are peculiarly liable to irritation.

When purgings have continued a long time without any amendment, a peculiar tightness of the skin will sometimes take place in the last stage of the disease, affording always an unfavourable prognostic; and of which further notice will be taken under the article of *Skin-bound*.

I COME, lastly, to treat of the true *Watery-gripes*, so called, which is esteemed the most dangerous of all purgings, and is usually thought fatal, though perhaps without reason; since if properly treated, children recover from it as well as from excessive purgings of any other kind, unless it happen after some other illness, or to very small and tender infants during the month, especially if attempted to be brought up by hand. It is not the having a few thin stools, however, that is an evidence of the true watery-gripes, for in the common purging of a few days continuance, the stools are oftentimes very thin as well as numerous. But in this case, they are thin very early in the disease; the child looks wretchedly, and every thing it takes runs almost immediately through it with very little change. It should likewise be remarked, that these symptoms continue, and are increased as the disease advances; it having been already noticed, that there is a semblance of watery-gripes, that will otherwise deceive, as it requires a different treatment: to which it may be proper here to advert a little more particularly. For here, the stools are more perfectly fluid than in the true *watery-gripes*, and are tinged only with the

bile, and are very numerous ; the thin stools arising from a violent, but ineffectual effort of nature to get rid of offensive matters ; for upon exhibiting a warm purgative, or castor-oil, very thick, and always clayey stools are brought away. A mixture with chalk and aromatics should then be administered ; to which laudanum should be added, if the stools are still too numerous, and the child appears much debilitated. The purging medicines must be afterwards repeated as long as the stools shall be clayey ; and the restraining cordial interposed, as occasion may require.

IN the *true* watery-gripes there is not the like indication for purging, but the CURE should be begun by administering one or more emetics, especially when the stools are of a dark colour and fetid, as they frequently are in the earlier periods of the complaint. And to this end, a pretty strong one should be prepared, which should be given in divided doses, at about a quarter of an hour's distance, till a proper effect is produced ; and some hours afterwards a warm purge with rhubarb should be administered, if the disease be not very far advanced. After the first-passages have been cleared, the eighth part of a grain, or less, of ipecacuanha, given every three or four hours, with a few grains of testaceous powders, or the aromatic confection, are the best remedies in the earlier periods of the complaint. Indeed, ipecacuanha in very small doses, especially if duly guarded by some gentle aromatic, is both so useful and safe a remedy, that it should not be hastily laid aside ; and when persevered in the use of for some time, will effect wonders, not only in long purgings, but in other chronical complaints. Alike useful, in many cases, is the antimonial wine.—The labdanum and other plasters likewise, as directed for vomitings, or the following may be applied to the parts above the navel, especially in case of great pain :

Take of Venice treacle, one ounce ; expressed oil of mace, two drachms ; and oil of nutmeg, three drops ; mix them into a plaster, to be spread on a piece of soft leather : or the following ; Take white poppy-heads bruised, two ounces ; galls, one ounce ; bistort-root, and cinnamon, of each two drachms ; boil in two quarts of water to one quart, then add of old red port wine half a pint. Flannels dipped in the above liquor made hot, are to be applied several times a day.

Should these means fail, I have known the repetition of a vomit give an immediate check to the complaint, especially where the stools continue to be remarkably sour. As long as this is the case, it would be both vain and hazardous to exhibit opiates, or powerful restringents : the acidity must be first carried off by warm purges, and be corrected by absorbents ; the latter of which must be given in large, and repeated doses, and frequently their powers be augmented by the addition of the water of kali, or tincture of myrrh. The acidity once removed, a starch clyster may be thrown up, two or three times a day, with, or without a few drops of laudanum, according to the number of the stools, and weakness of the infant. A drop or two of laudanum, likewise, may now be given, once or more in the day, (according to the age of the child) either joined with some purgative, or in any of the afore-mentioned medicines, or in the chalk-julep, made warm with tincture of cinnamon, or of cardamoms ; and in cases of extremity, in the decoction of log-wood, which agrees very well with young children.—In the advanced stage of watery-gripes, or in the case of great debility, a liberal exhibition of aromatics and opiates is essentially necessary.

BOWEL complaints, it was said, are frequently owing to improper food, which on this account, should at all times

be peculiarly attended to ; and when a purging has taken place, ought to be suited to the nature of the stools. In the third volume of this work, ample notice will be taken of the article of children's food ; at present, I shall only observe, that cow's milk is often found to disagree with them when their bowels are disposed to be too open ; at which times, a little lean mutton broth, or beef-tea is abundantly preferable. On the same account, rusks and biscuit-powder are more suitable than bread ;* but at other times, I believe, either the Uxbridge, or the French roll, which are already half digested by a previous fermentation, are more easily dissolved in the stomach, if there be not a predominant acid in the first-passages. But where there is an habitual disposition to purging, I know of no diet so proper for infants who do not suck, or who cannot have enough of the breast, as flour slowly baked for a long time, till it breaks into a soft, greyish-coloured powder†, and afterwards mixed with boiled cow's milk, the scum being first taken off ; the flour and milk should then be boiled a little time together, till the whole appears like a thin custard. This is a very light and soft food, and sufficiently restraining ; and I have often known more good from it, than from all the absorbent medicines ever devised, and have received more thanks for the prescription, as it proves a permanent remedy. The powder of arrow-root likewise, boiled in water, and then mixed with milk, is an admirable remedy when it can be procured genuine. When the watery-gripes, or indeed any violent purging,

* Rusks are preferable to tops and bottoms, as they are called, which have more butter in them.

† To this end, the flour should be put into a small jar properly covered, and be taken out of the oven several times, and stirred up from the bottom and sides of the jar, that it may not run into hard lumps, but the whole be equally baked.

attacks very young infants at the breast, no other food ought to be administered ; but the wet-nurse be changed, if the acidity and purging continue many days, and medicines do not seem to take a proper effect ; which they cannot, if any offensive matter be continually taken into the stomach.

If infants ill of watery-gripes, are brought up by hand, the strictest attention must be paid to their food, which must be changed from one kind to another, and especially trial be made of broths, as long as the food shall be disposed to turn very acid on the stomach. In one case, I saved a child by BATES's julep of life, lowered with water, when nothing else would stay on the stomach. This served both for food and medicine ; for the former of which it was still further diluted.

When children who are weaned, are attacked with repeated purgings, and even broth is found to run through them, I have observed no food so generally useful as a bit of white chicken, not over-boiled, and afterwards lightly bruised in a mortar with the chicken liquor, and a very little bread, into a kind of light jelly. But this should not be given oftener than twice, or at most three times a day.

IN all bowel complaints, it has been already remarked, that infants are disposed to eruptions on the skin ; by which they are so frequently benefited, that if any kind of rash appears during long or severe purgings, a recovery may be almost with certainty predicted.

INCONTINENCE *of* STOOLS.

THE long continuance of the last mentioned complaint, as well as others that may debilitate the habit, may

that prove an occasion of that now under consideration. Children who are at all times accustomed to have a very open belly being especially liable to lose the faculty of properly retaining their stools, and need a servant continually to attend them, even at two or three years of age ; inso-much shat some have been suspected of being culpable in the matter.

No very appropriate remedy, I believe, is likely to be necessary, having never ordered any thing more than dashing the parts, daily, with cold water, and administering lime-water, or other absorbent : the complaint wearing off as such children grow up ; though oftentimes not entirely for several years.

WORMS.

WORMS may, probably, exist in almost any part of the body, as well as in the stomach and bowels. They have, accordingly, been found about the heart, in the bladder, the nose, and sinuses of the head, and even in the lungs, liver, and other solid parts. But as we neither know how they are produced, nor how to dislodge them from these recesses, which they also more rarely occupy in young children, it is quite sufficient to notice the fact ; our inquiries being properly confined to worms in the first-passages.

It is on this account, that the complaint is noticed in this place, especially as worms are said to have been voided by infants of only a few weeks old. It is even reported, that they have been discovered in the still-born fetus. This, indeed, is much doubted by others, it being a very old observation, that worms are never voided by infants who are nourished only at the breast ; and if so, it is not

likely they can be generated before birth. *Mr. De Lille*, however, disputes this, asserting, that worms were expelled from his own daughter, when only eleven weeks old, and living entirely at the breast.

However this may be, it is evident, that worms are much oftener suspected to be the cause of children's complaints than positively ascertained ; and of this, practitioners who deal in secret medicines, have in every age made their advantage ; it being certain, that a mere foulness of the bowels will produce all the evils attributed to worms. Neither are all children equally affected by them where they are actually met with ; some infant-children (as well as quadrupeds) continuing very healthy, though they are seldom free from them, and others parting with great numbers unexpectedly, without any previous indisposition ; whilst some children are very ill who have apparently very few. The pains and other complaints in such cases arise from some other source, of which I lately saw an instance in a girl of twelve years of age, long subject to excruciating pains of the stomach, for which she took various worm-medicines, and actually parted with several of the large round worms, but without the least relief to her pain ; which afterwards immediately yielded to antispasmodic remedies.

I, nevertheless, cannot agree with *Dr. BUTTER*, that worms in the human intestines are altogether innoxious, much less, as he seems to think, useful, and intended, as he says, as "nature's remedy for destroying the superabounding morbid humours ; and for stimulating the first-passages by their crawling motions, and thereby assisting the natural motion of the guts to carry off what remains of the offending load." On the other hand, children who are most troubled with worms are generally of a costive habit,

WORMS become hurtful chiefly from their numbers ; first, when they obstruct the bowels, or compress the adjacent parts by their bulk. Secondly, by sucking up the chyle designed for the nourishment of the child. Thirdly, by irritation. Fourthly, by actually destroying the parts ; though this is certainly a very rare occurrence, and a far less frequent source of injury than those before mentioned. They are likewise said to have occasioned sudden suffocation, by rising up into the throat and lodging there.

They are chiefly of four kinds, the large round worm ; the very small maw-worm, resembling bits of thread ; the short, flat, white worm, and the jointed, called the tape-worm, which is often many yards long. This is the most hurtful of all, and most difficult of cure, because it will remain long in the bowels even after it is dead, and is then seldom brought away but in pieces, and that by very powerful medicines : but this kind of worm is certainly not common in children.

THE symptoms of worms are various, and many of them very equivocal : I shall name only the more constant, and less uncertain ones. Such are fetid breath, especially in the morning ; bad gums ; itching of the nose, and of the bottom, especially from the maw-worm ; a very irregular appetite, always in extremes, whether of hunger or of loathing ; a large, hard belly ; pains at the stomach ; sometimes vomiting, oftener costiveness, or irregular purging, with slimy stools ; irregular colics ; thirst ; dulness ; peculiarly unhealthy and bloated countenance, with a dark, hollow circle round the eyes ; startings in the sleep, and grinding of the teeth. To these symptoms are often added, slow fever, with a small and irregular pulse, pale, or whitish urine, a short and dry cough, (which is an al-

most constant symptom where the complaint is of long standing, and has injured the health;) sometimes even convulsions, epilepsies, tetanus, and partial palsies of the lower extremities. In the case of convulsions, if there be a small pulse attended with a hiccough, it is an almost certain sign that the convulsions are occasioned by worms. The like may be said of a pain in the stomach, if it be very violent, sudden, attended with great anxiety, and a hardness and soreness of the parts above the navel. But more especially a pale swelling of the upper lip, and of the nostrils is a certain token of worms.

THE CAUSE of this troublesome complaint is not, perhaps, certainly known; but the great moisture of young persons is thought to be an occasion of their being more infested with them than older people: and children, whose digestion is weak, are more liable to them than others.

BUT whatever be the cause, the general intention of CURE is obvious enough, which is to bring them away in the most easy, and expeditious manner, whether alive or dead; the difficulty chiefly consisting in dislodging them from their firm attachment to the sides of the bowels.

In this view, the indications must be, first, to destroy the slime in which they lodge, and secondly, to kill and expel them. The first may be effected by the water of prepared kali, Venice soap, bitter aromatics, and mercury; or by resolvents; as the gums, asafoetida, galbanum, and such like. Secondly, worms are killed by oils, (in clysters) by honey, and by indigestible substances, as the testaceous powders, steel, and tin; and by mercury, which at the same time expels them. To these ends, indeed a variety, of medicines, pretty much of the same kind, has been devised, and has served the cause of empiricism in every age.

Most of which consist either of the bitter purges, or mercurials.

Worms existing in the bowels can, indeed, only be carried away by purging ; and very active purges are indicated when the time of life and the constitution do not forbid. But when these are tender, gentle purges given duly for some time, by the constancy of their operation produce, without harm, an effect equally, or perhaps more beneficial and lasting, than the active purges. These are often joined, or administered alternately with bitters ; and hence have arisen the family receipts, as wormseed, tansey, and such like, given in treacle or honey, or joined, as it has been said, with rhubarb, senna, or other gentle laxative.

Agreeably to the above view of gradually ridding the habit of these vermin, children of a delicate frame, and such as have not been long infested with them, may begin by taking a little senna-tea every other morning ; but should this prove insufficient, a few grains of the powder of scammony with calomel may be given the over-night, once or twice a week according to the age and strength of the child ; and some bracing medicines be interposed. A clyster likewise of five or six grains of succotrine aloes, dissolved in a cup of warm milk, may be thrown up over night, and a proper dose of rhubarb, or senna-tea be taken the next morning : which course may be repeated, as the obstinacy of the complaint, or the strength of the child shall direct. But one of the most powerful means, long in use with country practitioners, and of late strongly recommended, is the *coubage* variously prepared ; but the most simple form, that of giving it mixed up with treacle, is, perhaps, the best of all. It should be taken night and morning for three or four days, and then be purged off

with senna-tea, or jalap ; and this course be repeated, as occasion may require.

AMONGST other means, especially for such as may be at a distance from medical assistance, is a mixture of pewter filings and treacle, of which children of four or five years old, may take several tea-spoonsfull in a day, almost at pleasure ; which they will also readily do, for the sake of the treacle. At the same time, from five to ten grains of jalap, with as much of the quicksilver with sulphur should be given twice every week, to purge off the dead worms. To answer this purpose, the following plaster is sometimes sufficient ; it should be applied on the belly, a piece of cotton being first laid over the navel.

TAKE of succotrine aloes, and of the powder of chamomile flowers, of each a drachm ; of Venice turpentine, a sufficient quantity, to form into a plaster ; to be spread upon thin leather, with a little margin of sticking plaster, that it may keep its place. Or equal parts of bullock's gall, and powdered aloes, may be mixed up with butter, and the parts below the navel be anointed with it, two or three times a week ; or succotrine aloes and powder of dried rue, made into a plaster with Venice treacle, and applied round the navel, first covering that part with a little cotton.—I mention these things with a view to the country poor, whom the benevolence of their neighbours may incline them to assist, and who may, by these easy means, do it at so little expense to themselves.

If the complaint, however, has been of long standing, and the child not very young, mercurial purges are the most expeditious remedy ; though the quicksilver with sulphur, taken for a length of time, and occasionally purging with senna, has sometimes succeeded, even where there have been the severest convulsions. For which

likewise, or obstinate contractions of the limbs, the warm-bath is often essentially necessary.

THROUGHOUT the cure, and indeed afterwards, the diet should be strictly attended to, and all fat and greasy aliments abstained from. The child should live upon milk, broths, and meats of easy digestion, with toasted bread and honey, instead of butter, which is exceedingly pernicious.—To prevent a return of the complaint in older children, chalybeate-waters* and bitters may be made use of.

As it is not my intention to enter formally into the distinct treatment often necessary for the tape-worm, (which, indeed, I have sometimes seen brought away by very gentle means) ; I shall do no more than refer to SHMUCKER's new medicine, as well as the celebrated remedy of *Madame NOUFFER*, said to be made use of with great success in *France* and *Geneva* ; as I have also known it to be in this country. It can, in no-wise, however, be proper for young children, though it may, possibly, be safely had recourse to for robust youths, growing up to manhood. It is intended to operate very powerfully on the bowels for many hours, the patient being supported the while by repeated large draughts of broth, or green-tea.

The purge is as follows :

TAKE of sweet mercury well sublimed ; of the resin of scammony, each ten grains ; of gamboge, six or seven grains ; of conserve of hips, a sufficient quantity to make all into a bolus.—But this remedy should be adjusted, as well as administered only under the eye of some medical man.

* A very good artificial chalybeate may be prepared of four or five drops of the common steel-wine of the shops, in a table spoonfull of water, and may be given two or three times a day.

CONVULSIONS.

CONVULSIONS, I have said, may be induced by the last mentioned, and several of the preceding complaints. They are of two kinds; the one *symptomatic*, or depending upon some other disease; or secondly, that which is truly an original complaint, arising from a morbid affection of the brain; though the distinction may not, perhaps, be perfectly accurate. It is for want of some such discrimination, however, that writers have had occasion to observe, that children are much oftener supposed to die of convulsions than they really do; for though a convulsion frequently closes the scene, it has generally arisen from the great irritability of their nerves, and violence of the disease under which they have laboured. On the other hand, should it be granted, that the convulsions of children are generally owing to some other complaint, infants may, nevertheless, be said to die of them more frequently than certain authors have allowed; for where a disease is disposed to produce some violent convulsion, *that*, though a mere symptom, may carry off the patient: although as it may sometimes be prevented or removed, by its proper remedies, (the disease which occasioned it being at the same time properly treated,) infants may often be recovered, who would otherwise expire in a convulsion-fit.

Notwithstanding the force of the above mentioned observation, it is a great satisfaction to be able to affirm, that howsoever some medical writers may underrate the fatality of convulsions, it is far more overrated by ordinary calculators, and especially, alarmingly misrepresented in the yearly bills of mortality. And if it may be accounted a fair rule of judging from the result of my own experience,

both in hospital and private practice, convulsions ought not to be reckoned amongst the most frequent disorders, and are most certainly far from the most fatal to infants; perhaps as many as nineteen cases out of twenty having their appropriate, and almost certain remedies.

SUCH original cause may be a rash improperly repelled; but the source of fits is much oftener seated in the gums, in the time of teething; or in the first-passages, where some undigested matter, or merely pent-up wind, irritates the coats of the intestines, and produces irregular motions throughout the whole nervous system. Instances of this kind are related of children who during the first months have had frequent attacks of violent convulsions, which have disappeared entirely, upon the prohibition of meal-pap. Indeed, too much caution can scarcely be given on this head, thick victuals being a more frequent occasion of convulsions in young children than is commonly imagined. Many infants can bear no kind of thickening in their food; any sort of bread, rusk, &c. disordering their bowels, by occasioning their contents to turn pasty, and cleave to the coats of the bowels, whereby, it has been noticed, a due absorption of the nutritious part of the aliment is prevented; so that children, in the daily habit of taking sufficient food, are always emaciated. Weak and tender as they are, they in this state require repeated purges, especially of castor-oil, with some light cordial on the intermediate days, and a total abstinence from farinaceous food. For such children, veal-tea mixed with milk, is amongst the most innocent and nutritious. Any offensive load, whether from too great a quantity, or bad quality of the food, by occasioning a faulty secretion, must act like a poison; and that the convulsions are owing to this cause may often be known by the complaints that have preceded them, such as loath-

ings, costiveness, purging, pale countenance, large belly, and disturbed sleep. If the child is two or three years old, any load at the stomach may be more readily discovered; the tongue will be foul, the skin hot, and the pulse quick and weak.

Any little matter capable of irritating the nervous system, it has been observed, will induce the *symptomatic*, or first species of convulsions in some infants, whilst others will withstand a great deal. For such habits as the former, the cold-bath will be found the best preservative. Every young infant is, however, more or less, pre-disposed to this complaint; and the disposition continues throughout childhood, in a proportion to the tender age, and delicacy of the habit. The younger and more irritable, therefore, an infant may be, it will be so much the more liable to this convulsion, especially from any considerable disturbance in the first-passages, as was mentioned before; particularly the bad quality, or over thickness of the breast-milk, or other food; and from frights of the wet-nurse. Of this I remember a remarkable instance in a patient of my own, in whose house a visiter suddenly dropped down dead. The mother of the child, which was six months old, was exceedingly alarmed; but her attention being for a moment called off by its crying, she incautiously put it to her breast. In an hour afterwards, the infant was seized with a fit, and lay either convulsed or drowsy, without so much as taking the breast, for the space of six and thirty hours; though it was at length happily recovered, as infants in such case generally may.

Among the various causes of convulsions, (though equally an occasion of many other complaints) may be mentioned that of foul air, and want of cleanliness in the dress, and other accommodations of infants; against which,

the lower class of people only can need to be cautioned. Such a source of convulsions has been peculiarly exemplified in a disorder whose attack being within the first nine days after birth, has been denominated the *nine-days disease*.

This is noticed on the present occasion, merely to record a fatal convulsion, induced by mismanagement; it being mentioned as altogether confined to the *Dublin* lying-in hospital, where it raged for many years, and carried off some thousand children. But it appearing after a while, that the disorder might probably be entirely owing to bad air, and want of cleanliness, great pains were taken to remedy these local defects; and thereby were prevented those very frequent attacks of a disease, which under the former circumstances, had never been cured in a single instance.

Of a like kind, probably, was a curious case I met with very lately, in an infant of only a fortnight old; who was suddenly seized with convulsions without any manifest cause. They had gradually increased for three days when I was called to visit it; and notwithstanding a fair trial given to almost every medicine I had ever made use of for fits, they continued for six weeks, and for the last three became almost constant; so that, except during the short sleeps the infant got, it was rarely five minutes together out of a fit. The last week I attended, all medicines were given up; but the fits continued the same; and the infant reduced to a very emaciated state, was now expected to expire from one hour to another.

As a last resource, the child was taken into the country; where to the surprise of every one, the fits left it; the infant having only two through the whole of the next day, and none afterwards.

The sudden recovery can only be attributed, I imagine, to a change of air; which is the more probable, from the

infant, being removed from a bad one ; the child's parents keeping a liquor house, the lower parts of which, at least, had always a very strong and disagreeable smell of ardent spirit.

THE CURE of convulsions of whatever kind, will consist, principally, in removing the exciting causes, which must, therefore, be inquired into. If from improper food and indigestion, a gentle emetic should be given. If the irritation be in the bowels, whatever will carry down their acrid contents will cure the convulsions, if administered in time ; and we ought generally to begin with a clyster. If the stools appear very foul after common purges, (in which case there will frequently be some difficulty of breathing) a few grains of the powder of scammony with calomel, may be given with great propriety. But if the disposition to convulsions continues, after the bowels have been properly cleansed, and no new irritation of them may be apprehended, the proper remedies for spasm should be administered, such as tincture of soot or of castor, spirit of hartshorn, rectified oil of amber, a drop or two of laudanum, or of oil of rue ; which though an obsolete medicine, is a very excellent one ; as likewise, in some instances, is the water of kali : but to begin with any of these, as is sometimes done, is as hazardous as empirical. Rubbing the back-bone, palms of the hands, and soles of the feet with oil of amber, or water of ammonia, has likewise had a good effect ; as well as frictions over the whole body ; which from the consent of parts, seems to afford more benefit than might be imagined.—A very common cause, however, of recurring convulsions is worms, and where no other probable one may appear, ought to be suspected ; the cure will then depend on the proper treatment of that complaint, the symptoms of which have been already sufficiently pointed out.

Should the convulsions arise from the disappearance of a rash, or of a discharge behind the ears, the warm-bath, blisters,* gentle purges, or a few drops of the compound spirit of ammonia joined with the salt of amber, have been already mentioned as the proper remedies. But when the cause is unknown, as the approach of small-pox, measles, or other eruptive complaint, bathing the feet in warm water, and throwing up a clyster, are the safest means, during the uncertainty. If from teething, after gentle evacuations, and other means directed under that head, blisters, oil of rue, laudanum, or the compound spirit of vitriolic ether, and especially lancing the gums, are the grand remedies. When repeated convulsions connected with some disorder in the first-passages, and recurring for several months, have withstood all the above means of cure and been suspected to arise from some fault in the brain, they have sometimes disappeared of themselves as the infant gets older. At other times, the appearance of some other complaint has put an end to the convulsions; and not unfrequently, changing the wet-nurse; and sometimes even weaning children when six or eight months old, has evidently removed the complaint.

If convulsions come on without any of the preceding symptoms, they have generally been concluded to be of

* Blisters may be dressed with the common white cerate, rubbed down till it becomes smooth, and spread upon a doubled linen-cloth, instead of the hard drawing-plasters commonly made use of, which are very harsh to the tender excoriated surface.—Blisters will sometimes inflame, or be for many weeks indisposed to heal up, in children as well as in adults; in either of these cases, covering the part with a collard or other soft cabbage-leaf, (with the hard fibres on the back part cut off, and gently bruised with a kitchen rolling-pin) will often remove the inflammation sooner than any other application. Dusting the surface afterwards with the finely levigated powder of calamine stone will frequently dispose the ill-conditioned ulcer to heal.

the second species, or a *primary*, or *original* disease, and to proceed immediately from the brain. Some derivation from the head is, therefore, to be attempted by opening a vein, if the child seems able to bear it, or by leeches behind the ears, on the temples, or the inside of the arms; by blisters; purging; bathing the feet in warm water; friction of the legs, and rubbing the soles of the feet with the water, or the compound spirit of ammonia. If children of two or three years old are subject to slight and frequent fits, issues or setons should be made between the shoulders, or in the neck, and be kept open for a length of time: and in weakly children chalybeate waters may be useful.*

This second species of convulsion, said to be an *original* disease, is of all others of the most importance; and that from which future bad consequences may sometimes be expected, being followed by a temporary loss either of the sight, or hearing, and sometimes of the intellects. If the former, it is attended with an unmeaning countenance and a constant stare and motion of the eyes.—If water in the head be not particularly suspected, and the common nervous medicines, with purges and blisters have had no good effect, bleeding with leeches, and repeated emetics should be had recourse to; and if the bowels continue in a good state, the water of prepared kali, as a diuretic, made trial of.

Such are the usual remedies to which recourse has been had for the convulsion which is conceived to be an original disease; but I have now for some years been led to make trial of musk; and from no small success, am warranted in strongly recommending it to notice. In some of the worst cases, indeed, of long continued convulsions, and fits truly epileptic, not to be attributed to the usual causes of infantile irritation; as well as where all the customary

* See *Note*, page 84.

remedies have been previously and unsuccessfully tried, a free exhibition of musk has restored children to health. And this not only where the long continuance of the fits has led good physicians to pronounce them of this kind ; but where the convulsions have also induced total blindness or otherwise deranged the faculties for several months.

But when this convulsion attacks very young children, it generally terminates very soon, sometimes in ten minutes, and is, indeed, often fatal before any means can be made use of ; especially in the case of water in the head. It is true, however, that practitioners are sometimes mistaken in regard to such hasty deaths, and that when convulsions prove so suddenly fatal, they are more commonly the *symptomatic*, or secondary convulsion, and are occasioned much oftener than is suspected by over-feeding.—I have known some of the largest and finest infants I have ever seen, die suddenly in the month, immediately after the nurse had boasted of their having eaten three boats-full of victuals.

In this view of the disease, a few words more may be necessary, especially as they will hold out much comfort in regard to this alarming complaint ; by which, I am however assured, many infants have perished merely from its not being properly distinguished. For though, indeed, all convulsion-fits are in their appearance exceedingly shocking, yet under proper treatment, it has been remarked, they are much less frequently fatal than is commonly imagined, however often they may recur : and for my own part, I do not recollect more than three infants dying in convulsions, during the last five years ; though I have attended several who have had more than twenty fits in a day. Neither is the frequency of their returns during infancy, nor the long continuance of such a disposition an indication of future evils, if the fits themselves be of the kind here supposed.

ed.* But though experience warrants my speaking with confidence on this head, with a view to prevent any unnecessary distress that parents may endure, yet would I, by no means, put them off their guard ; since the recovery, in many cases, depends so entirely upon an expeditious use of the remedy, that even the time lost in calling in assistance from abroad may be fatal to the infant.

FITS of this kind are, indeed, pretty generally known to arise from irritating matter confined in the first-passages, as has been already explained ; but I believe it is not so generally understood how often such matters are lodged in the stomach, (perhaps even its inferiour aperture ;) or very low down in the rectum, or extremity of the bowels. Instances of the latter are not wanting, wherein the hardened feces have lain so low as to dilate the external parts sufficiently to expose the feces to view, and yet the infant been dead before a clyster could be procured from a neighbouring apothecary's ; whereas such fits cease immediately after a plentiful evacuation from the bowels, artificially induced : and I have seen an infant in the month, lying torpid for an hour together, in a kind of fit, and apparently in the very article of death, brought out of it entirely after a large and spontaneous discharge of thick feces. In like manner sudden death has taken place when the load has been in the stomach ; whilst other children have been saved by spontaneously throwing it up.

After what has been said, it would be scarcely necessary to point out the remedies in a formal way, but for the sake

* The above observation is, I believe, strictly true in regard to such kind of fits ; and though in some others, as hinted before, the intellects have appeared afterwards to be impaired, yet are the instances so very few, that there is, upon the whole, little room for parents being alarmed in the apprehension of such consequences.

of directing the most expeditious manner of applying them. In the first instance, doubtless, the obvious means are a soap-clyster, with two or more tea-spoonsfull of salt, (such articles being always at hand) and afterwards administering one or more of the purges formerly directed; which it may often be necessary to repeat for some days, perhaps with an interval between. But when an infant falls suddenly into a convulsion very soon after sucking, or feeding, especially if on any thing actually improper, and the bowels have been for some days in an orderly state, it may reasonably be presumed, that the irritation is in the *stomach*, especially if there be an unusual paleness of the countenance, indicating sickness; or on the contrary, any considerable blackness, with symptoms of suffocation; which I think do not come on so soon when the obstruction is in the bowels. And it should here be remarked, that it is not necessary, that the load in the stomach should be considerable in quantity in order to induce such sudden and alarming convulsions; it is sufficient that the stomach be really oppressed by it to a certain degree; nor does it always appear to arise so much from an oppressive abundance, as from a small piece of undigested food, irritating, and perhaps confined, as has been said, in the inferiour aperture of the stomach, and nature unable to force it either up, or down.

In the case here described it would be improper to think of a formal emetic, at least without making trial of some more expeditious means, such as irritating the upper part of the gullet, with the finger, or a feather, or forcing in a little smoke of tobacco, if that be at hand; either of which often instantly produces vomiting, and puts an end to the fit. To this end, the child should be supported by a hand placed under its stomach and belly, whilst the feather or

other means are made use of ; in which position the infant will be made to vomit more readily, and with less straining, than in any other.

It is further to be noted, that *symptomatic* convulsions are sometimes the effect of a salutary effort of nature, to produce a crisis in some disease the child labours under ; in which case, great caution should be used not to be over officious : bathing the feet in warm water, however, as mentioned before, will be perfectly safe, and perhaps useful.— Having spoken of opiates, I shall just observe, that though they are often very serviceable when judiciously prescribed, they become very hurtful if improperly administered. They will, however, always be safe, where convulsions continue after the first exciting cause has been removed ; or where they are so violent as to become an obstacle to administering proper remedies ; or when the original complaint is of a spasmodic nature ; and, perhaps, particularly where the hands are constantly clinched, and the thumbs drawn down ; in which case, (after properly clearing the first-passages) infants will sometimes bear large, and repeated doses. When arising from debility and languor, the volatile tincture of valerian, administered in Calcevella, or other generous white wine, has been found to be a successful remedy.

WHEN convulsions occur many times in a day, it is of importance to attend to the distance of the paroxysms, or returns ; from which a much better indication may be had of their immediate danger, than from the forcible contraction of the muscles during the fit. For, where the intervals are short, though the fit itself be not long, nor violent, the disease is more dangerous, than where violent fits are attended with long intervals.—The curious case related at page 88, is, indeed, an exception to this general rule ; and there may be others.

PALSY.

THE Palsy, as being an affection of the nervous system ; and afterwards other spasmodic complaints, may be considered in this place. The Palsy, indeed, is a more common disorder in infants, and young children than writers seem to have imagined ; being confined to no age, (having been seen on the third day after birth) and attacking children in very different degrees, in the manner it does adult persons. It, accordingly, sometimes seizes the upper, and sometimes the lower extremities ; in some instances it takes away the entire use of the limbs it has attacked, and in others, only weakens them. Sometimes the speech is very much affected, and at others not at all ; the intellect is also greatly impaired in some instances, and in others is only torpid : for though children may be dull and heavy, like other paralytics, yet when roused, their mental powers are found to be fully awake to the common objects around them.

The palsy is more commonly of that kind which attacks only one side of the body ; but if it be neither fatal, nor soon cured, it is often found to steal imperceptibly upon the other. And I have known the paralytic affection quit one side of the body, to seize the other, only two days before death.

IN any case, the TREATMENT of palsy is much the same in young subjects, as in adults ; and being usually attended with costiveness, calls for brisk purges in the first instance, and a repetition of opening medicines throughout the course of the complaint. And, indeed, if these, together with blisters do not soon afford relief, the disorder usually becomes chronical, or stationary, and the child sinks grad-

ually in the course of a few months, or drags on a miserable life for ten or twelve years, with more or less debility of the arms or legs; but very rarely arrives at manhood. Indeed, the causes of palsy, particularly in young people, who are still growing, are so numerous; and are often so entirely out of the reach of art, as well from their nature, as their seat; being frequently in the nerves themselves, or the brain, that such an event cannot be wondered at.

But where no morbid change of parts has taken place, perhaps infants and young children are oftener perfectly cured than those more advanced in years, by the mere exhibition of two or three brisk purges, whereof calomel often forms a necessary part, as the palsy frequently originates from foul matters in the first-passages. After purging, blisters should be applied, and if no fever attends, nervous medicines be administered, such as valerian, castor, prepared ammonia, and the compound spirit of vitriolic ether. In some instances, the bark and steel have proved useful; or frictions with flannel and aromatics, or ether, and the use of waters at *Bath*; and as frequently as any other mean, electricity, especially if instead of giving shocks, the electric aura only be applied, or sparks drawn from the body seated in the insulating-chair.—If the head should be much affected, a small bleeding, or leeches applied to the temples, may be proper.

WHEN the palsy becomes *chronical*, or stationary, more general remedies will be called for, according to the particular symptoms that may occur; but more commonly remedies of the warmer class.

The palsy is sometimes occasioned or succeeded by water in the head; and in the former case, the sutures of the skull being generally open, and allowing of distention, the

symptoms of compressed brain will not appear so soon as they otherwise would.

In the suspicion of water in the head, trial may be made of mercury, and diuretic medicines (as directed for that complaint;) though it is to be feared, with but little prospect of success, when the original disease has proceeded thus far.

I have noticed a few instances of a partial palsy, or debilitated state, of one or all the extremities; but this has always soon given way. Besides teething infants, whom it has been observed sometimes to attack, I have seen it in others who are older, and the finest children, and is then generally attended with a foul state of the bowels. In any case the only remedies I have found necessary, have been calomel or some other purgative; sometimes an emetic; cordials and bitters; and a volatile embrocation to the limbs. Electricity has also been recommended; and if the complaint should not yield, may as properly be had recourse to in this, as the former instances. If these means fail, the whole of the back-bone should be carefully examined, and if any curvature be discovered, recourse must be had to one or other of the means recommended for the palsy of the lower extremities:* and it may be remarked here, that the seat of the disease having been high up in the neck, close to the head, has sometimes been long overlooked.

ture

SKIN-BOUND.

THIS being a spasmodic affection, and sometimes attended with the convulsion called tetanus,† may be here noticed as introductory to the latter. It is a disorder very

* See Vol. II. † See the next Chapter.

little known either to the ancient or modern writers, (and has been less understood;) being only twice publicly noticed, that I know of, until a few years ago. It has, indeed, been much less common in this kingdom than on the continent, but is equally an hospital disease, and seldom met with but accompanied with some bowel complaint, and still more rarely appearing at the birth.

THE following SYMPTOMS have been considered as characteristic, or descriptive of the disease.

1st. The skin is always of a yellowish-white colour, giving the idea of soft wax.

2d. The feel of the skin and flesh is hard and resisting; and so unlike the feel in any other disease, that parents cannot mistake it.

3d. The thin membrane under the skin is fixed in such a manner, that the skin will not slide over the muscles, or flesh; not even on the back of the hands, where it is usually very loose and pliable.

4th. This stricture often extends over the whole body; but the skin is peculiarly rigid in the parts about the face, and on the extremities.

5th. The child is always cold.

6th. The infant makes a peculiar kind of moaning noise, which is often very feeble; and never cries like other children.

7th. Whatever number of days such children may survive, they always have the appearance of being dying.

THIS disorder commences at no regular period, unless where it appears as an *original* disease; and in that case, more frequently within the first ten days after birth: a few children, it has been said, have been born with it, and such have never survived many days. Whenever it takes place, it attacks several infants within a short time, and

chiefly those, as I have just noticed, who may be in the last stage of obstinate bowel complaints, in which the stools are of a waxey or clayey consistence.

THE CAUSE of this dreadful complaint, when evidently attendant upon disorders of the first-passages, seems to be a spasm depending very much upon a certain morbid state of those parts, and with which the skin is well known to have a peculiar sympathy. But when, though an original disease, it does not take place till some days after birth, the irritating cause, is probably seated in the glands of the skin, and seems to be owing to certain seasons and local circumstances, and principally to unwholesome air, peculiar to hospitals and crouded apartments.

THE means of CURE in this country have been different from those that have lately been found successful on the continent ; but instances of recovery have been very few any where. When the disorder was first noticed amongst us, its treatment was confined to a strict attention to the state of the bowels, and rendering the several medicines very warm by means of the compound spirit of ammonia, which was administered every four or six hours ; and was the only plan attended with any success. Together with this, I after some time directed the frequent use of a warm bath, and chafing the whole body afterwards with warm flannel ; and I think myself happy in having fallen upon one part of the plan that has since appeared to have been attended with the first instances of success in *France* : though, as it appears from one very remarkable recovery, the vapor-bath is greatly preferable to immersion in warm water.

As the disease raging so much in the crouded hospitals abroad, seems to differ in many respects from ours, it is very doubtful how far the plan of cure adopted there may

be applicable in this country, and would therefore be superfluous to enter upon; and my own experience has hitherto not gone beyond the means I have mentioned. But as I ventured long ago to suggest the trial of calomel, together with the bath, the expediency is confirmed, as well by the recovery of a patient in the hospital at *Calais*, as by that of a *Neapolitan* young woman, who had this disease to a violent degree. Small doses of this medicine, therefore, with a frequent use of the vapor-bath, and an occasional recourse to cordial, and purgative medicines, seem to be the chief remedies hitherto brought forward for this dreadful disorder.

TETANUS, or LOCKED-JAW.

THIS is an equally fatal complaint, and in this country nearly as little known as an infantile disorder, as the foregoing. In some instances, it has been confined to the jaw only, as in *Jamaica*; in others it has been attended with contraction and rigidity of other muscles of the face, and a peculiar fixedness of its features. Sometimes the rigidity has extended to the neck; and in one instance so completely over the whole body, that the limbs of the infant could not be bent so as to place it advantageously in a vessel, somewhat too small appropriated to a warm-bath.

In such instances of the locked-jaw as I have met with, the attack has not been earlier than the sixth, nor later than the ninth day from the birth, (excepting one instance, early on the tenth;) and as far as I could learn, the infants had not been costive, (as is reported to be usually the case in *Jamaica*) nor apparently unhealthy: some, I remember, were remarkably strong and lusty children. It seems somewhat to differ, therefore, from the disease termed *Jaw-Fallen*, in the *West-Indies*; and in one instance ap-

peared to have some resemblance to the catalepsy of adults.* The rigidity has stolen on in a more gradual way in some instances than in others, but has always been very great as far as it extended, from the moment it has been discovered; so that in instances where the mouth has continued sufficiently open to admit my finger, I could not thereby depress the jaw. In some, the eyes have been bloated, and the whole countenance much swollen.

THE CAUSE of this complaint has been differently conceived of; and in older children may be induced by various irritations, particularly by worms, especially one species of the tape-worm: but the tetanus now under consideration, attacking new-born infants, is, probably, owing to a certain state of the air, (as hath also been suspected in the *West-Indies*;) and the more so, as the disease appeared only once in the *British Lying-in* hospital during a great number of years, and then attacked several infants in a short time.—It has appeared again, however, in five or six instances during the last three years.

THE CURE is to be attempted by the warm bath; fomentations to the rigid parts; frictions with oil and camphire, and BATES'S anodyne balsam; blisters behind the ears, and to the nape of the neck; and asafoetida, opium, calomel, the bark, and aromatic confection administered internally. If these fail, trial may be made of more cordial and tonic remedies, as recommended by physicians in *North-America*, where the disease is more common than it is here; such as oil of amber, musk, and the cold-bath.

EPILEPTIC-FITS.

VERY few words on this complaint may suffice, as EPILEPSY, or *falling sickness*, is either pretty easily cured,

* A species of convulsion, in which every part continues in the position in which it has chanced to be, at the attack of the disease.

or usually continues through life ; and is too well known by this popular name to require a particular description : an account of the various precurrent symptoms would be equally useless in this work.—It may just be noticed, that the patient falls suddenly to the ground, and sometimes without any perceptible warning, or at all sufficient to secure him from injury ; and is usually much convulsed, especially on coming out of the fit, but frequently retains his senses through the whole.

THE means of CURE must be adapted to the different causes of the complaint. It sometimes takes its rise merely from foul bowels ; and certainly more commonly attacks children of a costive habit of body. It should then be treated agreeably to the directions already given in such cases, and especially with active and mercurial purges : after which, the bark, white vitriol, chalybeates, and sea-bathing may be serviceable. In other instances, especially in more advanced life, and towards the time of puberty, the epilepsy seems to be owing rather to a more sensibly nervous irritation. In such cases, blisters to the back of the neck may be useful ; and I have experienced much benefit from large doses of the powder of valerian, and from opium ; but could never entirely conquer the complaint by these means, when of long standing : the oil of amber, however, has, in several instances, perfected a cure in young subjects ; and of late, where that has failed, I have succeeded with musk.

In the worst cases I ever met with, in which the fits were very long and violent, and sometimes to the number of twenty or thirty in a day, and the disorder of many years standing, electricity has very soon rendered them weaker, reduced their number to three or four in a day, and gradually to one in six weeks ; but has not entirely

removed them. In such obstinate cases it is generally supposed, that the brain is affected by some local or permanent cause, and a perfect cure is consequently despaired of ; though I have known the fits abate greatly after having continued for twenty years.—Whatever tends to debilitate the system, I have found increase the number of the fits.

When this disease has attacked children of five or six years of age, and where no treatment has been serviceable, the complaint has very frequently disappeared suddenly about the time of puberty, and sometimes a year or two sooner. Where it does not, it will probably continue through life, and now and then prove suddenly fatal.

SAINT VITUS'S DANCE.

I SHALL be very brief also on this untoward disorder, which is equally well known; and though not often fatal, is like the former, I believe, rarely cured but in young subjects.

Worms, and other foulness of the bowels, in children, are likewise frequent causes of this strange convulsion ; in which different parts, and especially the extremities are put into continual motion, giving the patient a very awkward appearance, particularly in his walk.

If the CAUSE be seated in the first-passages, the complaint must be treated in the manner noticed under the preceding article ; and, indeed, in most cases, the cure should be begun by administering aloetic, or mercurial purges. But if the disorder appears to be owing rather to relaxation, as it sometimes is, the bark, chalybeates, and other bracing remedies, especially white vitriol, and sea-bathing, are very frequently successful. I have also known it immediately yield to electricity ; but in this case, it has

been attended with other symptoms of palsy, which have come on suddenly.—A perpetual blister over the seat-bone has succeeded in a late instance : Dry-cupping has likewise been thought useful.

TEMPORARY LOSS *of* SPEECH.

THIS complaint when it occurs in children, though it is not a common one, takes place between the fourth and seventh year of their age ; is only a transient loss of speech, and is a harmless affection : for though it may recur for a length of time, I believe it never degenerates into a permanent disease. It is rather a difficulty in articulating, than a perfect loss of speech ; lasts only for a few minutes, or at most, a quarter of an hour ; and recurs frequently in the course of a day. It is thought to be somewhat of the nature of the last mentioned complaint, and to be occasioned by worms, or other irritation in the bowels ; and sometimes by teething.

If neither the irruption of teeth, nor the exhibition of mercurial purges, and other remedies for worms should produce a speedy good effect, any advantage from other medicines is more doubtful ; but the long use of the cold-bath, or perhaps time only, whereby a child may acquire more strength, usually removes the complaint. It may be proper, however, to make trial of local applications of a stimulating kind during the fit ; of which remedies, the most innocent is a lump of sugar wetted with lavender drops ; and amongst the stronger, a decoction of the pelltory of Spain, as a gargle to the mouth. Should these little remedies do nothing, and the complaint anywise increase, electricity may be had recourse to with safety and propriety, by drawing sparks from the throat.

NIGHT-MARE.

IT will be sufficient barely to notice this affection, it being generally well known, and requiring very little to be done for it ; children either outgrowing the complaint altogether, or any occasional return of it, when older, being esteemed rather as constituting an unpleasant moment, than a disease requiring medical treatment.

The night-mare, probably, arises from a spasmodic constriction of the midriff, and muscles of the chest, taking place during sleep ; and occasions a sense and dread of suffocation, and of some huge weight lying across the breast. When children, who happen to sleep with a bed-fellow, awake under the attack, they are wont to say that their companion has lain with all his weight for a long time across them.

THE CAUSE of this complaint seems to be flatulency in the stomach, and indigestion ; and chiefly attacks children or young people of a delicate habit, and such as eat too freely of fruits, and especially such as are unripe ; or who are in the habit of eating much supper, a short time before going to rest.

The fits are of different duration, some children lying a much longer time in this unpleasant state than others ; but in all, some degree of palpitation of the heart, lightness of the head, tremor, anxiety, or lassitude remains for some time afterwards.

THE curative indications are to rouse and fortify. During the fit, volatiles and fetids may be applied to the nostrils ; and as soon as may be, a few drops of salvolatile, asafoetida, or other anti-spasmodic properly diluted, should be administered internally. Afterwards, clysters, bitter purges, or emetics, may be exhibited, as the state of the

first-passages shall indicate, and the cordial volatile medicines be continued. To these should be added bitters, with testaceous powders, or magnesia, assisted by a nutritious diet of easy digestion ; and cold-bathing, if not otherwise improper.

HICCUGH.

THIS has been ranked among children's diseases, but it is, by no means, a complaint of consequence, as it sometimes is in adults, though it is, indeed, a true convulsion. It occurs very frequently, however, in infancy, but seldom requires much attention ; as it more commonly comes on only after over-feeding, or in consequence of the over thickness, or sweetness of the food, and is one of their most harmless consequences : it offers another argument, however, for their prohibition. But when it depends on an acid state of the juices of the stomach, or occurs in long bowel complaints, the absorbent powders should be administered freely. Should it, however, continue for a length of time, the labdanum plaster may be applied to the pit of the stomach.

The hiccough is an affection very incident also to more advanced childhood ; but is equally harmless as in infants. It is well known, that it may be generally removed for the present, by any little circumstance serving powerfully to divert the child's attention at the moment, in a way of surprise, or otherwise. And it may not be amiss to attempt it whenever the hiccough may return, in order to obviate the influence of habit, by which this affection may be increased. Caution only should be had not to make use of such violent means as might occasion any considerable alarm ; which in children of an irritable habit, who are the more common subjects of the hiccough, might induce some

greater evil than the one intended to be removed. A less known, and pretty certain remedy, is a small quantity of any powerful acid; lemon-juice generally answers very well, but a tea-spoonfull of vinegar seldom or never fails in the accidental hiccough of youth, or of very old people.

SNEEZING.

THIS has likewise been mentioned by some writers as a complaint of young children; but it is certainly not a common one, and I have never met with it in the form of a *disease*. Should it so occur, however, some one of the antispasmodic, or nervous medicines, such as musk, castor, or camphire should be exhibited. But when *symptomatic*, it is a harmless affection, and may be induced by slight causes, such as looking too long against any strong light, as the fire, and especially the sun, or other very luminous body. It is a well known symptom of the measles, and of many common colds, but in neither requires any particular attention. It is mentioned here, only because I would not pass over a complaint that has at any time been ranked among the disorders of children, nor leave such readers at a loss, who being acquainted with the distinction between mere symptoms and diseases, might at any time be needlessly alarmed by it. If violent, however, it may prove of more consequence, when in conjunction with other causes, it may rupture some of the small vessels of the nose, and produce a slight bleeding; an accident that will be noticed in its place.

TEETHING.

THE Complaints arising during dentition may next be considered, many of the foregoing, it has been

noticed, being blended with it ; the first-passages and the nervous system being always more or less affected, and different kinds of convulsions thereby occasioned. The process of dentition is likewise not unfrequently an occasion of many complaints afterwards to be mentioned, such as cough, fever, the rickets, and even consumption ; under each of which heads, therefore, occasional references will be made to what will be advanced under this.

THE time of teething is, indeed, a most important period of the infant state, and subjects it to manifold complaints and dangers. Some writers, however, seem to think otherwise, and that teething is scarcely to be ranked amongst the diseases of infants ; whilst others have conceived the debate to be a mere dispute about words ; but the difference, nevertheless, extends much further. For though I would, indeed by no means, assert dentition itself to be a disease, and have made use of any such like expression merely in a popular way, yet am I confident it induces disease in very many infants of every habit of body, and more especially, however strange it may seem, in the apparently healthy and robust. Indeed, weak and even rickety children commonly cut their teeth easily, though often very late ; or if they should be harrassed by a purging, and other complaints, they, nevertheless, escape with their lives ; while very lusty strong children are frequently carried off suddenly at this period, unless the teeth happen to find a very easy passage through the gums. The system, during teething, being disposed to inflammation, such children much oftener fall into fever than the tender and delicate ; like robust adults, who are more disposed to inflammatory complaints, than those who are of a colder, but less healthy temperament : and it is by acute fever, or convulsions, that infants are carried off ; who are well known to survive a thousand lingering

and vexatious complaints, if the internal parts are sound : it may, however, be observed, that convulsions more rarely take place where a fever attends. There are also other circumstances that affect the process of teething, noticed from the days of HIPPOCRATES which seem to be well-founded : That infants cut their teeth more readily in winter than in summer ; that such as are rather inclined to be lean, cut them more easily than those that are very fat ; and children who are loose in their belly the most safely of all. The truth of the last of these observations there can be no doubt of. The period usually commences between the fifth and tenth months, and the process of the first teething commonly continues to the sixteenth at the least, and sometimes much longer.

As this is a subject that parents are inquisitive about, I shall subjoin a few words on the circumstances of this process. It almost invariably begins in the lower jaw, and in the front, or middle teeth. Usually two of these are cut, and then the two corresponding ones in the upper jaw. After two teeth in each jaw have appeared, it is in some instances a considerable time before the contiguous ones come out ; but sometimes, though not often, six or eight are cut in a hasty succession. The four double-teeth, or grinders as they are called, follow the eight front teeth, and usually after an interval of some weeks ; then the two dog-teeth, and the last of all of children's first-teeth, the two corresponding ones in the upper jaw, called the eye-teeth.

This wonted order in cutting the front-teeth appears to be owing to those of the lower jaw being less deep in the bone, as well as thinner and sharper at their points, and thereby likely to force their way before those in the upper jaw ; accordingly one, at least, of the front teeth in

the former, it has been said, is usually the first cut. The one opposed thereto in the upper jaw sometimes appearing next, rather than the contiguous one in the lower, seems to be occasioned by the friction of the tooth against that part of the upper jaw at which its antagonist is to appear. This attrition repeated every time the jaw closes, derives a greater portion of fluids to that part, increasing its natural action, and thereby forwarding the growth of the tooth ; while by the forcible and frequent pressure of the gum and nervous membrane against it, as soon as it has made its way through the bone, its irruption is further assisted. If the succession be otherwise, and a second tooth in the lower jaw be cut before one appears in the upper, as for the reason first given is more commonly the case, it is not unfrequently before many days ; and the two corresponding teeth, in that case, either follow in two or three weeks, in consequence of attrition, or else do not appear for some months : but whatever the period may be, they generally come forward before any more teeth are cut in the under jaw. It is usually some weeks, it has been remarked, before the other two front teeth in the lower jaw are cut ; and in a week or two afterwards, if there be no constitutional impediment, the corresponding ones in the upper jaw are commonly pushed forward, and for the reason given before for the early appearance of the antagonists to the two first cut teeth.

In children who are strong and healthy, this process goes on pretty much as above described, and the teeth are cut both easily and soon ; but in unhealthy and weakly infants the process is both slow and uncertain. Accordingly children sometimes cut their teeth irregularly, or cross, as it is called ; both by the teeth appearing first in the upper jaw, and also at a distance, instead of being contiguous to each other : this is accounted, and with some

reason, an indication of difficult, or painful teething. It may also be remarked, that the ease or difficulty of dentition may be guessed at, by the circumstances under which the two first teeth shall happen to be cut ; the succeeding ones frequently making their way in a correspondent manner. To all these general positions there are, however, various exceptions.

TEETHING is usually preceded and accompanied with various symptoms : the child drivels, or slavers much ; the gums swell, spread, and become hot ; there is often a circumscribed redness in the cheeks, and eruptions on the skin, especially on the face and scalp ; a looseness, gripings ; green or pale stools, or of a leaden-blue colour ; sometimes mucous, or jelly-like ; often thick and pasty ; watchings, startings in the sleep, and spasms of particular parts ; a diminution, or increased secretion of the urine, sometimes of a milky-colour, at others, staining the cloths in patches, as if it deposited a brown powder ; a discharge of matter, with pain in making water, which often mitigates the fever : in almost all cases, the child shrieks often, and thrusts its fingers into its mouth. A symptom less common than any of the foregoing, and appearing only in certain habits, is a swelling of the tops of the feet and hands : it is seldom, however, of importance, and goes away upon the appearance of the teeth. I have never met with it but in infants who cut them painfully ; and being seldom accompanied with a purging, it is likely may (in its stead) prevent that fever which is otherwise so apt to attend. In some instances, however, this symptom has been accompanied with considerable fever ; but in such, children have either been costive, or the stools been fetid and clayey, and the swelling of the extremities very considerable. Nevertheless, if there be no internal disease, this affection proceeds no further ; but whenever it may, it must

be treated as dropsy ; which will be noticed in its place, as succeeding sometimes to painful dentition. I have likewise, in a few instances, met with a transient palsy of the arms or legs ; which has even sometimes recurred as often as teeth have been making their way.—The above-mentioned symptoms are often followed by cough, difficult breathing, fits, fever, scrofula and universal decay ; and more rarely, the watery-head.

Strong and healthy children, it has been observed, cut their teeth earlier than the weak and tender : I have, indeed, known a rickety child, without a tooth at twenty-two months old ; whilst the strong, I have said, are more likely to suffer by fever. The fact, indeed, is, that the extremes of high health, and of debility are both dangerous ; the one being exposed to acute fever, or convulsions, the other to a slow hectic and gradual decay. Therefore air, exercise, food of easy digestion, in small quantities, and taken frequently ; an open belly, and every thing that has a tendency to promote general health, and to guard against fever, will greatly contribute to the safety of teething, and to children passing quickly through this hazardous period.

DIFFICULT teething is to be treated nearly as other acute diseases with local inflammation. If the body is at all bound, some opening medicines should be administered, and it has been observed, that even a considerable degree of looseness is useful. Diluting drinks are likewise very necessary, especially if the child does not suck. If much fever attends, the loss of a little blood will be necessary ; though children do not endure bleeding so well as they do other evacuations. If the propriety of bleeding with the lancet be doubted, a leech or two may be applied behind the ears, and is generally serviceable. Clysters are also

very useful, especially if there be retention of urine ; which will likewise call for the use of the warm-bath. Gentle sweats are also serviceable ; therefore antimonial wine, or Dr. JAMES's powder, may be given ; which besides opening the belly, often operate in this way : a blister should likewise be applied between the shoulders, especially if there be any disposition to fits. And, indeed, if stools do not afford some considerable relief, there should generally be some discharge from the skin ; since a purging and eruptions on the skin, when spontaneous, are the grand means of easy teething. A little discharge should, therefore, be kept up behind the ears, by rubbing the parts with Spanish flies, applying a thread as before directed,* or putting on a small blister ; which may be kept open. A Burgundy-pitch plaster laid on the back will sometimes suffice, which should be renewed every ten or twelve days, till the symptoms disappear, or the teeth come into sight. Even before this period, slight scarifications of the gums are very useful, by taking off the tention ; or if the teeth are at all to be felt, lancing them, as it is called ; the proper method of doing which will be enlarged upon below.

I shall close what I have to offer on the general plan of treatment, by observing, that the indications certainly are to assist the irruption of the teeth, and to moderate the inflammatory and other symptoms ; which must be treated according to their kind : all parts of the body readily consenting with the gums at the time of teething, but the nerves, the bowels, and the lungs, more particularly and importantly than the rest. It has been observed, that a purging is beneficial, and it may be proper to add, that it is surprizing how considerable it may be on this occasion, and how very bad the stools for many weeks together, and

* See Page 70.

a child happily struggle through ; though at another time, an equal degree of purging, with such bad stools, and constant fever, would prove infallibly fatal. The purging is therefore, not only to be cautiously treated according to the directions already given under that article, but is generally rather to be encouraged than suppressed. Very pale stools have been said to be not uncommon at this time, and are sometimes in vast quantity : I have known an infant have fifty in one night, at least by the account of a careful and discreet nursery-maid ; and from the quantity of feces that I saw the next morning, I had no reason to dispute it.

For the fever of teething, besides bleeding, the absorbent powders are eminently useful, and are, in various respects, calculated to afford relief. To these, sometimes a grain or two of Dr. JAMES's powder may be added at bedtime, which if there should be any thing amiss in the stomach or bowels will either vomit or purge ; but otherwise (it has been said) will promote a kindly sweat, which is always beneficial. Nitre is very often useful joined with the testaceous powders, or with three or four grains of the compound powder of contrayerva, or as many drops of the compound spirit of ammonia, as there may happen to be more or less fever ; nor is a drop or two of laudanum to be feared, if the bowels have been previously opened, the pain be very great, and the breathing not difficult.

Whatever, however, may render the use of laudanum necessary, a free discharge from the bowels, must still be preserved, when children cut their teeth with fever. The state of their gums must also be carefully attended to, or their fevers will be mistaken and attributed to cold, or other causes, when the source of irritation is wholly in the gums.

THE lungs it has been said, is one of those parts on which the irritation from teething is apt to fall, and when fixed

there, the symptoms bear an alarming aspect. A precise acquaintance with their true cause is therefore of the greatest importance ; or for the want of it an unsuccessful plan of cure will be adopted. I speak this from much experience, having known good physicians overlook the true cause of the inflammatory symptoms ; especially when children have cut the usual number of first teeth. This is known to be sixteen, but some children cut four double teeth in each jaw, instead of only two, making the whole number twenty.

In such cases, I have met with the most alarming symptoms ; soreness of the chest, cough, and great difficulty of breathing, with loss of appetite, continual fever, and apparent general decay. In this state, purging the bowels, and properly lancing all the suspected teeth, has given immediate relief ; and by keeping up the purging for three or four days, every threatening symptom has so thoroughly subsided, that in a fortnight's time, a child expected from day to day to die of inflammation, or fall into consumption, has been restored to its former health and spirits.

A principal indication, it has been said, is to assist the irruption of the teeth. This may be assisted by cooling applications to the gums ; by rubbing them with some hard, polished body, such as the coral ; or by dividing them with the lancet : which last is the only mean to be depended upon. Rubbing the gums, however, I apprehend, not only somewhat appeases pain, as adults sometimes experience in the common tooth-ach, but it also forwards the growth of the teeth, by drawing more nourishment to them ; as well as assists their irruption, by pressing the gum and nervous membrane firmly against their points. Suitable applications on this occasion may be, a little honey, or the syrup of white poppies ; or the honey may be lightly acidulated with the diluted vitriolic acid. Besides the co-

ral, a crust of bread, or a piece of liquorice-root, may be often carried to the mouth, and may sometimes be preferable, as they will yield a little to the pressure of the gums.

These means, nevertheless, and especially the coral, have been objected to by some modern refiners ; but the objections are certainly groundless, as in giving this direction we are only following nature. For the young of all animals who suck, as soon as the teeth begin to shoot are always strongly inclined to gnaw such things as afford a little resistance. This may be every day observed in domestic animals ; to prevent which in puppies, recourse is had to a ridiculous operation of worming, as it is called ; which rendering the mouth a little sore, may prevent them for a time from gnawing every thing that comes in their way ; and if their gums become easy, or teeth are cut the meanwhile, they have no longer any desire for it, but what arises from the playfulness of youth.

THE intentions of this work may admit, in this place, of a word on the subject of charms and amulets, the use of which though inoffensive, are alike futile in every complaint, and cannot be supported by the least shadow of argument ; insomuch so, that I am almost ashamed of noticing among them that very common one, the anodyne-necklace—But having been frequently seriously asked my opinion of it by people of every rank, and sometimes heard such marvelous effects attributed to the use of it, that it is hoped the reader will bear with this public declaration, that it is impossible, because out of the laws of nature, that a bit of dried bone hung around the neck, can remove pain, fever, and convulsions ; or assist the animal system in forcing the teeth through the solid jaw and gum, by any tonic, relaxing, or appeasing influence whatever, which the necklace itself not containing, certainly cannot communicate to the human body.

WHEN it is found necessary to lance the gums, (which is ever, at least, a *safe* operation,) it should always be done effectually, with a proper gum-lancet, and not with a needle, a thin six-pence, or such like instrument, which will not sufficiently divide the gum, nor the strong membrane that covers the teeth. The lancet should always be carried quite down to them, and even be drawn across the double-teeth. It is certain, that this little operation gives scarcely any pain, and the relief is at the same time often so considerable that the child immediately manifests it, by squeezing the jaws and grinding them together forcibly ; which proves the gums are not very sensible.

The most painful part of teething, and that in which children are most exposed to convulsions, is usually from the teeth cutting through the nervous membrane that covers the jaw immediately under the gums. This, I apprehend, in difficult dentition is often not cut through, but is forced up before the teeth, when they are even in sight under the thin gum ; hence it is, that cutting through the gum is so very often useful, and takes off fever and convulsions, which severe symptoms could not arise merely from teeth piercing the gum, which it has been said is not a very sensible part. At other times, the pain and fever seem to arise from almost the very first shooting of the teeth within the jaw, and then they will very often not appear for some weeks after the gums have been lanced ; and parents are therefore apt to conclude, the lancing has been unnecessary, if not improper. I am, however, convinced from experience, that this little operation, though not in the general esteem it ought to be, is often inexpressibly useful, and appears to have saved many lives, after the most dangerous symptoms had taken place, and every other mean of cure been made use of. The mere

bleeding from the gums is capable of affording some relief, as it is frequently found to do in adult persons distressed with the tooth-ach. And I cannot here forbear expressing my surprize, at the fears some people entertain of lancing the gums, and their delaying it so long, if not altogether rejecting it, though no evil can possibly arise from the operation. On the other hand, its advantages are so great, that whenever convulsions take place about the usual period of teething, recourse ought always to be had to it, after an unsuccessful use of other means, though by an examination of the gums there may be no certain evidence of the convulsions being owing to such cause ; the irritation from teething, it has been remarked, sometimes taking place in a very early stage of the business. At any rate, (it is repeated) the operation can do no harm, even at any period ; and should the shooting of teeth be only an aggravation to the true cause of the disease, lancing the gums must be attended with advantage. But should teething be the proper and sole cause, it is evident how fruitless any other mean of relief must frequently be : for should convulsions, for instance, take place from a thorn run into the finger, or toe ; the proper indication of cure, by an immediate extraction of the thorn, and the futility of other means, must be equally obvious.

The operation may also be safely repeated, the scars doing no kind of harm. This, however contrary to popular prejudice, may be very evident, not only from the fact of infants cutting their first teeth very easily some weeks after being lanced, but also from the circumstances under which the second teeth are often cut. At this period, children from their more advanced age, and decreased irritability, are less subject to fever, and evidently appear to suffer far less pain, than in the first teething,

though the second teeth often have to make their way through much more considerable scars than have been made by a lancet, from the gums having been lanced prematurely. This fact is likewise established from the many instances in which dentists have thought it expedient to draw out the first teeth long before the second are prepared to take their place.* The objection to lancing the gums from any apprehension arising from the scars, is, therefore, altogether ill-founded; and indeed, it will be frequently necessary to lance the gums several times, especially on account of the extraordinary difficulty with which some infants cut their double teeth, which are furnished with two or more knobs, or points. Purging, fever, and even convulsions will sometimes arise from only one point of a large tooth offending the nervous membrane that covers it, and being nearer the surface than the other points, the lancet may sometimes not completely divide the membrane that lies over the rest, (or it is afterwards healed;) and this part not being injured by the tooth, the symptoms subside on having divided that portion of the membrane that was inflamed. But in a little time, another point of the same tooth is found to irritate this sensible part, and calls for the like assistance, which again removes all the complaints. I have seen the like good effect from it, when children have been cutting a number of teeth in succession, and have bred them all with convulsions. Nothing having relieved or prevented these terrible symptoms but lancing the gums, which has re-

* This practice is, by no means, adduced in a way of approbation, but merely for the sake of the inference drawn from the fact; the writer being persuaded, that the succeeding teeth are thereby frequently ill-placed, by one tooth appearing long before others, and growing so large as not to allow proper space for the rest.

moved them every time it has been done, one or more teeth appearing a day or two after each operation.

In such cases, it will often be proper to draw the lancet along a great part of one, or even both the jaws, instead of over only one or two teeth, as is commonly done. Some writers, however, have advised, not to cut quite down to the teeth, but only to scarify the gums, unless the teeth are very near ; it being suspected, that the instrument often injures them, and produces caries, or decay, which, it is thought, will be communicated to the succeeding set of teeth. But this is a mistaken theory, owing to inattention to the true state of the teeth ; which are perfect bone, and covered with a strong enamel, long before they get through the gums. The manner of the second teething of children likewise forbids such a fear ; for though the first set, (which are designed by nature to be only of short duration) should actually be injured by the lancet, the succeeding ones are not at all likely to be affected by the carious state of the former. For the first teeth of infants constantly decay at the roots, and are loosened and expelled by that means, when left to nature alone ; and though, in many instances, the upper part of the new teeth are for some time in contact with the decayed bottoms of the first set, they never suffer from this circumstance. I have dwelt the longer on this head, because writers are not agreed on the subject, and it is a matter oftentimes of no small importance. I have also imagined, that parents, might not only be gratified by the information, but be reconciled to the practice from conceiving rightly of the reasoning upon which it is founded. I have, however, written from *experience*, and am *perfectly satisfied* of the propriety and safety of what I have ventured to recommend.

Children will sometimes have ulcerated gums in teething, and more frequently where they have not been lanced, which are easily cured by keeping the body open, and touching them with astringent applications. As much white vitriol, or roche-alum as will give a moderate roughness to a little honey, is usually sufficient for this purpose. But should this fail in any case, it must be treated as directed under the head of Canker.*

THE DIET of infants at this period, remains to be noticed : and it should be a pretty general rule to abate a little of the usual quantity of the food, and to increase the quantity of drink, unless the child is very weakly, or every thing is going on perfectly well : or if the child be at the breast, a similar regard ought to be paid to the diet of the nurse.

FEVER.

HAVING considered the more early disorders of children, and especially such as are sometimes connected with febrile affections ; it will now be proper to treat more distinctly on the species of fever induced by them, or otherwise incident to childhood.

In a view to the latter, it may, however, be observed, that though some writers have supposed infants to be as liable to fevers as adults, and from the same causes, I have by no means, found it so, and I wish parents to take comfort from the consideration ; having observed for many years, as well in the hospital, as in private practice, that infants do not readily take common fevers, though exposed for a long time to that contagion which has appeared to affect adults around them. Their fevers are also of

a short duration if properly treated, unless the few that arise from some more permanent, irritating cause.

Young children, however, are disposed to certain febrile complaints, and to some peculiar to themselves ; which I shall bestow some pains in specifying, as well as pointing out the treatment most adapted to each.

THE more frequent CAUSES of fever, are teething, foul bowels, worms, glandular diseases, some eruptive and very contagious complaint, or taking cold ; and are often attended with symptoms peculiar to children. Some of these disorders have been noticed already, and others are similar in many particulars, but the fever from the last mentioned cause less than the rest ; and being as commonly suspected as any, may first be considered.

FEVER *from taking* COLD.

IF the cold be severe, the source of this fever will be usually manifest ; as the feverish heat will always be attended with a cough, hoarseness, and some difficulty of breathing, and often with running at the nose, or eyes, which is the case in no other fever, at its commencement, except it be the measles ; which will be attended likewise with violent sneezing, and a peculiar appearance of the eyes not often met with in a common cold.

THE TREATMENT of this fever in children is usually as manifest as its cause. Should the heat be considerable, the cough violent, and the difficulty of breathing very great ; a blister will always be safe and expedient, and may be applied at the pit of the stomach instead of the back ; as being both less painful under any motion of the body, and more readily got at to be dressed, or for the application of fresh cloths, where the discharge happens

to be considerable. But if the fever and difficulty of breathing should not be very much abated by the blister, children, though within the twelvemonth, will bear and even be greatly benefitted by the loss of a little blood; and if not by the lancet, at least by the application of two or three leeches, as I have frequently seen, especially if the head be affected; and I mention this again because it has been thought so highly improper for infants. But I can venture to say, they will be much less reduced by it, than by the continuance of the fever, which the loss of a little blood will, in many cases, shorten by two or three days: it is also sometimes absolutely necessary, as in pleuritic cases, in which it may even be repeated with safety and advantage. And this becomes the more expedient, from the consideration that not only inflammation, but true tubercles of the lungs are formed at a very early age. Oily medicines, likewise, made into a neat emulsion, are often useful, especially if the child be not suckled; but they should be preceded by an emetic of wine of antimony, as there is usually much phlegm on the stomach; children never coughing it up. In many cases it is also necessary to repeat the emetic, as often as the phlegm in the throat is collected in such a quantity as seems to impede respiration. The body at the same time should be kept perfectly open, and this purpose is usually well answered by smaller doses of wine of antimony, or of Dr. JAMES's powder; but if they should fail to procure stools, as they sometimes will, where there is much fever, they rather do harm than good, unless a little manna, or rhubarb be joined with them.—Should the head be much affected, putting the feet into warm water, or applying a milt to them just taken from the animal, are admirable remedies; and I think have sometimes saved a life after all hope has been given up. Or a little fresh

leaven, or dough, may be spread thinly over the soles of the feet. If the fever be accompanied with much cough, and attended with difficulty of breathing, which comes on by fits, both may be greatly relieved by giving from five to ten drops of the compound spirit of vitriolic ether, (according to the age of the child) every six or eight hours. But in the absence of fever, the breast-milk is often as good a balsamic as can be had; or if the child be dry-nursed, a little syrup of balsam is both pleasant and useful.

Though the severer treatment abovementioned is indispensable when the cough, difficulty of breathing, and degree of fever are considerable; it is proper here to remark, that I have known children of two or three years old seized with a sudden difficulty of breathing in coughs arising from common colds, where the *fever* has not been proportionate to the other symptoms.* In *such* cases, the difficulty of breathing may arise from bile on the stomach; and it may therefore be prudent previously to bleeding and a blister, to give a small dose of Dr. JAMES's powder, which will pretty certainly act as a vomit, if our suspicion has been just; and will remove that threatening symptom very soon.

It is very necessary here to observe, that though preparations of antimony may, perhaps, be safely administered under the eye of very attentive parents, they are very powerful medicines, and not to be prescribed without great caution.† But where such medicines are found to agree, and keep the belly open, children frequently stand in need of

* The like symptoms, together with *much fever*, it has been observed under the head of teething, will sometimes arise during that period. See page 115, 116.

† I have known a nurse propose giving half a grain of tartarised antimony to an infant of a few days old.

no other ; though where the fever has been very considerable, I have given nitre to advantage to infants of only a few months old, as was mentioned in the chapter on teething. In the little fevers arising from taking cold, to which some children are very liable, I often join it with Dr. JAMES's powder, (in the dose of one or more grains, proportioned to the age) and three or four grains of the compound powder of contrayerva, lowered with oyster-shell powder ; which I find to be a medicine exceedingly useful, when given in time.

FEVER *from* FOULNESS *of the* BOWELS.

IF the fever be not owing to taking cold, to worms, teething, or some eruptive complaints, (whose several symptoms are noticed in their place ;) it will generally be found to arise from some foulness in the first-passages ; in which case, opening the belly, and afterwards giving a puke and the testaceous powders, usually remove it. On this account, great attention ought to be paid to the state of the bowels, and not only in regard to the *number* of stools, but their *kind*. This should be a maxim with all those who have the superintendence of children, especially infants, under whatever complaints they may labour ; as a principal indication must be taken from the state of their bowels. In the present instance, if a laxative and emetic have not removed the fever, opening medicines must be continued a while longer, especially castor-oil ; but if the stools are very offensive, the powder of scammony with calomel, or small doses of calomel alone, are the fittest purge ; though they require to be administered with caution. I have known not only convulsions, dilated pupils, and drowsiness, but also paralytic affections, attended with great pain and

continual fever, induced merely by a foul state of the bowels ; where, after the complaint had been unsuccessfully treated as a fever of another kind, all the symptoms have been removed at once by an active purge. At other times, infants of only three or four months old will often have very considerable fever, and fits, with so costive a state of the bowels as to require strong purgative medicines to be repeated for several successive days, with clysters and the warm-bath, before the obstruction can be removed, or the fever will at all abate. And I doubt not, it may be matter of surprise to those who may not frequently have met with such cases, to find how great a quantity of purging medicines has been taken by a tender infant before one proper stool could be procured, and how certainly a relapse will take place, if the opening plan be not persevered in, in the manner recommended.—In less urgent cases, and especially in very young subjects, much gentler means will usually succeed, and after the belly has been once or more well opened, many common fevers will nearly subside ; after which, it will frequently be proper to return to some of the absorbent powders, in one form or other.* But should the fever withstand these common remedies, or be found to increase, it will be necessary to return to some of those before recommended, or, what is often very useful, little draughts with lemon juice and salt of hartshorn, in which the latter is left a little predominant ; or three or four of the sal volatile drops, in barley-water, four or five times a day.

In many little fevers of infants, where the cause may not be so obvious as it commonly is, I have experienced very good effects from persevering in the use of small doses of the antimonial wine given in a saline draught ; this medi-

* See Note, page 53.

cine sometimes acting as an emetic or purge, and at others as a stimulant and gentle sweat, possesses very peculiar advantages. But the manner in which this medicine is prepared according to the new pharmacopœia, under the title of *tartarised* antimonial wine, renders it exceedingly preferable to the common antimonial wine; and may be given instead of Dr. JAMES's powder, or the antimonial powder of the shops, in the dose of five or six drops, to a young infant; or in the dose of three, instead of five drops of the old antimonial wine. It will be necessary, however, that the bowels be somehow kept open under the use of this, and of every preparation of antimony, as hath, indeed, been already noticed.

THERE is a fever to which children long after the time of teething are liable, that is of no marked type; which though it turns out to be owing to foul bowels, arises more from the acrid secretions from the liver, or other glands, than from a collection of feces, or a costive habit; and is more remarkable for the great *pain* in the bowels than for any other symptom.

It commences like other little fevers in children, and is of uncertain duration. The pulse is oftentimes exceedingly quick; the breathing bad; the tongue dry and brown; with a cough, more or less violent, throughout the complaint. On this account, it is in the beginning often suspected to be owing to taking cold; but the cause, I believe, is always in the first-passages.

Though procuring stools freely for several days is found to abate the fever, yet the child is at no time entirely free from it, though it frequently remits, or abates; which may distinguish this fever from others.

The stools, which at first are very offensive, in a little time become very numerous, mixed with a great quantity

of slimy matter, and are attended, or followed, by very great pain. This has sometimes discouraged practitioners from further purging; but where no other source of fever is discovered, and cooling and antimonial medicines are found to afford no essential relief, the exhibition of repeated purges has proved the surest remedy. To this end, two or three grains of calomel, taken over night, and senna-tea the next morning, has seemed to have the best effect, in the earlier stage of the disorder; but after the severe pain and slimy stools have taken place, castor-oil may be substituted, and given only every second or third day; composing the bowels, and taking off the spasmodic pains, by repeated doses of laudanum, or syrup of poppies, on the intermediate days, and especially on the nights after the operation of purgatives.

This plan should be continued until the fever entirely subsides, (which will sometimes run out to two, or even three weeks) and the appetite for food returns. Previously to which, some light bitter, given in a saline draught or almond-milk, or with the compound powder of gum tragacanth, in the intervals of purging, will tend to comfort the bowels, and hasten the natural inclination for food, to which there is often a long aversion.

I HAVE sometimes met with a fever, more remarkable for its being attended with inflamed and sometimes painful tumors, than for any other symptom peculiar to it. These are seated chiefly on the legs, and particularly along the shin-bones; and rise in a day or two to the size of a nutmeg. They are marked with all the appearance of abscesses, feeling as if they contained matter, and on this account they put on a formidable aspect to such as may not often have seen the disease; but what is remarkable, they never, I believe, come to suppuration, unless irritated by the

clothes, or other means ; but disappear again in a few days, though the fever sometimes continues. The like appearances have been met with in adults, especially females ; though perhaps more commonly in children from three to ten years of age ; but are not peculiar to scrofulous habits, though the tumours have very much of a scrofulous appearance and feel. They seem, indeed, to be conjoined more frequently with that fever which attends a foul state of the bowels, than with any other ; which therefore requires repeated purging, especially with calomel : and on this account, that preparation called the powder of scammony with calomel, is a very suitable one. Saline draughts with the compound spirit of vitriolic ether may be given on the intermediate days, and in the end the bark is commonly useful.

These appearances have sometimes been preceded by scarlet spots, or patches, resembling those observed in malignant fevers, as was noticed under the article of rashes.*

ON the decline of some fevers, especially those arising from foul bowels, it is not uncommon to see an eruption on the skin, resembling that called the red-gum in the month, and sometimes even the thrush will make its appearance, though the infant may have had that complaint before ; which are marks of the great disturbance the first-passages have suffered, and of the consent they have with the skin : the former, it has been said, is always a favourable indication, but the observation does not hold good in regard to the thrush.

AT the decline of certain fevers of no precise type that have lasted for ten or twelve days, (and sometimes after the scarlet-fever) great pain of the neck has sometimes taken place, attended with a little swelling of the part, and

* See Page 48.

great tightness of the muscles, drawing the head forcibly to one side. A general debility, and want of appetite has continued, though the bark has been administered, and seemed no wise to disagree. In this state, fomentations and poultices applied to the neck, together with some volatile embrocation, has soon removed the contraction, and pain; after which, children have recovered, as on a sudden, their appetite and spirits. During very cold weather, however, I have known a slighter degree of pain and stiffness of the neck, with a little fever, return a week or two afterwards; possibly, from taking cold, and as I have thought, from improper food. The antimonial powder with saline draughts, and a repetition of the applications to the part, have in such case had an immediate good effect.

FEVERS in children of three or four years old, particularly in certain seasons, are found tedious of cure by any of the above means, and like those of adults require the bark (especially under the recurrence of the thrush;) which should be administered in a light decoction, three or four times a day, in such doses as the symptoms may require.

REMITTENT-FEVER.

SOME writers have spoken of a fever under this title, which differs little from that I have already described as arising from a certain foul state of the bowels.

Indeed, it is well known to practitioners much conversant with the disorders of children, that various febrile affections differing in degree, and the time of their continuance, originate from the state of the first-passages; but as the treatment is similar in them all, varying chiefly in regard to the strength or other circumstance of the purging medicines exhibited, it would be equally unnecessary and

perplexing to multiply names, where no essential distinction subsists.

The present chapter therefore is added only to denote a fever of this kind, (which under this name, has been much insisted upon by some writers;) which constantly remits and increases again, sometimes for three or four weeks, or even longer, and is attended with the remarkable symptom of picking at various parts of the body until they are made to bleed, and even become very sore, particularly the fingers, nose, the lips, or the tongue. But this fever being equally remarkable for being always, I believe, void of danger, it is necessary only to remark, that it seldom attacks children under four years of age, nor upwards of ten; and that although it has been distinguished into the acute, slow, and low infantile remittent, it requires much less variety of treatment than such distinctions seem to import. The proper, and always successful plan, being confined to the repeated exhibition of some gentle purgative medicine, or light cordials, when accompanied with much languor; as is not unfrequently the case.

MESENTERIC-FEVER.

ANOTHER cause of fever has been hinted at, which is obstructed glands, especially those of the mesentery, (or connecting membrane of the bowels) which is studded with them; and is often a fore-runner of the true hectic fever, or fatal wasting.

It, indeed, frequently arises from scrofula, which then discovers itself by other marks; and will require its peculiar treatment. But there is an early stage of glandular obstruction in the mesentery, and of the fever here alluded to, that is often falsely attributed to worms; and

will not therefore yield to mere purgative medicines. It attacks children from the age of three or four years, (though the foundation is often laid much earlier) the fever remitting, and sometimes intermitting irregularly. It is always attended with its appropriate symptom a swelled belly, and usually with loss of appetite, and pain in the bowels ; the latter sometimes taking place, more or less, every day, or is generally more violent if the child be a day or two free from it.

After opening the bowels, half a grain, or a grain of calomel may be given to advantage, two or three times a week, and on the intermediate days small doses of prepared natron, either alone, or neutralized with the juice of lemons, or in some instances partially so. If the belly be very costive, as it often is, an infusion of the burnt sponge and senna* is more effectual than any thing. When the fever has abated, some light bitter, as of chamomile flowers, is useful to brace the stomach and bowels ; and to prevent a relapse, it will often be found necessary to administer some chalybeate.

BUT as the mesenteric fever, from its great fatality and frequency, cannot fail to interest the reader more than most others, it may be proper to consider it a little more distinctly in some of its principal stages ; in each of which its nature and treatment sometimes materially differ. For before the mesenteric glands become much enlarged, or the fever is continual, (which rarely take place till the belly has been for some time swelled and hard ;) whilst the appetite continues, and the first digestion is but little impaired, and no purging has taken place, the opening mixture of sponge and senna, with a few doses of calomel, and afterwards bitters and chalybeates, are the only reme-

* See Page 72.

dies very likely to be called for ; and almost always succeed, if duly persevered in. In this state, the disorder may still be considered as in its first stage, and of which an unusual costiveness, the hardness and recurring pains in the belly, and a remitting fever, are the principal symptoms. The design of this work, however, will not allow of a particular detail of the many others that attend this fever through its various stages ; but in general, it may be said, that indigestion ; costiveness or purging ; irregular appetite ; flushed cheeks, or a total loss of colour ; impaired strength and spirits ; remitting fever ; and a hard and swollen belly, with emaciated limbs, are amongst the more constant symptoms attending, at one period or other of the disease.

This being a glandular complaint, not only are the glands of the mesentery affected, but I have found those of other parts, and especially of the lungs, in a very morbid state before any of those symptoms of inflammation have been noticed, which are constantly met with, in similar cases, in older subjects.

Children are liable to this fever till they become eight, or ten years old, (and in scrofulous habits much longer ;) it being often a consequence of the long continuance of almost any of the preceding complaints, especially those of the first-passages and teething, as well as of the measles, and a few others ; of which that from teething will be separately considered. Among the poor, it is too frequently owing to a coarse and unwholesome diet ; from whence arise indigestion at the stomach, and a consequent vitiated chyle, (or white blood*) with fulness, or obstructions in some of the internal glands, or their attendant lymphatics.

* The nutritive parts of the food destined to recruit the blood.

As preventives, therefore, good air, exercise, gentle frictions, an easy dress, frequent washings of the body of young children with soap and warm water ; the cold-bath in older children ; and especially a light and nutritious diet, with such mild aromatics as may assist digestion, are some of the principal and most efficacious means.

But when this disease is completely formed, it calls for the most powerful remedies ; and such have happily succeeded in several instances, wherein formerly little hope had been entertained.

As it would tend only to perplex the reader to enumerate the many less important symptoms occurring in the different stages of this long disease, especially such as arise from some peculiarity of habit ; so will it be necessary to confine these observations to the more general plan of treatment, without particularly noticing a variety of occasional remedies, which such symptoms may at different periods require.

IN a general way, the principal indications are to remove the obstructions by effecting a resolution of the hardened and obstructed glands of the mesentery ; to carry off this viscid matter ; and lastly, to strengthen the system, and establish a good digestion, as well by means of proper diet as by medicine. To accomplish these intentions, the class of attenuants and deobstruents ; purges and emetics ; and bracing remedies, must be had recourse to, in a certain order.—But the proper direction of the means, in this and other fevers I have specified, will require the superintendence of some medical person ; and are, therefore, enumerated, only in the view of offering general information ; which may be useful to some families, in particular situations and circumstances.

Amongst the first, and as general deobstruents, are mercurial and antimonial remedies, neutral salts, soap, steel, and hemlock ; to all which may be added, electricity.

Calomel is, perhaps, one of the fittest mercurial preparations, and may be combined with some purgative medicine, and given for several weeks, till there shall be some favourable change in the feel and size of the belly.

The lightest preparations of steel are usually preferable, such as its tinctures, or the salt, or merely some chalybeate water ; which will act both as aperitives, and tonics, or bracing remedies. Amongst antimonials, the kermes mineral is found by experience to be more generally useful than any other preparation.

The Evacuants mentioned as proper in this disease, were emetics and purges ; to which may be added medicines provoking gentle perspiration. The two former are more essentially necessary ; but must be adapted and carefully dosed, agreeably to the state of bowels of the patient. As a purge, rhubarb and tartarised kali are generally the safest and most effectual, and may be persevered in for the greatest length of time ; or rhubarb and polychrest salt ; which, whenever mercury may not be preferred, should be exhibited daily for several weeks, and will sometimes restore the patient without recourse to any other means, when the disorder is not of long standing ; being at once both a purge and an efficacious deobstruent.

Among medicines promoting insensible perspiration, are the sarsaparilla, or a more compound decoction of the woods ; which may be taken together with any of the abovementioned remedies.

The last means recommended were bracing medicines, which can very rarely be dispensed with ; since although

the obstructions should actually be removed, the emaciated state to which the patient is generally reduced, peculiarly calls for such remedies, especially with a view to strengthen the stomach and alimentary canal, and promote a good digestion; the only means of obtaining a bland and nutritious chyle, by which the body may be preserved in good health. To this end, the bark, steel, the cold-bath, (neither of which, however, and especially the latter, must be attempted till the obstructions are removed;) light bitters and aromatics are the principal remedies; to one or more of which, recourse may be had, as the degree of remaining fever, and the state of the bowels may point out. To these may be joined daily frictions, especially of the belly, limbs, and back-bone; or the common soap-plaster, or one composed of ointment of marsh-mallows, gum ammoniac, and oil of chamomile, be applied over the whole belly.

It has been already hinted, that the diet ought to be of the lightest and most nutritious kind, and carefully adapted to the age and other circumstances of the child; who, if at a due age, ought in many instances to partake of light white meats, as well as vegetables, and plain jellies; but always avoiding fat and greasy aliments, pastry, and whatever may not be duly, as well as quickly digested, or will not form a bland and nutritious chyle, however readily they may get out of the stomach.

Though it has been said, that merely purging with calomel or rhubarb, for a length of time, will in some instances succeed, and in others, some one of the above remedies may be more adapted to the patient than the rest; yet more commonly, as before noticed, each of them will be useful, at one period or other of the complaint, and sometimes the union of several: but above all,

purging is always the most essential to the cure of this dangerous disease. And though it is oftentimes attended with costiveness and a voracious appetite, it is, at others, accompanied with a loathing of all food, and frequent stools, which do not reduce the belly, but too often deter from the use of active, or repeated purges; without which, however, experience proves there can be no prospect of success, after the belly has once become enlarged. I shall close these observations with offering the following form, which in a general way I have found very suitable. It should be continued for a length of time, taking care that the bowels be kept properly open.

TAKE of Calomel, from one to two grains; powder of Ipecacuanha, from the half of a grain to a grain; and of ginger six grains. Mix all into four pills, with a sufficient quantity either of the aromatic, or the opiate confection, as the more costive or open state of the bowels may direct. Let one of these pills be taken every night, or every other night, or both night and morning, as the age and strength of the child may allow.—Together with this pill, hemlock will sometimes be very serviceable.

HECTIC FEVER, *and* WASTING.

NOT a few both of the preceding and following complaints are sometimes found to induce a confirmed hectic fever, and wasting of the whole body; called by some writers the atrophy of sucking-children; though it often comes on too late properly to admit of the name. I have nothing new, indeed, to offer on this disease when it is far advanced, unless it be by way of encouragement to hope for a better issue in the hectic fever, under certain circumstances, than we are wont to expect.

This fever, as it is apt to arise from other complaints, is very often owing to their having been imprudently treated, or imperfectly cured; especially by suppressing some eruption or discharge from the skin, or incautiously stopping a purging, during the time of teething. In such cases, and, indeed, whenever the hectic fever is of some standing, the mesenteric glands become indurated, greatly increased in size, and often suppurate; the belly getting large, though the limbs and other parts become emaciated; which state has been considered in the former chapter, and has been shewn to be curable, or otherwise, according to the degree of hardness, and the length of time it has existed. But there is sometimes a threatening appearance of hectic fever, where, nevertheless, nature effects a salutary and wonderful change, and will restore the emaciated infant as from the very jaws of death. And this, indeed, is often the work only of nature, art doing no more than superintending, and preventing her being counteracted by the use of improper medicines, or diet.

Nature alone will, indeed, oftentimes effect wonders for infants, and far beyond any thing to be expected in adults, if she be not officiously counteracted. And the reason is obvious; it being well observed by a great man, and a good physician, that "there is, in truth, a greater luxuriancy of life and health in infancy, than in any other period in life. Infants, it is acknowledged, are more delicately sensible to injury, than those advanced in life, but to compensate this, their fibres and vessels are more capable of distention, their whole system is more flexible, their fluids are less acrid, and less disposed to putrescence; they bear all evacuations more easily, except that of blood; and, which is an important circumstance in their favour, they never suffer from the terrors of a distracted imagina-

tion. Their spirits are lively and equal; they quickly forget their past sufferings, and never anticipate the future. In consequence of these advantages, children recover from diseases, under such unfavourable symptoms as are never survived by adults. If they waste more quickly under sickness, their recovery from it is quick in proportion, and generally more complete than in older people; as diseases seldom leave those baneful effects on their constitutions, so frequent in adults. In short, a physician ought scarce ever to despair of a child's life, while it continues to breathe."—In further support of this sentiment it may be observed, that their complaints are not often attended with acute fever like those of adults, which however salutary in a few instances, is more commonly disposed to break up the system, than to rectify the machine.

THE above mentioned salutary turns in the true hectic fever, as far as I have observed, are chiefly in that species of it arising from worms, or teething, which I promised to notice particularly; and in which I have known recoveries after hope had long been given up, and all attempts been laid aside. There is, indeed, an atrophy, or universal decay in infants, for want of the breast, or from the unsuitableness of it, (which is the true atrophy of sucking infants) or of whatever else may be the child's ordinary food, (as I shall instance in another place;) but this is not usually attended with fever, and is to be cured merely by making that change, which the nature of the different occasions points out. Some remarkable recoveries have been noticed also in the worm-hectic, and attributed to the free use of that preparation of mercury called quick silver with sulphur, carefully prepared: but I have seen none so marvellous as in the tooth-atrophy. In this, I have known children after being reduced by purging, and

other complaints, lying for *three months together* in the cradle, scarcely fit to be moved, with continual fever, flushed cheeks, emaciated countenance and limbs, a large belly, incessant cough, and almost without taking any nourishment, recover, as it were in a few days, upon rapidly cutting half a dozen teeth.

AFTER what I have said on this fever, it will not be expected I should offer much on the head of medicines ; I shall therefore only observe, that the chief object in this advanced stage of the disease is an attention to the state of the bowels. This will be found to vary frequently ; sometimes calling for restraining, and at others, opening remedies. With these views, SYDENHAM'S* rhubarb beer, and the testaceous powders, are good medicines ; the former as a very gentle laxative, and the latter for acidity and a lax state of bowels. To these may be added, the artificial *Seltzer*, or *soda* water : also purging with mercury, if that has not already been done, should even now be attempted, since children in this state will often bear stronger doses of purging medicines, and more frequently repeated, than under any other circumstances.—Attention, likewise, should be paid to the diet, which ought chiefly to be of milk, rice, semolina, and such like, with light puddings ; but above all, children should enjoy plenty of fresh air, and take as much exercise as their degree of debility may allow of.

* Take of choice rhubarb sliced, two drachms ; let it be put into a glass bottle, well stopped, with a quart of small-beer, or any other liquor the child may make use of. This medicated beer is to be his ordinary drink. When this quantity is drank, a second and a third quart of beer may be poured on, as before ; after which the rhubarb will commonly have lost its virtue. Should the beer first poured on be too much impregnated with rhubarb, and purge too much, another pint may be added presently after the first is drank up.

SCARLET-FEVER, *and* ULCERATED SORE-THROAT.

WHENEVER the Scarlet-fever becomes very general among adults, children rarely fail being attacked by it, in great numbers, and frequently sink under it. It is, indeed, rather a child's disease, and very contagious amongst them, but is not often communicated from them to adults.

Even the mildest species should be carefully distinguished from the true inflammatory affection of the tonsils, which it will sometimes resemble in its first stages : but the genuine marks of the two diseases, and the cast of the epidemics, (or general complaints) reigning at the time, will direct medical men, who alone are equal to the treatment of this disease unless it should prove very slight. In less certain cases, a middle course should be taken, till the characteristic symptoms of the particular species shall become more evident.

There is, however, a scarlet-fever that is not attended with any affection of the throat, though not much insisted upon by late writers, which is attended with a harder pulse, and other symptoms of an inflammatory disposition ; but nevertheless, in every instance that I have met with, calls for the same general treatment, only more cautiously adapting the necessary cordials and bracing remedies to the degree of fever, especially in the commencement of the complaint.

The scarlet-fever of every species begins with the common symptoms of fever, often with languor and disposition to fainting, sickness, a quick pulse, and pain in the head. The eyes are inflamed, and where the throat is affected, there is frequently a stiffness of the muscles of the neck very early in the disease, which is soon followed by some

difficulty in swallowing. This affection of the neck should be carefully inquired into, especially in younger children; the soreness of the throat being sometimes not complained of in the most severe attacks of the disease, until but little prospect remains of any mode of treatment being attended with success. The fever generally increases in the evening, and is often accompanied with transient fits of delirium; but some remission takes place towards morning, with sweating; and on the second or third day the efflorescence appears on the skin, and generally first on the face, neck, and breast.

At this time, the parts tumefy, especially the hands and feet; the patient complains much of pain in the head; is either drowsy or very restless, and is at times delirious; the tongue is in the beginning very white and dry, afterwards becomes foul, and then of a florid red. About the fifth day, there is usually a remission of fever, and the eruption then beginning to scale off, disappears about the seventh. If the disease has been violent, the patient is about seven days more in a low state; and it is oftentimes a fortnight longer before he recovers his strength and spirits, and in some cases, is distressed with foul abscesses on the outside of the neck. In other instances, after the efflorescence has dried off kindly, an appearance resembling the true gangrene has sometimes seized the whole of the soft palate, and fever has been rekindled; but the parts recover their natural appearance after a few days, without any eschar being thrown off.

THE nature of this work requires only to observe, that the method of CURE being directed to the two indications of the general cast of the fever, and the affection of the throat; the nature and extent of these must ever be kept in view, and the system be duly supported. Should the

body be costive at the time of the attack, an opening medicine should be given previous to the administering of bark or cordials. The throat should be often gargled, or rather syringed, with some softening infusion or decoction, rendered more or less stimulant; such as the compound decoction of barley with honey of roses, warmed with the compound spirit of ammonia, tincture of myrrh, or a decoction of snake-root, or other such like preparations: though the quality of the gargle is oftentimes of far less importance, than its being frequently made use of, which is absolutely necessary, especially in young children, in order to keep the mouth tolerably clean; otherwise the difficulty of swallowing will be greatly increased, as well as the morbid mucus conveyed into the stomach, to the great aggravation of the disease. To prevent this likewise, the patient ought to wash his mouth previously to taking his medicines or drinks.

This fever, especially when very rife, being almost constantly of a low type, it would be unsafe to trust to saline draughts, or other medicines of that class, without the addition of the aromatic confection, snake-root, or the bark, in one form or other. A moderate quantity of wine likewise, according to the age, and degree of languor of the patient, should be given with the food, which should consist of whey, caudle, and such like thin and nutritious aliments; with plenty of barley-water, or gruel, with a view to promote a gentle perspiration.

Should the affection of the throat be evidently inflammatory, or should a case occur where the fever may seem to be of that kind, (which may be better ascertained by the hardness of the pulse than any other symptom) it will, however, very rarely bear bleeding, even in the beginning of the disease; as symptoms of debility generally attend in

some period of the scarlet-fever, and will allow only of that middle course of treatment, hinted above.

In a general way, a cordial plan is required throughout the disease, and where the throat is much affected, either with sloughs, or total blackness, the bark is indispensably necessary, howsoever thick and florid the rash, or however hot and dry the skin may be ; the bark, in moderate doses, as it were, extinguishing the fever in the milder species, above every other remedy, and in the more malignant it supports the system, till the regular stages of the fever are accomplished, and a perfect crisis is formed. Young children take it very well, especially the soft extract, dissolved in a strong decoction. Should it be disposed to purge the child, a little of the spirit of cinnamon, or a drop or two of tincture of opium should be added to it ; or if the child, on the other hand, should be two or three days without a stool, a laxative clyster should be injected. Where delirium attends a few drops of laudanum are often very serviceable. If there is much external swelling about the neck, blisters to the part are frequently very useful.

A VERY unpleasant turn of the complaint, is a secondary fever. The limbs, especially the hands, continue swollen, and a general soreness takes place ; the patient loses strength, and a tendency to hectic-fever supervenes. The bark in this case is no longer useful ; but soft demulcent medicines, and light cordials should be administered, with asses milk, and a light nourishing diet ; costiveness likewise should be obviated ; and country air had recourse to, if the patient should not soon appear convalescent.

MILIARY-FEVER.

I SHALL be brief on this complaint, which does not seem to be so strictly a disorder of young children as of

adults, unless from contagion ; though I have seen one or more instances of it, where no other person in the family has been so affected, and without its spreading to any other.

The eruption is preceded by the usual symptoms of fever, together with much itching of the skin, and a very profuse perspiration ; which, however, procures no remission of the fever, until the eruption takes place, which is at the latest on the third or fourth day. It very much resembles the measles, but is a little elevated above the skin, giving it a very rough feel. It is sometimes intermixed, from the beginning, with very small pimples of a pellucid appearance, called chrystallines ; which on the other hand, often do not appear for a day or two afterwards, and come out in successive crops, especially, if the child be kept over-hot. Some of the red eruptions are often larger than others, and resemble those in the scarlet fever, with which the miliary rash is also sometimes thought to be mixed, in seasons when eruptive complaints are very rife.

Previous to the eruption, as well as some time afterwards, the patient is usually very thirsty ; is hot and cold, by fits ; and the breathing is short and difficult. The urine is high-coloured ; there is a slight delirium ; and sometimes a sore throat, especially where the eruption is broad and very florid.

Children generally revive as the rash comes out freely ; but unless the complaint be very slight, the fever is rekindled, and they acquire no appetite for food until the eruption begins to turn dry.

THIS fever being of the low kind, is attended with great languor, and calls for support ; on which account both the medicines and diet should be of the cordial kind. White-wine whey, and wine in the panada and sagoe, in proportion to the degree of debility, are generally necessary even

for children of only a year or two old. The saline draught with the camphorated mixture, and a few grains of the aromatic confection, is a good general medicine ; and if the symptoms are more aggravated, the bark, with three or four drops of salvolatile and of the compound spirit of vitriolic ether : blisters also are often very beneficial. A stool should be procured once in two days by means of a clyster, or a little rhubarb ; and plenty of drink be allowed, which may be lightly acidulated, and at times taken cool. The chamber should be kept airy, but the child screened from the wind, and be confined to the bed, until the rash disappears.

If on the rash drying away, which in the milder species, is in three or four days, no fresh eruption should take place, the appetite and spirits soon return ; and only a little rhubarb, or other gentle laxative is required, with the usual cautions in regard to diet, so necessary for every convalescent, and especially children, who have no discretion of their own. But should fresh crops appear, and the fever return, the former plan must be continued ; but if without fever, a dose or two of physic, and quitting the warm bed, will, usually, put an end to the eruption.

MUMPS.

THIS is a swelling of the neck and throat, giving that peculiar cast of countenance from which the complaint has acquired the name. It is usually only a slight disorder in children, but as it advances, the skin becomes inflamed, putting on a light damask-rose colour ; but the parts very rarely suppurate, or form matter. This, however, does sometimes happen, but the abscess always heals kindly.

It is a complaint rather of young people than of infants ; but frequently attacks children of five or six years of age. It is certainly contagious, and is often epidemic, or very general. It begins with the common symptoms of fever, which are usually slight ; but the tongue is frequently covered with thick fur, or is very white. The patient complains early of a stiffness and pain of the neck, and generally the next day of a soreness of the throat ; but this seems oftentimes to be merely symptomatic, the glands being rarely inflamed. At this time, a fulness of the neck may be discovered, which gradually extends to the throat, and the parts become tender to the touch ; and in some instances, the pain is exceedingly great, and recurs suddenly with almost regular intervals. The swelling generally continues to increase for two or three days, and then as gradually subsides.

IN general, very little medical treatment is required, it being sufficient to confine the patient to the house ; at most, to give night and morning a few grains of the compound powder of contrayerva, with, or without a small proportion of nitre, (as the heat may be greater, or less) and to procure a stool once in twenty-four hours. But should an unusual degree of fever attend, as is more common in such as are advancing towards puberty, bleeding will be found necessary in the beginning, and the patient should be kept in bed for the first or second day, and take a saline draught with nitre, once in six or eight hours. On the other hand, should it be attended with any uncommon languor, from eight to fifteen grains of the aromatic confection, according to the age of the patient, may be taken instead of the remedies before mentioned. When the swelling is thoroughly subsided, two or three gentle laxatives may be administered at convenient intervals.

IN a few instances, after suppuration has taken place, and the sores are healed up, a hardness remains in the glands about the lower jaw, which is usually soon dispersed by rubbing in a little mercurial ointment, or sometimes by only anointing with the common liniment of ammonia. Should it, however, prove tedious, a few doses of calomel and common laxatives should be exhibited, at proper intervals.

In males growing up to puberty, the swelling of the neck has sometimes been found to subside very suddenly without any abatement of the fever, and the inflammation fall upon other parts. This new affection is attended with more pain and fever than the swelling of the neck, and is cured more slowly : upon this translation of the disease, bleeding is always proper.

A translation again is sometimes very suddenly effected, and the irritation then generally falls upon the brain ; and the worst consequences are justly to be apprehended. Every thing necessary and proper for the true phrensy is then speedily to be had recourse to, and the swelling invited to the parts it has left, by the use of fomentations and poultices ; and until that can be effected the patient will be in great danger. Such a translation, however, is much more common in *North America* than it is amongst us.

WATERY-HEAD.

THIS also, at least in one of its species, is a febrile complaint, and is sufficiently known by this name. It is very properly distinguished into the *external*, and *internal* ; in the former the water lies upon the surface of the brain, but in the latter it is seated much deeper, within the little cavities, called ventricles ; which naturally contain a

small quantity of water ; but in the diseased state are, in different degrees, preternaturally distended. The *external* makes its appearance at, or it is said, in some instances, soon after birth ; though it is certain, that children with this species are more commonly still-born. I have, nevertheless, known some arrive to full ten years of age, who were then unable to walk, or even to sit upright in a chair.

THE *external* watery-head, at whatever period it may commence, has always been esteemed a fatal, as well as most distressing complaint ; although where the disorder has not been very manifest at the birth, blisters on the head have sensibly diminished the bulk. These should be applied, successively, to different parts, especially along the top of the head, so as to keep up a constant discharge ; which from the good effects in two or three cases, when had recourse to in good time, may possibly, in some instances, effect a perfect cure : at least, the advantages already observed are sufficient to justify the attempt, in a disorder hitherto esteemed incurable.

OF the *internal* watery-head it may be proper to treat more largely. It usually takes place between the age of two and ten years, more rarely earlier, but sometimes later ; and is a melancholy complaint like the former. It may, probably, arise from falls and blows on the head ; from schirrous tumours and excrescences within the skull ; a watery state of the blood, or a lingering illness. It may likewise be owing to pressure on the brain and fulness of the vascular system from other causes. I have, at least, lately met with one case, in which there were all the usual symptoms of water in the ventricles, and an eminent physician whom I met on the occasion was fully of that opinion, though it was afterwards manifest to be otherwise, and the symptoms owing to inflammation of the brain.

As the disease may originate from such different causes, there can be no doubt that it may sometimes be a chronic, or lingering disease, and its appearances very insidious ; and this, indeed, appeared pretty manifest in a case I attended very lately. It seems likewise, to be a family complaint in some instances ; for I have known six children, born of the same parents, die successively of it at the age of two years.—Children with a large head do not seem to be more subject to this disease than other children.

The attack is sometimes very sudden ; but the complaint more commonly begins with the appearances of slow fever, especially in older children, with debility of the arms, and pains in the limbs ; and frequently in the upper part of the neck. After a while, the child is suddenly seized with pain in the head, and generally in the fore part, and retches once or more ; it becomes heavy and dull ; can bear no posture but that of lying horizontally ; the pulse becomes irregular, but usually very slow : in the progress of the disease the faculties and senses are impaired, and the eyes are offended by the light ; the patient sees objects double, and becomes delirious. As the disease advances, the pulse grows frequent, the cheeks become flushed, the pupils of the eyes are dilated, the stools and urine come away involuntarily, and the patient lies sleeping, or is convulsed, and at times in great pain.

In the youngest subjects, I have known it begin with a cough, quick pulse, and difficulty of breathing, attended with circumscribed flushed cheeks as in teething, recurring on every little exertion, with continual fever and costiveness ; and sometimes a discharge from the nose and eyes. Other symptoms indicative of the disease in very young subjects, are, a hand often put to the head, or lifted upwards, and waving about ; vomitings ; costiveness ;

expression of anxiety, and dislike to be moved ; at other times, an unmeaning look, and marks of insensibility ; the fingers often clinched, and hands tumid ; drowsiness ; picking of the nose, and grinding of the teeth during sleep, as in the case of worms : the eyes are in some cases impatient of light, in others, vision is so imperfect, that the child does not regard any objects however close to them ; and before this period, one or both the eyes are in many instances turned towards the nose. The pupils are often not dilated till near the close of the disease, and such young patients sometimes hear and comprehend, and take food to the last, and die suddenly upon the decline of the febrile symptoms, when they have been thought to be recovering. These and other symptoms however, laid down as indications of water in the brain, are, in some degree, common to other diseases of children, especially the enlargement of the pupil and sleepiness, in fevers arising from foul bowels ; which, I am persuaded, are sometimes mistaken for the fever of water in the head. In such cases, some children have been erroneously thought to have recovered from this disease, especially if calomel has been administered, though with another view ; while others have perished from improper treatment, and mistaking their complaint. Perhaps, the most decided symptoms early in the disease (at which time it is of the most importance to ascertain it) are an inclination to lie on the back, an unwillingness to be moved, and an increase of pain in the head upon being raised from a supine to an erect posture : but especially an almost constant drowsiness, and a tendency to fall asleep, after being roused by being lifted up, or otherwise disturbed. Sometimes, however, neither these, nor other decided symptoms are found to take place until the second stage of the disease.

THOUGH it is sometimes a very short disease, and at others, of many months standing, it seems always to be divided into three stages ; which are best distinguished by the state of the pulse. In the first, the pulse is always quick as in other complaints attended with fever : but the true nature of the disease, is often overlooked till the next stage ; in which the pulse is slow, irregular, and often intermitting ; and in the third it becomes again very quick, and usually regular. The urine frequently deposits a sediment of a light consistence, and white colour ; and the breath has an offensive and sickly smell, especially in the last stage.

From what has been advanced, it is difficult to say if medicines are so often successful as hath sometimes been imagined ; for when a patient recovers, it may be suspected he has not had the true disease. And this, I am persuaded, is sometimes the case, having myself recovered children who have had the strongest marks of this disease ; and chiefly by purging them, especially with calomel, which has brought away immensely large stools of a peculiar black colour,* for a great many days.

FOR the means of CURE, practitioners seem chiefly to have depended on repeated bleedings ; purges with jalap, or calomel ; blisters to the neck, or head ; diuretic medicines, and the external use of mercurial ointment. A large bleeding early in the disease I have thought very beneficial, especially in children of a robust habit. The use of powders to provoke sneezing, such as the compound powder of asarum, or white helebore, have likewise been recommended by some experienced practitioners ; and, possi-

* Stools of this colour take place in the month, long after the meconium has been duly carried off, when infants are dangerously ill ; though it is at other times a very harmless symptom, as will be remarked in Vol. III. where notice is taken of suckling, and sore-nipples.

bly, with some little prospect of advantage, some children having recovered in consequence of a discharge of a thin fluid by the nostrils. With a view of promoting absorption, electricity has likewise been recommended: to all which I would add the application of a narrow caustic along the whole course of the head, instead of trusting to a small blister on the crown.

Though I have made mention of mercury, I cannot say I have seen any decidedly good effects from its use, either as a purge or an alterative, (after the disease has been clearly ascertained;) administered either externally or internally; though I have had recourse to it very early as well as late in the disease, and in consultation with various practitioners. Should the use of it, however, be determined upon; in which ever way it may be advised, it should be assisted by diuretics: and calomel is probably the fittest preparation for internal use.

The external application of mercury has, however, been more generally preferred, as acting more powerfully on the system, and creating less disorder in the bowels. Some physicians have directed it to be used both externally and internally; and it may be so made use of very freely, as a salivation is not very easily raised in young children, especially in this disease.

The fox-glove has lately succeeded, in a boy of fourteen years of age, under the most unfavourable symptoms; and seems therefore, worthy of further trials. It acted merely as a diuretic, and induced no particular debility, though the patient could before swallow nothing but with the greatest difficulty, owing to a spasm, or palsy of the gullet. The medicine was given in a strong spirituous tincture: but in any form, should be administered only under the eye of some intelligent practitioner.

As I am always happy in the opportunity of reflecting any light upon obscure diseases, I shall close these means of cure with the latest observations of eminent practitioners.

The disease, as I have stated, is conceived to be truly inflammatory in its commencement, and is therefore directed to be treated agreeably to this idea :

1st. By bleeding, which in some cases is advised to be repeated several times in the first stage of the disease.

The second remedy in this stage is, purging, plentifully and repeatedly.

3d. Blisters to the head, neck and temples, for the relief of the pain in the head ; which are, therefore, proper in any stage of the disorder.

4th. With a like view, linnen cloths, dipped in cold vinegar, or ice-water, and applied to the forehead.

5th. Mercury, particularly calomel, as a purge, in any stage ; but mercury in larger quantities, as a stimulant, as soon as may be after the inflammatory action of the system is sufficiently subdued by previous evacuations, or otherwise. Bark, wine and opium, are thought to promise success only in the last stage of the disorder, assisted by mercury, where the state of the system may call for them.

THE intentions of cure, and not very dissimilar from the above, have been laid down by others, as follows :

To mitigate the pain and spasm ;

To promote absorption ; and

To increase the serous excretions.

When the pain and spasms are considerable, opiates are advised in large and repeated doses, unless there be great sleepiness, and in that case, musk combined with salt of harts-horn. Repeated blisters to the head are recommend-

ed, and the fox-glove directed to be joined with opium and calomel. If the mercury be disposed to run off by the bowels, it is to be further guarded by opium.

As a preventive, where several children in a family may have suffered by it, some writers have advised a caustic to be applied to the nape of the neck. And other physicians have thought, that the progress of the disease has been stopped, after threatening symptoms had taken place, by covering the whole crown of the head by a blister, and keeping the sore open for a year or more; of the good effects of which, I have seen one instance, in a family where the complaint had been three times fatal.

GENERAL OBSERVATIONS *on the SMALL-POX and MEASLES*; *with CURSORY REMARKS on INOCULATION; and on the Cow-Pox.*

IT will scarcely be expected, that I should treat distinctly of the small-pox and measles in their several varieties; the former of which especially, being a complicated disorder, and capable of being rightly conceived of only by long practice and experience. They are also neither of them, in any respect peculiar to childhood, nor of a nature to demand a full investigation in a work of this kind; and are noticed only to point out a few principal indications, and to introduce some practical observations in regard to Inoculation.

Though the SMALL-POX is a complaint so incident to the early part of life, that comparatively few children living to the age of eight or ten years, are found to escape it; yet it is not so readily communicated, in the state of

early infancy, as hath been generally imagined, unless by immediate infection.*

The poor furnish frequent instances of the truth of this observation. I have attended where children born in an air, saturated as it were, with the miasma, or infectious particles, of this disease, and even lying continually in a cradle in which another child has died a few days before, have, nevertheless, escaped the disease, and sometimes, when they have slept together in the same bed with one loaded with it. Hence it appears, that highly tainted air, and even personal contact, are often insufficient to communicate the poison. Yet we know that infants are

* Some evidence of the propriety of this assertion may be gathered from the consideration of there always existing a far greater number of infants within the month, than of children of any other age; and for the like reason, a greater number of those under a year old, than of such as are two or three years of age. For it is evident, that every infant dying at the early periods, must reduce the number to which those of the more advanced ages might otherwise have amounted: whereas, all the children who arrive to two or three years of age, having been first infants in the month, and of one year old, the number of the latter periods is not diminished by the death of those of a more advanced age. Now, every one knows how very few infants he has heard of who have taken the small-pox, naturally in the month, or even within the year; though fewer of these are inoculated than of children above a year old. And this exemption from the natural small-pox does not seem to arise from their not being exposed to the ordinary means of contagion, especially among the middling and lower ranks of people who form the bulk of mankind; since the medical men who usually attend such lying-in rooms, are very much in the habit both of visiting patients in the small-pox, and of inoculating, all the year round: and even in the higher ranks of life, if gentlemen in the general practice of physic happen to be consulted, the chance of their visiting at the same time infected patients, is not so small as may be imagined; not to speak of the probability there is, that some one of the numerous visitors, during the month, may by accident or otherwise, have been in some infected house in the course of the day in which their visits may be made.

very easily infected, receiving the small-pox by inoculation as readily as adults ; though neither are at all time equally susceptible of it.* Perhaps this latter circumstance may not always be sufficiently attended to ; the mode of inoculation being often blamed, when its failure may be owing to the adverse habit of the child. Possibly, on this account, it may not be perfectly safe to urge it, at such a time ; at least, instances are not wanting, where twice introducing the matter having failed, an infant has had the disease very severely, and even fatally, upon its being repeated a third time.—In no other view, I imagine, can the repetition be accounted hazardous ; and this holds out encouragement to such as from any uncertainty in regard to infection, may wish to be inoculated once or more ; a young person, we are told, having been inoculated every fortnight, for a whole year. The first of these operations communicated the disease, and the subsequent ones in no wise injured his health.

The like observation will apply to the *measles* ; I mean, the indisposition to contagion during *infancy*. I have known, in more than one instance, a twin escape the disease, while the other child suffered by it severely, and both were nursed in the same apartment, and suckled by the mother.

BUT in whatever way either of these diseases may take place, they are to be treated as in adults, with but little

* Dr. YOUNG inoculated several children at the Royal Infirmary at *Edinburgh* at about a week old ; yet ~~is~~ none of them could he perceive the infection to take place. And a respectable physician lately informed me, that he knew a young woman to be inoculated eight times in the course of thirty days, who also at the same time attended several children who had the small-pox from inoculation, and yet was not infected herself. She, nevertheless, caught that distemper about seven weeks afterwards, and died of a confluent sort.

other difference than what might naturally be expected, that of greater caution and tenderness ; as infants cannot bear the powerful lowering and cooling regimen and evacuations, often proper for the other.

It may be proper to observe, however, for the information of readers little acquainted with the disease, that in the mild distinct small-pox the eruption does not appear till the fourth day, inclusive from the attack ; but in the severe, confluent kind, (in which the pustules run into one another) on the third, and even sometimes early on the second day. In the former also, the fever and other complaints usually vanish upon the eruption appearing on the skin ; whereas in the confluent, however it may abate for a short time, the fever is rekindled, and increases with the progress of the disease. There are likewise some peculiarities in regard to young children, both in the mode of attack, and in the symptoms attending the latter stage of the disease, which may be slightly noticed in this place. The vomiting, shivering, and pain in the back and head, being rarely succeeded by a sweat in infants ; and is, indeed, far less common in all young children than adults, under any of their complaints, and is less commonly salutary, or critical. In the progress of the disease there is likewise as frequent a difference, children having usually a purging in the bad confluent sort, in the place of that salivation which usually appears in adults ; and demands a judicious management. It may, therefore, be further remarked as too common an error possibly, that of procuring stools at the turn of the pock, when infants have this disease pretty full, whether of the distinct, or the confluent kind ; young children sometimes sinking suddenly after one or more copious stools, who would be in less danger from remaining costive, at this period of the disease.

These circumstances, as well as their tender age, will call for some little diversity in the treatment. But as in the mild distinct small-pox very little is required but to keep children cool, and give them plenty of diluting drinks, until the eruption is completed ; so in the bad confluent kind, the indications are too various, and often perplexing, for the most intelligent of my readers who have not made the profession of medicine their study.

IN regard to the MEASLES it needs only to be remarked, that children ought to be kept in bed, and not only their bowels preserved open throughout the disease, and cooling medicines, and diluting drinks be administered ; but unless they are very young, they will bear and even require one or more bleedings, at any period of it when the symptoms (particularly, much cough or fever) indicate its propriety. And, indeed, the cure of the secondary fever, and cough, however long they may continue, will turn upon repeated bleedings, laxatives, and a total abstinence from wine, and all animal food—A caution that I wish strongly to inculcate upon parents.—It may chance to prove a consolation to some readers to be apprized, as it is far from a common occurrence, that the eruption does not always dry off on the fourth day, even in the benign measles, but may continue to the eighth, and even longer.

INOCULATION.

I SHALL drop a few words more on this subject, because parents are very apt to fall into great mistakes respecting the age and circumstances most proper for this operation.

It has already been remarked, that young infants are not very liable to contagion ; which is surely an argument

against early infection, if it be attended with any peculiar hazard, as it most certainly is. Whereas, it is too common an opinion that a very young infant, sucking at the breast, is the fittest subject for inoculation, and medical people have some difficulty in persuading parents to the contrary. Children are then said to be clear from humours, their blood mild and balsamic, their food innocent, and their minds free from all violent passions. But all these advantages may be counterbalanced by the delicacy of their frame, their disposition to spasm, and their inability to struggle with a severe attack of the disease, if it should chance to fall to their share. And such, indeed, are the facts : infants usually have the small-pox very lightly, whether taken naturally, or from inoculation ; though in both there are a few instances of their expiring in a fit at the time of eruption, (the risk being greater also the younger the infant may be ;) and they seldom get through the disease, if they are full, or it proves of the confluent, or malignant kind. And this furnishes a peculiar objection to inoculating infants at the breast, which arises from their often lying so much on the arm of the suckling mother, or nurse, especially in the night ; the heat exposing them to a much more copious eruption, than children who are weaned.

I am aware that many children are inoculated very young, and even in the month, and generally with very good success ; but the frequency of this practice, among eminent surgeons, is owing to the urgent solicitation of parents, and their fear of contagion. I cannot therefore avoid saying, that however few may die under inoculation, under any circumstances, the fact is, that the far greater proportion that I happen to have had an account

of, is amongst infants under six months old. A remarkable proof of this disproportion appeared a few years ago under a general inoculation at *Luton*, during the progress of a malignant small-pox, which carried off one half of those who were attacked by it in the natural way. In the midst of this fatality, twelve hundred and fifteen paupers were inoculated, through the humanity of the present Bishop of *St. David's*, many of whom refused all preparatory medicines, and were besides addicted to the use of strong liquors : nevertheless, out of the *twelve hundred and fifteen*, only *five* died—all of whom were infants under *four months old*. Seven hundred adult people of better condition, in the same neighbourhood, were inoculated a short time afterwards, and with the like good success with the former.

FROM this view of the matter, it is pretty evident, I think, that this operation ought, in general, to be postponed to a later period ; which is pointed out by the child having cut all its first teeth : to which may be added another observation from the well known fact, that more than fifty children die under the age of two years, of other complaints, to one that dies of the natural small-pox. Should it, however, be in the same house, or prevail in the neighbourhood ; and the parents find it difficult to remove the child out of the way ; it may run a less risk in being immediately inoculated, as that operation is now so well understood, and successfully conducted, than by taking the chance of escaping the infection, or of recovering from the disease, if it should happen to take place.

THE inoculation of pregnant-women being, in certain instances, dangerous to the infant, it is presumed, that it cannot be totally foreign from the subject, to annex a caution on that head ; it having until of late been gene-

rally imagined, that the child is not infected by the parent passing through the small-pox, whether from inoculation, or otherwise. It is, indeed, comparatively rare, that the unborn-fetus takes the disease, howsoever severely the mother may suffer by it; yet from very accurate accounts of this matter, the fact is established as the result of much experience and reflection, where the parent has been infected *after the sixth month* of gestation. Previous to that period, however, the infant (whatever be the cause) has very seldom been known to take the disease; and later than that, it is presumed, few mothers would be inclined to submit to the operation, unless from some urgent necessity. The parent, indeed, is not in much additional danger from being inoculated in a state of pregnancy, unless the disease should prove considerably more severe than is ever suspected from inoculation; but if communicated to the fetus, the infant always dies.

On the VACCINE-INOCULATION, or COW-POX.

As this new disease could claim the reader's notice only in the form of *inoculation*, I had, in a view to the present edition, prepared a few pages as a mere appendix to that article in the chapter on the *small-pox*. This being more than a year ago, and the practice of *vaccine-inoculation* then in its infancy, the question of expedience seemed rather to demand impartiality and caution, than absolute decision, from the author of this work. And if he had, at that time, found leisure enough to complete the intended revise, (as he anxiously wished, from the former edition being sometime out of print) the reader might have discerned more propriety in the sentiments

entertained at that period : which, however, as they will demonstrate that his mind has been cautiously made up respecting the cow-pox, which he then conceived some families of rank were adopting prematurely ; he will here subjoin in a note.*

* It may be expected, that under this head, some notice should be taken of the *Cow-pox*, as this kind of inoculation, notwithstanding the obscurity that still hangs over it, is acquiring a progressive confidence. There are, indeed, many more things to be made out than I shall touch upon ; but amongst the more essential, I shall principally risk an observation or two relative to the *future security* of the patient, in regard to an exemption from the *small-pox*. For, besides the difference of opinion among practitioners in respect to the certainty of always inoculating the *genuine Cow-pox* ; and the relative dangers of that disease, and of the inoculated *small-pox* ; it most certainly remains yet to be proved, (howsoever the system may by the former, be for a while indisposed to the infection of the small-pox) how long this exemption may continue ; and therefore how far the inoculated subject may be secure from all future infection ; howsoever many have, without effect, been inoculated with variolous matter after having gone through the *cow-pox*.—Not to insist here, that the experiments hitherto made have been too much, if not altogether confined to patients *immediately*, or *very recently* recovered from the cow-pox, and that they ought to be repeated after some months, or even years, before the supposed security can be established.

It is advanced, I know, as an argument on the other hand, that from twenty years observation, no person casually infected with this disease from the cow, has been known afterwards to be affected by the small-pox. But this remark being confined to country dairies, where the inhabitants are few, and the small-pox is often not known to rage for more than a quarter of a century ; no decided stress can be laid on this exemption, until that disease shall be found to spread in the neighbourhood, or the milkers who have been infected with the cow-pox shall have resisted *repeated* inoculations with variolous matter. †

† In vindication of the above cautions, it may be only just to add, that long after they were inserted in my manuscript additions to this work, the following critique appeared in one of the Reviews on the publications of *Drs. Jenner and Woodville*.—" With respect to the value of this discovery to mankind, different opinions we apprehend, will be enter-

SINCE that time, an attention to what has been published on the subject ; conversing with several of the best informed advocates for the practice ; and successive accounts of what has been the uniform experience at the VACCINE INSTITUTION, the ground of opinion has been narrowed ; and the question both of expedience and security been consequently simplified, if not fully established.

Sufficient evidence, indeed, seems to be adduced of the *safety* of the new inoculation ; that it is a light disease, or scarcely deserving the name ; so that the youngest infants, teething, and even unhealthy children, or pregnant women, may be infected ; that it is not contagious, or communicable by effluvia ; and admits therefore of inoculating one, or more, in a family, where others have neither had this disorder, nor the small-pox. To these advantages it should be added, that neither scrofulous symptoms, sore eyes, or other morbid affection, nor any deformity of the skin, or features, are induced by it, as they sometimes are by the small-pox.

These are important articles ; and it may with equal truth be asserted, that no appropriate remedies, nor attendance being requisite, all anxiety on the part of parents and friends is sufficiently obviated ; so that, howsoever little might be the positive good, there seem to be no evils connected with the practice ; and should it, indeed, permanently secure from variolous contagion, as it is hoped by all, the benefits, in various respects, will be incalculable.

ON the other hand, should the system even become susceptible of small-pox at some remote period ; nevertheless, tained. Until the *permanent* preventive power of this disease with regard to the small-pox, be much better ascertained than at present it appears to be, inoculation for the cow-pox is not likely to become a very general practice."

by the previous cow-pock infection, the former precipitate, and hazardous inoculation of infants, or aged, and infirm people will be superseded; and should an after inoculation for the small-pox be, on any account, judged proper, it may be deferred, with impunity, to the most safe and convenient time.

Under these impressions, arising from a collection of well-attested facts, and careful investigation of repugnant reports, I felt myself warranted in countenancing the practice; and adopted it, by inoculating one of my grand-children at the age of three months, and afterwards other young children: persuaded, that the only care requisite is to procure the *genuine* cow-pock matter, (now always to be had) and to obtain certain evidence of *infection*; for want of the one or other of which, most of the objections that have so long been made, and at first were very unsatisfactorily replied to, seem to have arisen.

IN this view, therefore, it will be proper to add, that upon the authority of the best practitioners, it appears, that suspicion should attach, where *great* tumour, and *very considerable* redness take place on the second, or third day after inoculation; and so on the other hand, when *no* redness, nor tumour ensue; so also, if no vesicle, nor pustule should arise; but the inflammation produce, about the sixth, or seventh day, an irregular suppuration, (instead of the circular vesicle) forming a festering sore: though this must be carefully distinguished from a similar sore, which is confessedly sometimes met with in the genuine cow-pox, consequent to the inoculated part assuming, for a day or two, a pustular form, instead of the usual circular vesicle. It may be further noticed, that in children of five or six years of age, some slight complaints should be expected, such as transient head-ach, feverishness, or pain in the

limbs; but that very young infants have usually no manifest affection, unless it be a little tenderness in the arm-pits, and a slight rash resembling that of teething children, soon after the inoculated parts manifest infection having taking place.

THAT some peculiarities, from opposite sentiments and facts, do, however, still remain, which only time and further evidence can make out to the entire satisfaction of thinking men, should not be withheld from the public eye, nor from the class of readers for whom this work is exclusively calculated; being designed to enable them to judge for themselves, whensoever sufficient information can be communicated.

Many of the obscurities, however that presented some-time ago, seem to be done away, or have been considerably obviated by the cautions that further experience has furnished; and it may be reasonably expected, may in a little time be entirely removed. I shall, therefore, only notice, that this inoculation doth not certainly anticipate the *small-pox*, nor prevent that disorder taking its course, if its contagion has previously taken place; as the inoculated *small-pox* is found to anticipate the natural disease, if the operation be done within three or four days after infection.

2dly. That there is a spurious or inefficient cow-pox, in some instances distinguishable only by those who are very conversant with the disease; and particularly, the progress, and peculiar appearance of the vesicle, in its different stages.

3dly. That the virus being much milder than that of the *small-pox*, more caution is required in the choice of the matter, and more care in its insertion, than for that disease; and for want of which, as I have already noticed, very perplexing circumstances have occurred.

4thly. That some degree of uncertainty seems yet to remain as to the absolute security from the small-pox, at every future period ; and this must necessarily be increased in proportion as the above cautious discriminations are neglected.

CHICKEN-POX.

THOUGH this disease is usually a very light one, it merits a few words, not only because more incident, perhaps, to children than to adults, but also that parents are often at a loss to distinguish it from the mild small-pox ; which it sometimes exceeds in violence, and is now and then even attended with danger. This is, indeed, so uncommon, that the disease has been very seldom noticed by medical writers : and even Dr. HEBERDEN, who was among the first that obliged the public with a distinct account of it, says he never saw any person with so many as three hundred pustules over the whole body. Physicians, indeed, as he observes, were not formerly often called to visit patients under a complaint usually so trifling ; or a gentleman of his long and extensive practice, would have met with instances in which it must have appeared of more consequence, as will presently be noticed.

It is from this disparity, I apprehend, that this disorder is sometimes denominated the swine-pox ; which is only a ranker species of the disease, in which the symptoms may run higher, as well as the pustules become much larger, and more maturated. In this case, I have known the head and face as much swollen as I have ever seen them in any distinct small-pox, however full, and the pustules containing a yellow matter, with highly inflamed bases, and exceedingly sore ; and these have formed a complete mask on

the face, after the turn, as is often seen in the small-pox. One such patient whom I was called to visit, a few miles from town, was about sixteen years of age, of a full habit, but very healthy; and what makes it very certain, that this complaint could not be the small-pox, is, that the young gentleman died of that disorder a twelvemonth afterwards; and possibly owing to its being neglected in the beginning, from an idea that the former illness had really been the small-pox. The latter mistake arose from an improper answer having been then made to my enquiry after the day on which the eruption had first appeared, (as I was called to make him only one visit, when the pock was on the turn;) a mistake the young gentleman's mother had a perfect recollection of after I was gone, and of which I reminded her upon being called to visit her son in the small-pox, only the day before his death.

This case strongly verifies the remark of Dr. HEBERDEN, that this complaint can, in some instances, be distinguished from the small-pox only by its quicker progress towards maturation, and the shorter duration of the pustules; a watery vesicle always appearing on the second or third day from the eruption, and the turn, at the furthest, taking place on the fifth.

THE Treatment of it differs nothing from that of the mild, distinct small-pox; but it more rarely calls for much attention, and only when a patient may have it very full; or as sometimes happens, a second crop appears, after the first has dried off.—If the child be young much physic should not be given afterwards.

AGUE.

THIS is a complaint so well known, that it seems unnecessary here to enter minutely into a description of it.

It is sufficient to say, that it consists of repeated cold and hot fits regularly succeeding each other, with one or more well-days between them, (according to the species of ague;) in which interval the sick passes a high-coloured urine, that deposits a red sediment.

It, perhaps, partakes more of a nervous affection than other fevers may do, and is known to be endemic, or resident, in some flat marshy situations, but is most frequent in the spring and fall of the year; in the former of which it is generally easily cured, and is even sometimes salutary. Autumnal agues, on the other hand, especially in the country, and amongst very poor people who feed coarsely, will frequently continue a long time, and return again the next autumn; whereby the constitution becomes considerably impaired. In such instances the legs are apt to swell, and more especially the belly, which becomes hard, particularly on the left side; the tumour being termed the ague-cake. This tumefaction, however, instead of being a bad sign, as might be suspected, is a very favourable one, and indicates the recovery of the patient: the hardness usually subsiding in the course of a few months, especially upon the use of moderate exercise, and a generous diet. It may be prudent, however, to encourage the resolution of the tumour, by small doses of calomel, and afterwards light bitters; adding likewise chalybeates, if the habit of the patient seems to require them, and there are no symptoms of a morbid affection of any internal part.

ON the CURE of this complaint it would be beside the present intention to enter very largely, as well as perplex the generality of readers. Some notice however, is taken of the complaint, because, though no more peculiar to children than the last mentioned diseases, yet it may be said, that there are comparatively very few children who

have not suffered by it during the years usually passed at school.

The ague, indeed, attacks every age, so that infants even under a year old are very liable to it, whenever it rages among adults. It is with a peculiar view to patients of the former class that the following directions are given, the bark being as much a specific for older children as it is for grown people; but it is generally proper first to administer an emetic, and one or more doses of physic, as well as sometimes to assist the bark by the addition of aromatics, or steel. It will be improper, however, to be in an hurry with either, but rather to suffer the patient to have two or three regular fits, before the bark, and other tonics are administered; provided the child be of a full and heated habit.—The small-pox whether taken naturally, or by inoculation, as well as other acute complaints has sometimes removed obstinate autumnal, and chronical agues.

In a state of infancy, the ague is often owing to, or connected with a foul state of the bowels and obstruction of the gall-ducts, and is frequently accompanied with worms, or such a state of the bowels as affords a proper nest for them.

The more common, or third day ague, at this age generally yields to purges of the powder of scammony with calomel, or calomel and rhubarb, given on the days between the fits, and small dozes of Dr. JAMES's powder on the return of the fever. Should this fail, an emetic should be administered an hour or two before the next cold fit is expected, if the powder should not already have had that effect.—A linen waistcoat with fine powder of bark quilted within it, may be worn by infants next their skin. Or, as a more expeditious remedy, the bark may be made into a poultice, and applied warm to the region of the stomach, and renewed through the day as often as it may get cool.

With the like view, a piece of bread, hot from the oven, and sprinkled with camphorated spirit, is a very convenient fomentation in this and other complaints, where a speedy perspiration is wished for.

In older children, the common saline draught, taken once in six or eight hours, will frequently succeed; as will warm bitters, and medicines that promote and keep up perspiration; but if these should prove insufficient, the bark, it has been said, will be proper, especially in those agues that have more than one well-day between the fits, and are the more difficult of cure. Crude salt-ammoniac also in the dose of ten or twelve grains, for children of five or six years of age, has sometimes cured this troublesome complaint; but may not be proper for delicate constitutions. Myrrh is a better remedy for such, given from four to eight grains, before, or during a cold-fit, and as much cream of tartar, every two or three hours, during the fever. Pepper, and likewise alum are common quack remedies, and may be frequently given with success at this age; the former from five to ten grains, the latter from three to five, joined with the like quantity of nutmeg, three or four times a day in the absence of the fever.

Amongst popular remedies,* is a tea-spoonful of white resin in fine powder, mixed with the like quantity of pounded loaf-sugar, taken a little before the cold-fit, and repeated afterwards night and morning. Poor people, or such as live in the country at a distance from medical help, may make trial of it with safety, and with as good prospect of success as any other remedy I know of; having found it successful even where large doses of the bark have failed.

* It is hoped, that the very great obstinacy sometimes observed in this complaint, as well as a desire of enabling readers to assist their country poor, will be admitted as an apology for this and other similar passages met with in this work.

Bracelets of mustard-seed and garlic may likewise be applied to the wrists and ankles, and will sometimes have a good effect. Such kind of remedies for this disease are numberless; I shall, however, mention one other, which, though as anile as any, seems to have been very often successful, (as I have been informed by the late Dr. HUCK SAUNDERS, as well as others;) and is nothing more than the spider's web, rolled loosely up to the size of a child's marble, and washed down with a little warm wine and water, or chamomile-tea, before the cold-fit is expected: the child should then be put into a warm bed, and perspiration be encouraged. This may be done, amongst other means, by fomentations to the pit of the stomach. Such may be prepared of bark, or bread hot from the oven, as before mentioned.

I shall close the list of remedies with the following, which is a very good one for patients no otherwise averse from the bark, than that the stomach will not bear it in large doses.

TAKE of fresh sassafras bark, Virginia snake-root, roche-alum, nutmeg, calcined antimony, and salt of wormwood, of each one drachm: to these, well rubbed together into a fine powder, add the weight of the whole of the best Peruvian bark; then add three or four drops of the chemical oil of mint, and with syrup of saffron make all into the consistence of an electuary. This is to be divided into twenty-four doses, one of which may be taken by children of eight or ten years of age, every four or six hours, while the patient is awake. To make this or any other preparation of the bark sit easy on the stomach, the patient should first eat a bit of bread, or other light food with which it may mix, instead of being received into an empty stomach, whereby it frequently nauseates.

GENERAL OBSERVATIONS *on* COUGHS.

PREVIOUSLY to treating of the whooping, and what I have termed the *spasmodic* cough, it may be proper to premise some slight observations on coughs in general ; a complaint in children that we are often consulted for. It is, indeed, always of importance to be able to make proper distinctions in this affection, as it accompanies divers complaints, especially in infancy ; and is sometimes a very harmless attendant, while at others, it is of the greatest magnitude, and calls for its appropriate treatment from the beginning.

From what has been said in different parts of this work, it will be very evident, that a cough is not always to be considered as the original complaint, like the whooping-cough, any more than a direct consequence of a cold, or of specific affection of the lungs, as in the measles. Where it may happen to be so, very little need to be added to what has been said under the head of fevers ; and the whooping and spasmodic coughs will be presently treated of distinctly. The principal intention here is to afford satisfaction to those who might expect to meet with some observations under this head, by reminding them, that a cough often attends teething, and some bowel complaints, or a foul state of the stomach, as well as a common cold, and inflammatory and other fevers, (which parents are, however, apt to suspect whenever children are attacked with a cough ;) and is a recurring symptom in many delicate habits. Very slight occasions are oftentimes sufficient to excite it in such children, whether from a frosty or damp air, or from any little illness that has reduced the strength, and particularly if the child be of a scrofu-

lous habit. Every confirmed glandular affection will, indeed, be attended with a cough, which in that case is of the worst kind, as it is accompanied with fever, loss of strength and manifest disease ; in the last stages of which the cough becomes permanent.

In every case, therefore, the cause and attendant symptoms, rather than the mere cough, should be carefully considered ; and especially if the child be costive, or the bowels foul, and their discharges of an unusually offensive smell. Purging medicines, it has been before said, are in this case the proper remedies, which should frequently be joined with saponaceous ingredients, such as the water of kali, prepared natron, or the burnt sponge ; nothing being more common than an obstinate and teasing cough, especially during the night, when the bowels have been long in a costive state, and their discharges are very fetid, or of a stiff and clayey consistence. As opiates, or composing medicines, in such cases must be peculiarly noxious, the strictest prohibition of them should be enjoined, lest the constant recurrence of the cough during the night, should tempt nurses (as it often has done) to administer even syrup of poppies, though the mildest of that class ; since by increasing the constipation of the bowels, it will not fail equally to increase the disease. If a cough be the consequence of a slight cold, some softening emulsion, or linctus, a light diet, and keeping the bowels well open by senna-tea, will be the proper remedies.

HOOPING-COUGH.

THE following concise history of this formidable disorder, may be acceptable to the more intelligent and inquisitive reader, which was unknown, probably, to the

old writers; and is supposed to have been conveyed into *Europe* from *Africa*, or the *East-Indies*: and indeed it has not been well understood in any part of *Europe*, till of very late years. Hence, probably, its great fatality in *Stockholm*, where from the year 1749 to 1764 inclusive, 43,393 children are reported to have sunk under it.

This disorder, therefore, furnishes another proof of the observation made on the impropriety of submitting the complaints of children to improper hands—the care of old women, and frequent change of air, being all that this disorder is, by some people, thought to require:* but perhaps the maxim was never worse applied, as may be evident from the above history of the disease. There is, indeed, a milder sort of hooping-cough, (as there is of every disorder) which calls for very little medicinal assistance; and it is always in such cases, that matrons and old nurses acquire their credit. But there is no complaint of children with which I am at all acquainted, in which medicine is at times more evidently serviceable, than in a bad hooping-cough.

THIS disease is certainly highly infectious, and one of those that never appears a second time. It may attack at any age, adults being liable to its influence, as well as younger people; but it more commonly takes place between the age of four months and twelve years. It often begins as a common cough, and is attended with the usual

* If this be true to any degree, so that children, with very little assistance from medicine, have seemed to get rid of an obstinate hooping cough, by removing from one air to another; it is not improbable, that this may have arisen as much from getting out of infected beds and apartments, which might keep up the contagion, through the medium of respiration, as from any specific influence of the air, resulting merely from a change; which advantages may, therefore, be had at less trouble and expence.

symptoms of having taken cold, but in its progress soon becomes more severe : though the longer it may be before it plainly discovers itself, by the *hoop*, the more favourable it is likely to be. The fits of coughing are attended with a peculiar noise, not ill-expressed by the term *hoop*, and is sufficiently known to every parent who has ever had a child severely attacked by it ; and to whose feelings, it proves one of the most distressing complaints their children are liable to. A flux of rheum frequently comes from the mouth, nose, and eyes, and the food is thrown up, together with a viscid phlegm, (often in great quantities) in the coughing fits ; between which the child generally appears to be perfectly well, and eats its food very heartily. These are the more common symptoms ; but when the disease is violent and has continued for some time, they become greatly aggravated, especially in the night, and the child will seem almost strangled in each fit, the face and neck becoming perfectly livid, till by a violent effort, attended with a *hoop*, it recovers its breath ; the blood will likewise sometimes rush from the nose and mouth : and I have in two or three instances seen the eye-lids as black as if injured by a violent blow, and remain so as long as the cough has continued severe. When taken in time, however, and properly treated, the *hooping-cough* is rarely fatal, and scarcely ever but to young infants ; and never as long as the patient keeps free from fever.

The means of CURE have been differently conceived of, obvious as the nature of the disease has a long time appeared. It has been thought, indeed, by some practitioners, that little more than emetics, and gentle laxatives are required, in which view it was, that the late Dr. JAMES

recommended his powder ; though some people of late have very imprudently wished to discard the former altogether. But the fact is, that many other means are equally useful, and not unfrequently indispensably necessary, unless we should suffer the patient to be strangled in a fit of coughing, or fall into a decline, from the injury which the lungs must endure by a frequent repetition of such violence.

This must be exceedingly apparent from the above account of the disease, the various symptoms of which, certainly demand a considerable diversity in the treatment. The more important ones are, the state of inflammation, sometimes inducing inflammation of the lungs ; the quantity and viscosity of the phlegm ; and the spasmodic affection, and danger of suffocation ; together with the exhausted state into which the patient may be reduced by the long continuance of the disease. If the breathing therefore be difficult, a blister is indicated, which, if the child is not very young, may be kept open for two or three weeks ; or, what is sometimes preferable, the repetition of a small one, once in six or eight days. If the face should be very livid and swollen, during the fits of coughing ; if any vessel give way ; or the patient be robust, and more than two or three years old ; or should be hot between the paroxysms, a little blood ought to be taken away, (which is sometimes inexpressibly useful,) and a saline draught be administered, every six or eight hours, and the bowels kept open, till the fever shall disappear. Otherwise, if none of these symptoms attend, bleeding does not seem to be indicated, nor much purging ; but may rather have a tendency to protract the disease, by increasing the spasmodic disposition, and by weakening the patient.

If there be an inclination to vomit, it ought to be encouraged, unless the phlegm be brought up with great ease in almost every fit of coughing; in which case, nature seems able to accomplish the business herself, and it will then oftentimes be sufficient to keep the body open by the mildest laxative medicines. But it very rarely happens, unless in infants at the breast, that some kind of emetic is not necessary in the first stage of the complaint; and is often necessary even for the youngest of them. The disease, indeed, frequently requires no other medicine; for such usually keep the body open at the same time, which it ought always to be, but not to such a degree, it has been said, as to weaken the child. For these purposes tartarised antimony, or its wine, are commonly as proper as any. Two grains of the former dissolved in two ounces of water, with the addition of a little sugar, is a medicine to which children will never make any objection. From one to two tea-spoonsfull, given to a child of a year old, (varying the dose according to the age) will in general vomit sufficiently; and may be given upon an empty stomach, every day or every other morning, according to the strength of the child, and degree of disease; administering a second dose, after a quarter of an hour, if the first should have no effect. If the cough should happen to be more violent at any particular time, the emetic should be given a little before the fit is expected. Or perhaps a still better method, particularly in very young children, is, to give the tartarised antimony in smaller doses, together with a few grains of magnesia, or prepared oyster-shell powder, (according to the state of the bowels*) three or four times a day, so as to keep the stomach in such an irritable state, as shall secure a gentle puking every time

* See Note, page 33.

the fits of coughing come on. But in whatever way this medicine be directed, it will prove of no service if it does not excite vomiting, and must therefore be given in a dose suitable to the strength of the stomach, which is exceedingly various, not only at different ages, but in children of the same age, and of the same apparent habit of body. If one preparation of antimony may have any advantage over another, they have all much more over every other emetic I have made use of; the ipecacuanha, and oxymel of squills, being exceedingly unpleasant, and the latter, as far as my experience goes, usually more uncertain than any other emetic.

SUCH a plan is all that will be necessary in the common hooping-cough; but it has been said, there are many cases which will require other means, and demand all the skill of the experienced physician. The cough, for instance, will sometimes increase not only for days, but for weeks together, and the strangulation be exceedingly alarming. In this case, the milk of gum ammoniac, but especially asafoetida, frequently proves a sovereign remedy, and though exceedingly nauseous, many children will take it tolerably well for the short time it appears to be absolutely required; and when they will not, it may be administered by way of clyster, dissolved in two or three table-spoonsfull of penny-royal, or common water. These medicines, however, will be improper in the very advanced stage of the disease, when attended with hectic heat, such bleedings as aforementioned, or with other consumptive symptoms; a caution equally necessary in regard to the bark, which in the absence of these symptoms, and after the stomach and bowels have been well cleansed, is frequently very useful at the latter stage of the disease, when the patient has been exhausted by its long continu-

ance. Upon the same plan with the *asafoetida*, camphor and castor are frequently beneficial, and have the advantage of being less nauseous ; but seem to be proportionably less powerful.

It will sometimes be of no small service, to rub the hands and the soles of the feet, with the compound spirit of ammonia, several times in the day ; or the spine of the back, and the pit of the stomach, with oil of nutmeg, or oil of amber ; but as the smell of the latter is very unpleasant, it may be dispensed with, where the spasms are not exceedingly urgent. But when they are so, this oil is sometimes very useful, particularly when administered internally, and children of three or four years old will take a few drops of it very well, mixed in a spoon with a little Lisbon sugar ; from which I have seen as evident advantages, as from any medicine whatever. In a little child of my own, it immediately gave a turn to the complaint in the most violent hooping-cough I ever met with, and after almost every other medicine had been tried to no purpose ; so that from the hour she took it, the complaint was no longer alarming, nor tedious of cure. But frequently, no antispasmodic is equal to opium, in this, as well as in other diseases. With this view, to children of four or five years old, three or four drops of laudanum ; or if a pill be preferred, a grain or two of the storax pill ; and to younger children a small tea-spoonful of syrup of white poppies, taken at bed-time, will not only quiet the cough, and remove the strangulation during its operation, and procure the patient some rest, by which the strength will be recruited, but in many cases, seems to have a kindly operation on the disease itself. It is in this way, I doubt not, that the hemlock has gained so much reputation. It should not, however, be confided in alone ; which the strong manner in which it has been recom-

mended has led some people to do, to the exclusion of other remedies evidently indicated, which would, at least, have shortened the disease. Joined with emetics and other means, as the symptoms may indicate, it is, nevertheless, a valuable medicine.

If obstructions in the lungs be suspected, blisters should be applied, and recourse had to other remedies ; but at this period, the cure is chiefly to be accomplished by perseverance in cooling laxatives, by a vegetable and milk diet, (especially asses milk) pure air, and general exercise.

The cough after having disappeared for a week or more is sometimes found to return with great violence, especially upon taking cold ; but a gentle purge or two, an emetic, and abstaining from heavy food, generally remove it in a very short time. Should this fail, a grain of asafoetida taken, two, three, or four times a day, according to the age of the child, never fails to check it immediately. If these cautions should be neglected, the cough will oftentimes prove extremely tedious. And in this case I have known the *lichen*, or ash-coloured ground liver-wort prove an excellent remedy. One ounce may be boiled in two pints of water, to one ; or a like decoction of the oak-lungs, and a table-spoonful be given two or three times a day to infants of a year old. These have had an immediate good effect when infants have appeared to be going fast into an hectic state, after the hemlock, oil of amber, and the bark have failed, or when the disorder has hung on unpleasantly.

THE only thing that remains to be spoken of, is the proper diet, which is, indeed, of great importance, and for children even of five or six years of age, ought to be little more than milk and broths. These are easily digested, and

will afford them much more good nourishment than any kind of meats, and will sit much lighter on the stomach than puddings or pastry; the latter of which is exceedingly injurious. The objection made by old nurses against milk, that it breeds phelgm, is utterly founded in a mistake that cannot be too frequently controverted. Should the milk, however, be found to curdle remarkably soon on the stomach, a little common salt, Castile soap, or testaceous powder, may be added occasionally; or asses milk may be substituted for cow's. These light nourishments soon pass out of the stomach, or if brought up by coughing fifty times in the day, (as I have known them to be) a child of four, or five years old, will immediately take more of them with avidity, and will be better supplied in this way, I mean, by taking a tea-cupful at a time, than by making set-meals, or taking a large quantity at once. If the child should be thirsty, a little apple-water, toast and water, tamarind-tea, and other thin drinks, will be pleasant and useful. Patients treated in this way will get through the complaint, if not severe, in a very short time; and where it proves violent, a child will struggle through this long disease, without any considerable loss of strength, or will be very soon recruited by a decoction, or cold infusion of bark, together with gentle exercise and country air, the best restoratives after every kind of disease. Such, at least, has been my own experience in this tiresome complaint, by which, I know, parents are usually as much alarmed as by any incident to childhood. But unless it has been long neglected, has taken place in the month, or is joined with some other disorder, I have never experienced it to be fatal, and then only in one instance, (where I was called only a few days before the child died) though I have known eight or nine children in a family labouring under it at a

time: and I mention this as an occasion of consolation to those who may have been led to think more unfavourably of it.

SPASMODIC-COUGH.

MUCH akin to the former complaint, is a troublesome cough, properly enough denominated spasmodic, or convulsive. In a certain state of the air it is sometimes very general, and young children, and even infants in the month, are then attacked by it, as well as adults. The irritation seems to be about the superiour parts of the throat, and is exceedingly distressing, at the time of coughing; but the patient, though an infant, seems immediately afterwards to be quiet and comfortable. This cough is not usually attended with fever, nor other ordinary symptoms of a common cold, nor is it to be relieved by the like means; the cough remaining dry and hoarse under the use of oily and demulcent remedies.

CHILDREN of two or three years old may be cured by the hemlock, and gentle laxatives; but the former being less adapted to infants in the month, such may take a few drops of the syrup of white poppies, three or four times a day, and their bowels be carefully kept open; which means seldom fail of removing the complaint in a few days.

I have met with this complaint very frequently in children from two to four years of age, in some of whom it had been of several weeks standing, and after various remedies for coughs had been made trial of. In every instance, the complaint has been immediately relieved by the hemlock, and in a week or ten days, been usually removed.

There are, however, some more formidable cases, in which the symptoms are greatly aggravated, and children

continue longer in a convalescent state. I have also been called to visit some under all the semblance of approaching death, with profuse sweats, rapid and feeble pulse, and laborious respiration; supposed by able physicians to be sinking fast under the spurious peripneumony, or inflammatory affection of the chest.

Although reduced to this state, under the best conducted cooling plan, yet has a recourse to hemlock succeeded equally well, giving immediate relief to all the symptoms. But a degree of difficulty of breathing all along merely spasmodic, having, in some cases, still continued, it has after a week or ten days, been found expedient to have recourse to the bark. At the same time, the violence of the cough attended with very copious secretion of phlegm, which young children seldom spit up, has required two or three gentle emetics, which have then not failed having a happy effect, though administered previously to the hemlock, I have known greatly aggravate the symptoms, probably, by increasing the debility, and disposition to spasm.

As many practitioners not very conversant with this complaint under its more aggravated appearances, have been led to consider it as inflammatory; so others, from the continuance and violence of the cough, have expected it to terminate in the whooping-cough, but have been equally mistaken; this being a distinct species of spasm, and never attended with the true *hoop*.

THE CROUP.

THE Croup, or acute asthma, is a complaint somewhat similar, to the two former, to which, perhaps, children only are liable, called, therefore, the spasmodic asth-

ma of infants. But this complaint has been greatly mistaken both by writers and practitioners ; there being, certainly, two species of it, perfectly distinct and requiring very different treatment ; the one being acute, or *inflammatory*, and the other *chronical*, or *spasmodic*. The latter rarely attacks those who have arrived to the age of ten or twelve years, and chiefly seizes infants newly weaned ; and is then the most severe.

Remote causes of this disease may possibly be the lax fibre of children, the abundance of moist humours natural to them, and the vast secretion from the air-vessels in the lungs ; and perhaps the change of food from the milk, which is easily assimilated, to one requiring more digestion.

THE mean of prevention, is the same as in most other diseases peculiar to children. If this complaint arise from the laxity of their solids, the quality of their food, and the natural weakness of their organs of digestion, the general means of prevention, as well as of cure, will be readily indicated. Their food should be such as may be easily digested, and may prove nourishing. A due proportion of milk and broth, (taken either separately or mixed) whilst children are very young, or light meats when they become older ; good air and exercise, and a careful attention to the state of the bowels.

THE immediate CAUSE of the *chronical* (or lingering) croup, seems to be spasm ; the cause of the inflammatory, is a morbid secretion of a viscid mucus in the wind-pipe, adhering so firmly to its sides as to impede respiration. The quantity and viscidness increasing, gradually lessens the diameter of the part ; and if it effect this to a considerable degree, the disease must necessarily prove fatal.

THE symptoms of either kind are spasmodic, being such as would be produced by any thing constantly irritating the

wind-pipe, or diminishing its diameter. They will therefore very much resemble those of the nervous asthma, but the complaint differs materially from the common spasmodic asthma of adults, in the peculiar croaking noise made in respiration, (from whence it has its name) and in the violence of the attacks; which, however, when the disorder is light, and in the commencement, leave no apparent indisposition, save a certain dulness, and a sense of fear, in children capable of expressing it. The fits, especially in the spasmodic croup, frequently terminate by sneezing, coughing, or vomiting, and return without any regularity. It is at other times attended with a quick pulse, laborious breathing, a sharp, and shrill voice, and a flushed countenance, which grows livid during the fits.

THE CHRONICAL Croup has been well described by several writers, particularly as it has appeared in *Scotland*, and is divided into two principal stages; in the latter of which, it is said, no method of treatment is effectual; but that medicine is never more efficacious than in the first, if the disorder be not combined with some other, and it be taken in time; though the crouping may be very considerable. This I saw remarkably exemplified in a little boy of my own, who was nearly cured in two days. The sovereign remedy is agreed to be *asafoetida*, which should be administered both by the mouth and in clysters, in doses according to the exigency of the complaint; and where no marked inflammation has taken place, may be given very freely; and afterwards the bark, when the spasms remit.

BUT this account of the disease (though no distinction is made by most writers,) can certainly apply only to the *spasmodic*, and is not the dangerous disorder usually known in this city by the term Croup, being totally unaccompanied with inflammation, at least is so, whenever *asafoetida*

is thus useful. And this seems further evident from the recovery of such patients, and the consequent want of proof of the existence of that tough membrane found in those who have died of the *inflammatory* croup; in whom the disease is always of short continuance after the croaking noise in respiration, has taken place. Whereas, the other kind of croup has sometimes been known to continue for two months, and then has yielded to opium. Instances have likewise been met with of children crouping for two or three days, and being then seized with whooping-cough, which has instantly removed the croup: these circumstances seem to prove that species of croup to be truly *spasmodic*.* I have seen it repeatedly in this form attend the cutting of teeth; being then the mere consequence of irritation, as we see cough, and various other symptomatic affections induced at this period.

For this species however, besides asafoetida, emetics, and hemlock will frequently be found necessary, and sometimes the bark; one or other of which must be persevered in, as long as any symptoms of disease, and particularly the croaking noise, shall continue.—From the success attending this practice, and a proper discrimination of the disease, (one species being often mistaken for the other,) there may be more room for hope in this cruel disorder, than some physicians have been induced to think.

BUT the *inflammatory* croup is a most dangerous disorder, and is, I believe, always attended with a quick pulse, cough, and difficulty of breathing very soon after the croaking noise has taken place; and sometimes before; although in other instances children have, in its commencement, appeared in perfect health. It does not, however, always seem to be an original disease: being

* See the Chapter on *Inward-Fits*, page 25.

sometimes a consequence of bad fevers, especially the scarlet-fever, as well as of some chronical disorders that have reduced the patient's strength, and is then much more dangerous. But the worst kind frequently appears to arise from the same causes as the malignant sore-throat, only having its seat lower down, and is therefore more severe. And it has, in several instances, accompanied it, as it may be known in the early stages of that complaint, by the croaking noise, peculiar to the croup; and, I believe, is in such instances generally fatal. It has likewise accompanied the last stage of the putrid thrush, and carried off the little sufferer in a few hours. It has been known also to come on insidiously, and has even disappeared entirely; but recurring again, has proved suddenly fatal before the child has seemed to be in danger; and even after eating an hearty meal.

ON the means of CURE for this species very few directions will be necessary; the disease (except in rare instances) being always short, and the treatment, as I think, very evident. Four, six, or even more leeches should be immediately applied to the throat, especially if there be any perceptible fulness of that part, or manifest fever, and a blister be applied to the nape of the neck. The patient may likewise breathe the vapour of warm water with vinegar in it, or an embrocation be constantly applied to the throat. After the leeches and blisters, a vomit should be administered, and the sickness kept up for several hours, or even days, by small doses of the antimonial powder. In some instances, the free use of calomel has had a very beneficial effect; and lately, in three or four, a tincture of the *fox-glove* has proved successful; but like other remedies, it must be had recourse to early in the disease. At the close of the complaint, and to pre-

vent a relapse, the bark proves highly serviceable, and will also restore the strength of the patient.

RICKETS.

THIS is a late disorder in *Europe* ; and *England* is said to be the part in which it first made its appearance, though some writers have conceived that it raged at the same season over all *Europe*, through the coldness of the weather. It was first noticed in the western parts of *England*, about the year 1628, and is said to have taken place upon the increase of manufactures, when people left the villages and husbandry, to settle in large manufacturing towns ; where they wanted that exercise, and pure air, which they had enjoyed in their former situation, and employments.

It may therefore, frequently arise from unhealthy parents, especially from mothers who pass a sedentary life in a bad air, and feed upon a weak and watery diet ; from children's food being weak, watery, or too viscid to be properly digested ; but above all, perhaps from bad nursing, and children being left wet, dirty, or exposed to a cold moist air, without sufficient covering ; from want of proper exercise, and from close and crowded apartments. On this account, children of poor people are particularly liable to this disorder : parents, and governors of work-houses, ought therefore carefully to guard against the last mentioned causes.—Or lastly, from the habit of body being reduced by the long continuance of almost any of the complaints hitherto considered.

THE usual SYMPTOMS of rickets are soft flesh ; bloated, or a very florid countenance ; weakness ; dislike to motion ; with enlargement of the belly, head, and joints.

The wrists and ankles enlarge first, afterwards the back, and breast-bones ; and, indeed, all the bones swell and become soft, especially the more spongy ones. The pulse is quick, and feeble, and the appetite and digestion usually bad. Teething is commonly late, though not frequently difficult, but the teeth often rot early and fall out. Great acuteness of mind has been observed in this, and some other chronical complaints. It seldom attacks children before they are six months old, or above two years.

As it appears to arise from a general weakness and relaxation, the indications of CURE are to brace and strengthen the solids, and to assist the digestion. These ends will be promoted by wholesome, and dry food, suited to the age ; good bread, or biscuit ; and roasted meats, rather than boiled ; with a little red Port wine. Should the child be too young to eat flesh meats, its diet ought to be chiefly of broths, milk, rice, millet, pearl-barley, (thoroughly boiled) salep, and semolina, with spices, if it be not inclined to be feverish.—This, however, is sometimes the case in older children, though, perhaps, too rarely suspected, and requires in that stage of the disease a very opposite treatment ; even small bleedings being then found serviceable.—The child must above all have good nursing, and especially exercise and air, without being kept very hot or very cold : unless a strict attention be paid to these particulars, medicine can be of but little service. If the child be too young to exercise itself by walking and such like, the nurse, besides affording it every exercise it can bear, may induce the infant to exert itself to no small advantage, by the following easy means. She has only to dash a few drops of water suddenly in its face several times a day, in the manner often done to

recover people from a swoon, though less violently. This will oblige the infant to put almost every muscle into action, by which the blood will be forced through the minute vessels, and many of the advantages of exercise produced, and in a more powerful manner. To the same end, linen cloths wetted with cold water, with the addition of a little spirit of any kind, may be applied to the arms and legs, or along the back-bone, every time the child is dressed or undressed, especially if the bones in any of these parts are become enlarged or distorted by the disease. The parts should afterwards be rubbed very dry with a piece of warm flannel.

If the child be of a gross habit, the eighth part, or a quarter of a grain, of ipecacuanha powder, taken once or twice a day ; gentle pukes, and very brisk purges, especially of the powder of scammony with calomel, prove of use. The compound tincture of aloes is also a good medicine, a few drops once or more in a day, (as may suit the state of the bowels) taken on a bit of sugar, or otherwise. In such habits, all foundation of a cure must be laid in reducing the belly to its proper size, and in strengthening the stomach. If rather delicate, the cold-bath is often of more service than any thing else : but this should not be entered upon in winter, nor without previous purging. Frictions afterwards with flannel and aromatic powders, or the fumes of frankincense, mastic or amber, especially on the back and belly, will further tend to strengthen the habit. Besides such means, the cold infusion of bark, and other bitters, especially columba ; or small does of the martial flowers, tincture of myrrh, or steel-wine, are often serviceable : but it was before remarked, that a good diet, air, and exercise, especially riding on horse-back, are of the utmost consequence ; which

if duly persevered in, and the state of the stomach and bowels properly attended to, will often effect wonders. Parents, therefore ought not to despair of a cure under any circumstances, provided the internal and vital parts are not diseased ; much less should they be so greatly alarmed as they usually are, at the slightest symptoms of this disease, when its true cause has been discovered, and proper remedies are applied. Besides, this is one of those chronical or lingering complaints, which are sometimes gotten the better of by time, and like the following one, wears itself out, as it were ; and to which the abovementioned means will greatly contribute.

SCROFULA, *or* KING'S-EVIL.

THIS is a disease of glandular parts, though in its progress it attacks the adipose membrane, (or fat) the eyes, the muscles, tendons, and even the bones themselves, especially the joints. It seldom makes its appearance before two years of age, nor later than ten or twelve, (unless it be in regard to affections of the eyes,) though there are more exceptions in respect to the latter period ; and it then often proves fatal, by falling on the larger joints, the lungs, or other noble part. It is frequently observed to follow other disorders, particularly the small-pox, whether taken naturally or from inoculation, and more especially the former ; also the hooping-cough, measles, teething, rickets, and many other disorders already mentioned. Hence, the nature of this disease is better understood, as it so often falls upon weak and tender habits, either originally of a soft fibre, or worn out by previous diseases ; or is gradually brought on by a heavy, indigestible, and bad

diet, or a low, wet, and unhealthy situation. It is, however, sometimes found to be hereditary, but will very frequently lie dormant for two or three generations, and afterwards appear with redoubled violence ; as well as affect the greater part of a family very much, whilst the rest shall be entirely free from it. It is often attended, or rather preceded, by a peculiar look about the eyes, which are generally large, and a thickness of the upper lip ; and sometimes proves a source of ill-health through life, but is not usually fatal in the first instance. Long before the external glands become affected, especially in young subjects, the belly is sometimes observed to be hard and enlarged ; and at length, the *mesenteric* glands, (which are little glands dispersed through the bowels) the lungs, and even the pancreas, (or sweet-bread) have been found diseased.

Though this is always a very unpleasant complaint, and frequently does not admit of so much relief by medicines as many other disorders, yet it oftentimes disappears at the time of puberty, (and sometimes sooner) especially in females. On the other hand, after disappearing for several years, during which perfect health has been enjoyed, the humour has, unexpectedly, fallen upon some internal glandular part, frequently the *mesentery*, (or connecting membrane of the bowels) occasioning various pains and complaints, often attributed to other causes, and has undermined the constitution ; producing ultimately the true consumption, or a fatal wasting.

ON the means of CURE I shall treat only generally : for though I thought it very necessary to mention this disease amongst others to which the state of childhood is liable, I am sensible how difficult it would be to point out any thing like a general, and adequate remedy. At

its first appearance, however, bitter, or mercurial purges, are sometimes of use, as are also antimonial vomits, and sometimes burnt-sponge, (either in substance, or infusion) and saponaceous medicines warmed with spices, and continued for a length of time ; though it should be observed, that this disorder sometimes falls on habits of a less cold temperament, and may then, for a while, call even for cooling remedies. But when the disease is confirmed, lime-water, and decoctions of the woods, together with crude antimony, bark, and steel, with wine and a generous diet, are most to be depended upon as internal remedies ; from some of which, I have seen no inconsiderable cures effected. But in this, as in other chronical complaints, good air and exercise are of the greatest importance. Indeed, the advantage of exercise in this disease is so great, that I wish to lay a very great stress on it. But then it must be daily had recourse to, and, by degrees, be so considerable, as to render the patient every night sensibly fatigued. Thus, I have known riding behind a carriage, almost without the aid of any medicine, entirely remove the complaint.

WHEN there are external tumours, I am satisfied that the opinion I have already given to the public, in a larger tract on this complaint, is both rational and safe ; and that whenever they are at all disposed to come forward, and not seated on improper parts, they ought to be brought to as speedy a suppuration as is possible. To this end, paste made of honey, flour and yelk of egg should be applied twice a day, and the parts be electrified. The scrofulous virus when thrown on the surface, so far resembles the cancerous, that it is inclined to spread to a considerable extent ; but as tumours of the former class will bear rougher treatment than the latter, I am confident that

much benefit may arise from the use of external stimulants, by stopping the progress of the disorder in the neighbouring parts, as well as by invigorating them, and thereby disposing the ulcers to heal. Of this kind, are fumigations of the red sulphurated quicksilver, and quicksilver with brimstone. Also light frictions with mercury, so as to make it pass freely through the lymphatics of the distempered parts, without affecting the system, have in a course of time been beneficial, and deserve to be brought into more general practice than they have hitherto been. But the application of such remedies requires the best medical aid.

Under such a plan, it will be very necessary that the body be kept open; and to this end, one drachm, or more, of Epsom salt may be dissolved in a pint of water, and taken every day as common drink. This quantity of salt will give very little taste to the water, and, in some instances, has alone had a good effect in this dreadful complaint, especially in stronger children and such as are otherwise healthy. On the other hand, children of a delicate and spare habit are more likely to be benefited by the tonic (or bracing) remedies before mentioned, and such as warm and invigorate the system; of which class the following is a very good one.

Take of prepared ammonia two drachms;

Gentian-root, sliced, one scruple:

Pour on these twelve ounces of brandy. Let the quantity of a desert, or a table-spoonful be taken in a proper quantity of water, three or four times a day.

I have further reason to be confirmed in the above opinion respecting stimulants, from observations communicated to me by Mr. PARTINGTON, who since the hints I threw out in the aforementioned work, has made use of electri-

city with very good effects, in these, as well as other cold tumours and ulcers I had mentioned ; which have all healed very kindly, or been dispersed in a reasonable time, in consequence of this stimulus to the parts. When scrofulous ulcers have been healed, and only some small tumours remain, I have experienced very good effects from the external use of as strong a solution of camphor in oil of almonds as can be made, which has dispersed them very soon.

AN obvious discrimination should be made in regard to tumours about the neck, at the sight of which parents seldom fail to be alarmed ; since many of them are of a harmless nature, or even salutary, the consequence of a light feverish disposition, or of some little cold from a sudden stroke of air on the neck. These rise suddenly, become painful, and increasing daily in size, either very soon put on the usual appearance of suppuration, or begin to subside ; and whether they break or not, are no indication of any thing materially wrong in the habit. On the contrary, scrofulous tumours always rise slowly, unless in very young infants, and immediately after the small-pox ; often continue a long time at a stand, and sometimes are not only months, but even some years before they suppurate ; and then with very little pain, or true inflammation.

I shall only add further on the head of scrofula, what is very well known, that sea-bathing alone, sometimes effects a perfect cure ; and, perhaps, in tepid water, oftener than in its natural state. Should the child therefore have several scrofulous tumours, or the habit be conceived to be much affected, trial should be made of the sea in whatever manner it may be determined the tumours shall be treated, if not dispersed by sea-bathing, as they frequently are.

PAIN *in* MAKING WATER.

THIS complaint was slightly noticed in the chapter on teething; and is, I think, more commonly troublesome at that period than at any other during infancy, unless when attended with gravel or the stone. The pain indicated by the violent shrieks of very young children, is sometimes exceedingly great, so that the infant seems going into fits; but on the coming away of the urine, it is immediately quiet, and returns to its wonted cheerfulness and habits.

Demulcent and sheathing medicines will sometimes remove it, if they can be taken in sufficient quantity; which if the infant be very young, or nourished at the breast, is not always the case. Such, however, are milk of almonds, with syrup of marsh-mallows; barley-water and gum arabic; spermaceti and manna; the compound powder of gum tragacanth, and such like. But should these fail to procure sensible relief, in a couple of days, the child should be purged every other day with manna and castor-oil, and be put into a tepid-bath morning and evening: in the intermediate days of purging, it should have a clyster of Castile soap and water; and should take every six or eight hours a saline draught with fennel-water, compound powder of gum tragacanth, four or five drops of antimonial wine, and twenty or thirty of spirit of juniper, sweetened with syrup of marsh-mallows. Such a draught with occasional little variations, and the aforementioned means has always succeeded in the course of five or six days.

MUCOUS URINE.

THE complaint here intended arises from an affection of the coats of the bladder, or of the prostate gland,

which surrounds its neck ; though the same symptoms may also arise from the ureters or kidneys, whether owing to a stone or other stimulus.

It sometimes appears during teething, and other inflammatory affections, and will then call for cooling remedies : it generally disappears when the teeth have made their way through the gums, and the fever subsides. In more advanced childhood, there is nothing like fever or other precise marks of disease ; though, it may be said, this disorder more commonly attacks children of a tender and delicate habit.

Like the former complaint, it is attended with frequent inclination to void the urine, and with more or less pain in its excretion, or more commonly, before it begins to come away. But in this disorder, the urine is always very foul, is loaded with a very ropy mucus, and sometimes comes away discoloured with blood, and at others, small clots fall to the bottom.

Although the urinary passages in young people are stimulated by very trifling causes, yet is this appearance, nevertheless, alarming ; as it may, possibly, arise from a morbid affection of the prostate gland, or the bladder, and must then be a serious complaint ; or it may be owing, it has been observed, to a stone in any of the urinary passages, in which case a cure cannot be effected as long as the stone remains. Fortunately, however, this is not a frequent cause in early childhood ; nor is it the case here intended.

THE disorder sometimes yields in two or three weeks to mere diluent, and softening and aperient medicines, such as the milk of almonds, with syrup of marsh-mallows ; barley-water and gum arabic ; spermaceti, manna, and such like ; and it is probable, in such instances, might in a short time disappear of itself.

In other instances, more powerful means are required ; which, either by creating a different stimulus, change the action of the parts affected, or, by their restringency, prevent that secretion which has been the cause of the irritation.

The lime-water, water of kali, balsam of copaiba, or a decoction of the bark, seem to be the properest remedies in the absence of fever. From three to ten drops of the water of kali, or balsam of copaiba, according to the age of the child, will be a proper dose, and may be taken three or four times a day, as the urgency of the complaint may require.

After appearances of being perfectly well, the urine, in some instances, has become as turbid and mucous as at first, and the former irritation returned. In such case, the complaint has immediately yielded to an infusion of the golden-rod, of which two or three table-spoonsful may be taken three times a day.

SUPPRESSION *of* URINE.

THIS dangerous disorder is easily distinguished from the ordinary suppression of urine, in which the secretion is duly made in the kidneys, and the urine conducted to the bladder, but being detained there, the accumulation is readily discovered both by the pain and tumour on the lower part of the belly, or seat of the bladder. In the former, on the other hand, the urine is not secreted at all; but the superabundance of watery fluid is retained in the blood.

This disorder, I believe, is less common in children than in adults, especially elderly people, but is equally fatal in both, if the secretion be not restored in about twenty-four hours.

This disorder has been met with in infants several times of late years, and the disease in all of them has been introduced by similar symptoms; a slight feverish heat being observed for about a week, accompanied with purging, and sometimes bilious vomitings. Towards the end of this time, the urine has been made in small quantity, and in about twenty-four hours the discharge of it entirely ceased, and the patients have died unexpectedly, without complaining of pain or any particular uneasiness.

Internal inflammation is judged to be the source of the first symptoms, which has been followed by a mortification. One child was recovered from the suppression and restored to health by the application of leeches to the belly, and a blister near the seat.

THE abovementioned remedies, with gentle purges, clysters, and cooling diuretics, and the repeated use of the warm-bath, are, probably, every thing that our art has to offer for the cure of this novel disease in infants; and were its symptoms more distinctly marked, so as to lead to a recourse to it on the earliest approaches of the disorder, the remedies might be oftener successful than they have hitherto been.

DROPSY.

IT will be necessary to do little more than notice this alarming disorder, as well from its being an uncommon one, as altogether beyond the management of parents.

It was remarked in the chapter on teething, that although a considerable deposit of water may be made on the tops of the hands and feet during that process, a more ex-

tensive collection of water under the skin, or a dropsy of the belly, does not take place if there be no internal disease. And, indeed, whatever bad health may for a while be induced by difficult teething, a morbid affection within is very rarely a consequence, unless a purging has been improperly suppressed.

But infants previously in bad health, and especially such as have been prematurely weaned, or fed upon too thick victuals, not unfrequently have induration of the mesenteric glands; and the complaint may be followed by dropsy, if teething should at this time prove unusually difficult; and is then more likely to be fatal.

HAVING said thus much on the nature of the disease, as a caution to parents, I shall only add, that if a few drops of tincture of squills taken three or four times a day, be not soon attended with a good effect, very powerful remedies will probably be necessary even in very young children; and should generally be joined with steel and bitters. Some warm embrocation also, such as spirit of hartshorn properly diluted, or a liniment with spirit of turpentine, squills, and mercurial ointment, may be rubbed over the belly, two or three times a day; while the bowels are kept well open by suitable purgatives, and as dry a diet as may be, is made use of. But the known dangerous nature of this disease will lead parents to conclude, that the best advice should be speedily sought in order to a due application of these remedies.

THE GRAVEL.

ALTHOUGH we see children of almost every age afflicted with stone in the bladder, and such frequently voiding gravel mixed with their urine; the gravel is, by

no means, a common complaint in others. I have, however, been several times consulted for children, under three years of age, who have been so affected.

The disorder is usually slight at this early age, and merely accidental, sometimes disappearing of itself in a few days; or after taking only a little oil and manna, or other soft laxative, and some of the demulcent medicines recommended for mucous urine. In other instances, I have directed a decoction of marsh-mallow and parsley roots, or the infusion of sweet-fennel and wild parsley seeds, sweetened with syrup of marsh-mallows, or honey. A bit of castile soap also may be dissolved in milk and taken as a breakfast, or supper; or a few drops of balsam of copaiba, be administered two three or times a day, and the body kept open by the tartarised kali, or the polychrest salt. Should the complaint be attended with much pain, the warm-bath would, probably, be useful; but I have never known it so great as to require any kind of opiate.

Parents should, however, be apprised, that this complaint is now and then more obstinate, and will require more attention and skill than they can be supposed capable of bestowing; yielding to no treatment without great length of time.

INCONTINENCE *of* URINE.

THIS is not a very common complaint in children, unless combined with the stone in the bladder, and then is not so constant, nor to the degree that is intended here. It is an involuntary flow of the urine, sometimes by day as well as during the night; arising from a relaxation or other affection of the sphincter, or contracting muscle, of the bladder, but is not attended with manifest fever, nor symp-

toms of decay. An affection of this kind, in which the urine runs away in the sleep only, is more common ; and I have known it continue to the age of fifteen or sixteen years when not properly treated, and afterwards yield to sea-bathing. If, however, it be an original affection, and confined only to the night, (when every part is more disposed to relaxation) and the child be young, it usually disappears as the child grows up, and thereby acquires strength ; but it may be often assisted in the mean time, merely by exercise, living on dry food, dashing the contiguous parts with cold water, and such little means as may tend to impart tone to the sphincter muscle and the neck of the bladder ; and scrupulously abstaining from drink near the time of going to bed.

The total incontinence generally comes on gradually, and is sometimes attended with an excessive, and weakening discharge, even in very young children, and is more difficult of cure ; so likewise, if the complaint should succeed to other disorders, as the stone, or inflammation of the neck of the bladder ; and especially, if it follow a disposition to sleeping too much, or the palsy of any part.

For the CURE, tincture of catechu, or of gum kino ; the bark ; balsam of copaiba ; and white vitriol may be made trial of : but nothing is usually so effectual as repeated blisters applied over the seat, or lower part of the back ; with proper doses of the tincture, or the powder of Spanish-flies, given in some soft emulsion, and under the superintendence of some medical man. These means have generally removed the complaint if there has been no morbid affection of the spine, as is sometimes the case. But should they in any instance fail, recourse should be had to sea-bathing, and other tonic, or bracing remedies.

EXCESSIVE THIRST.

THE affection here adverted to is not *symptomatic*, as in fevers, but is an *original* disease, though it seems to depend, indeed, upon a peculiarity of temperament ; and is equally incident to children, as to adults. It is, however, so rare a complaint in either, that but little can be said of its true nature, there being but few instances of it upon record. Of these, one began at, or soon after birth, and another when the child was about four years and a half old. The former is now an adult, and the mother of eleven children, in whom the disorder still continues in a very extraordinary degree. The latter is yet a child, is very lively, and though apparently healthy, drinks every twenty-four hours ten quarts of water, and makes daily twelve of urine, as clear as the water he drinks. Through the day he requires a draught every half hour, and once every hour in the night. An instance of this disease presented about three years ago to the Middlesex-hospital : this was in a child, but the thirst was not so great as in the aforementioned ones.

Though I can, indeed, have but little to offer with any confidence, for the treatment of this disorder, which is both rare, and depending upon a peculiar temperament of the body ; yet this curious disease appears worthy of some notice in a work intended to comprehend a complete account of the disorders of children. A slight record of it will also possess the further advantage of apprising those who have the care of their health, of there being such a complaint ; which it is presumed cannot fail of being acceptable, if any into whose hands the work may fall should meet with children who have any evident tendency to it.

How far internal, bracing medicines, with the cold-bath and electricity, or attempting to promote insensible perspiration, might tend to a removal of it, upon its first approaches ; though I can by no means venture to say, they seem to be worthy of trial ; but if neither these, nor any other remedies that may be suggested, should pretty soon afford any degree of relief, it is presumed, that no violence should be offered to so peculiar a temperament, lest some worse or real evil should appear in its place.—I am happy, in finding, that since the former edition of this work, any part of the advice therein suggested, should turn out adapted to this cruel disorder : so that in two out of three very late instances of it, a perfect cure has been effected, by wearing only a very thin dress ; exposure to the air ; and the use of the bark, and of the cold-bath ; together with acidulated drinks to quench the inordinate thirst.

The SEVEN-DAYS-DISEASE, and PECHEGUERA of Spanish South-America.

I SHALL close this part of the work with a brief account of two very extraordinary disorders, which would have been noticed among the early complaints of infants, if they had been diseases of this country, or even much known in other parts of *Europe*. As the *seven-days-disorder* has, however, actually made some appearance in this quarter of the globe, and may, therefore, at some future period, become more common, it may be proper it should be mentioned in a work of this kind.

The following brief account is taken from the *Spanish* work of *D. Ulloa*, (*Disc. XI. §§ 19, and 20*) and *Barrère's Voyage to Guinea*.

It is a common disorder of new-born infants in both quarters of *America*, and equally dangerous in the high, as in the low parts. A great number of infants die of it, without any symptom antecedent to its accession, leading to a suspicion of it. They are, on the contrary, apparently healthy and robust, when the disorder makes its attack in the form of epilepsy; and few of those who are visited with it are found to recover. Though, it has been said, this complaint is not altogether unknown in *Europe*, it is neither so common, nor so dangerous. It is conceived, that the best preventive would be to guard infants from being exposed to the wind, till the first seven days are over.

This imperfect account allows of very little comment, though it seems probable, that the disorder may not be very unlike the tetanus* of the *West-Indies*.

INFANTS at *Guaneavelica* are still liable to another very extraordinary complaint. Having escaped the seven-days-disease, they thrive well until the third or fourth month; they are then seized with cough and affections of the chest, which they there call *pecheguera*. The complaint goes on increasing without any sensible relief from the medicines made use of; and a swelling taking place, they presently die. The disorder attacks only the *white people*, or children of the *Spaniards*; the *Indians* and the *Mongrels* are not subject to it. The way to escape it, is to remove infants from the spot, before they are two months old, and to carry them to more favourable climates, into one of the *Zuebrades*, (or low grounds between the mountains) that are at a little distance. It is imagined, that the cold and intemperature of the climate is the occasion of infants being so soon seized with this complaint. This may be the case in some degree: but the vitiated habit

* Page 101.

of body of their parents, and the sulphurous vapours continually arising from the furnaces for the extraction of mercury, may likewise contribute to it. In fact, these vapours are so abundant, that when reunited by means of the cold, they form such a thick cloud in the atmosphere, during the season there called summer, as to cover all the colony.

APPENDIX.

SINCE the chapter on the Cow-Pox was printed off, some untoward occurrences have taken place in the course of a general inoculation among the poor in a parish in the neighbourhood of town ; and as, possibly, some vague reports might alarm many families that may not have had the occasion anywise explained to them, the author has been induced to add a few words by way of appendix.

THERE can be no room, however, to doubt, after the complete investigation conducted both by physicians and surgeons of the first respectability, and well acquainted with the cow-pock disorder, that the true occasion of the disagreeable symptoms which occurred, in a few instances, will tend rather to confirm, than discredit the practice of vaccine inoculation : and this assertion is founded upon the clearest evidence, that the unusual symptoms have arisen wholly from that kind of mistake in the parties concerned, of which the publicity must serve to prevent a repetition, and prove a timely caution to others.

Indeed, the perplexities have originated from similar sources with those I have already alluded to in the chapter on the Cow-Pox ; and further confirm the sentiment there advanced, that the precise attention requisite is to procure the *genuine* cow-pock matter, or rather *fluid*, in the right stage of the disease, and to insert it properly in

the arm of the patient ; circumstances familiar to every practitioner conversant with the disorder ; who can never be mistaken either in regard to the matter itself, or in the proper mode of inserting it.

It may be right to add, as this inoculation may be said to be yet in its infancy, and every little accident may be brought forward to its discredit, as was done half a century ago in opposition to the inoculation of the *small-pox* ; that various circumstantial failures, and some temporary ill-effects exactly similar to those now under consideration, actually took place in the former ; and from the same precise neglect, or want of correct discrimination on the part of some of its advocates.

I embrace this opportunity of further observing, in favour of this new inoculation, that since this appendix has been in hand, accounts have been received of no less a number than 29,400 persons having gone through the operation, with uniform success, in a single province in *North-America* ; and that the practice is rapidly spreading through various parts of *Europe* ; and cannot fail, therefore, very soon to establish its expedience, or correct any possible mistakes.

The only practical observation that has resulted from this extended experience, respects adult persons ; who, especially if of a robust habit, may be advised to abate somewhat of their wonted full diet, and accustomed exercise ; for want of which the febrile symptoms have, in a few instances, ran higher than was expected, and in one or two, required medical aid.

A
T R E A T I S E
ON THE
DISEASES OF CHILDREN,
AND
MANAGEMENT OF INFANTS
FROM THE BIRTH.
VOL. II.

INTRODUCTORY PREFACE.

HAVING in the preceding volume considered all the more important diseases falling under the immediate province of the *Physician*, there remain only a few anomalous matters in his department ; which having some relation to other complaints now to be noticed, may be suitably arranged in this part of the work. These will be classed relatively to other matters ; having here a principal regard to disorders falling under the province of the *Surgeon*, with others that may be said to be of a mixed kind, but of which all persons venturing to prescribe for children should have some general idea ; being rendered, it is hoped, in this appropriate work, as obvious and intelligible as possible.

IN regard to surgical Operations, the treatment of Fractures, large Abscesses, and other important articles in this department, more remote in their nature than other parts of this work ; it may be expected, that some reasons should be offered for what has been advanced. And, indeed, if either more, or less has been said on these subjects than some

readers might expect, it has been with the design of enabling the more intelligent to form some judgment of what may be expected in the several cases, without perplexing them by offering more than they could be supposed anywise to comprehend. In less serious instances, and such as may occasionally fall under the reader's own management, the same degree of information is held out, as in the medical department in the former volume ; so that in every instance, the inquisitive reader may be competent either to superintend and to act, or, at least, to judge of the nature of the case, and its probable termination.

To the several Complaints will follow suitable *Directions* for the general *Management of Infants* in every article of importance to their health ; to which particulars a *third* volume is wholly devoted.

BUT beside those affections consequent to birth, which may be precisely termed diseases, many infants present themselves to the world under circumstances that call for immediate assistance, being, as it were, in a kind of intermediate state between life and death, and even with the appearance of being really dead ; but may, nevertheless, be reanimated by timely and judicious aid, so as to be *perfectly* rescued from any peculiar dangers.

On this account, some practical directions on this head, it is presumed, may form no unsuitable *Introduction* to this volume, as the subject could not, with strict propriety, be arranged under the head

of children's diseases. And what I have here to offer is the result of an experience that has been attended with more success than might have been expected *on the Means of recovering apparently Still-born Infants.*

I have, indeed, both at the hospital and elsewhere, met with many instances of children born with very little, and others without even the smallest appearance of life; some of whom have remained entirely destitute of any sign of it, for more than a quarter of an hour; and yet have been happily restored. I pretend to little or no skill in this business not generally practised, and can scarcely guess to what to attribute this success, unless it may be an unwearied assiduity and perseverance in my attempts, whensoever there are no certain signs of death, till I conceive nothing is possibly to be expected from them. And this has so often succeeded, that I have been tempted to think its importance may, possibly, not have been sufficiently attended to by every practitioner. I rest this presumption, not only upon some fortunate events where I have had little or no previous ground for hope, but where other practitioners had, in some instances abandoned it. A certain steady perseverance in our attempts to preserve life, is, indeed, not only a duty we owe to the Public, as long as the least hope may remain, but one successful attempt is an abundant recompence for many failures; especially, as I imagine we shall rarely be disappointed whenever

there may be the least positive ground for hope of a favourable issue.

As to the MEANS, they consist only of warmth, clysters, stimulants, and especially blowing forcibly into the wind-pipe.

THE ordinary stimulants are the smoke of lighted brown paper, or tobacco ; juice of onions ; frictions with hot cloths, and with brandy ; cold brandy poured on the chest, and on the navel-string where it is inserted into the belly ; striking the child's bottom, and the soles of the feet ; stimulating the nose, and upper parts of the throat with a feather, (drawing out the mucus, or froth, that may present ;) with every other similar mean calculated to excite a strong effort, especially that of crying ; to which our attempts more particularly tend. On this account, I believe, no great benefit is to be expected from stroking the blood along the cord, or immersing the after-birth in warm water ; the fetal life being extinct, the recovery of the child will depend on the blood passing freely through the lungs, which it cannot do till the child is brought to breathe freely and forcibly ; the continuance of which also is never secure, till it begins to cry. To these ends, I have depended above all upon blowing into the wind-pipe, through the mouth ; which I am satisfied, may be more effectually done by the mouth of the assistant being placed immediately upon the child's, than by means of a blow-pipe ; (although the air is, indeed, certainly less

pure;) at the same time, preventing a premature return of the air, by the fingers of one hand placed at the angles of the mouth, and those of the other on each side of the nose. But I have sometimes imagined, that I might attribute much of my success not only to the *continuance* of this, but to the *manner* of doing it, by attempting to imitate *natural* respiration, by forcing out the air I have thrown in, by a strong pressure against the pit of the stomach; thus alternately blowing in, and pressing out the air, for a long time together, omitting it only now and then, to make use of some of the above-mentioned means: which latter, however, (though some gentlemen have thought fit to dispute it,) can do very little till the child begins not only to gasp, and that with shorter intervals, but also to breathe in a pretty uniform manner. At this time, should the child not be disposed to *cry*, which is frequently the case, nothing is so likely to succeed as a tobacco, or other very stimulating clyster; and putting a very little Scotch-snuff, or other pungent powder, up the nose; which latter if they induce sneezing, will soon be followed by a strong cry, and the child be with certainty restored.

Amongst other means, that of warmth was recommended; to which end, the infant should be entirely covered with *very* hot cloths, which should be renewed as fast as they become at all cool: or the body may be immersed in a tepid bath of salt and water, or milk, and be well rubbed all over:

the cord may likewise be suffered to bleed a little, especially if the face or body do not soon acquire the natural colour—but this ought seldom to be done, or the navel-string be divided as long as any pulsation is to be felt in it.

To these means may be added the cautious use of electricity, which appears as likely to be successful in these, as in most other cases to which it has been applied : but I have never been in a situation to make trial of it in time, or I certainly should ; as I once knew a child happily recovered by it, after being laid out for dead, for near two hours, in consequence of a fall from a two-pair of stairs window.

To what has already been said on a steady perseverance in the use of these means, the very great success of the *Humane Society* in restoring life to drowned persons, after two or more hours have elapsed ; may be advanced as a further inducement to midwives and friendly assistants, (who cannot themselves be proper judges when life is irrecoverably extinct) to continue making every probable effort. For if an infant be not born positively dead, the fetal life, though long dormant, may be roused into action ; and the living principle, if respiration can be promoted, will extend its influence through the animal frame, nor will fail to support itself, if no vital part has been injured in the birth.

But should these several means fail ; as a last resource, a very different kind of stimulant may be tried, and instead of laying the infant aside in a warm

flannel, it should be exposed to sudden and severe cold ; which I remember once to have succeeded after the life of the child had been entirely despaired of.

I shall just add, that, amongst other symptoms of some supposed irrecoverable injury a child may have sustained in the birth, is that of a discoloured and often fetid, or bloody water forcing out of the nose, after the lungs have been two or three times artificially inflated. Under these circumstances, however, I many years ago succeeded in two or three instances so far as to animate children sufficiently both to breathe and to cry ; but they afterwards lay in a moaning state for four or five hours, and then expired. To succeed thus far, indeed, if I am rightly informed, may prove of importance, where the course of a family estate may be pending on a living child. I have, however, lately been fortunate enough to succeed completely, under the most unfavourable circumstances, and after a great quantity of discoloured mucus, and something like meconium had been forced up both from the throat and nose ; and the child, an unusually large one, is still living.

It will be presumed, I dare say, that the above scrupulous attention is not designed to be inculcated in every instance of apparently still-born infants, but principally where the death of the child may not only not be certainly ascertained, but there has previously been reason to expect it would be brought

alive into the world.—The great importance, however, of the subject, it is hoped, will be a sufficient apology with most readers for the length of these directions ; and as the attempt to restore infants to life has always been a most pleasing employment to myself, the desire of being an occasion of inducing others to a *perseverance* in the use of the like means, renders me indifferent to the censure of any female practitioners in midwifery, who, (if such there be) may deem it prolix or superfluous. The anxious parent, I doubt not, will always covet a *perseverance* in every mean, as well to reanimate, as to preserve her offspring.—To the candour and auspices of such, the ensuing pages are commended, with the author's most cordial hopes, that they may, on many occasions, successfully supply the want of oral advice.

A
T R E A T I S E,

Ec. Ec. Ec.

IN the former volume, devoted to such diseases as fall more immediately under the province of the *Physician*, considerable attention has been paid to disorders of the skin ; either from their being found to require direct medical treatment, or from their standing in connection with other disorders falling strictly in his line.

There are, nevertheless, many affections of the skin of a different kind, which being either usually unconnected with any disorder of the system ; or else forming sores on the surface requiring their appropriate topical applications ; accord more strictly with the province of the *Surgeon*, and may therefore more properly constitute a part of the present volume.

Of the cutaneous affections falling under one or other of the latter descriptions, I shall, for order sake, treat first of such as appear on the Head,

SCALD-HEAD.

THE Scald-head is a very troublesome complaint, and is said to be often a scrofulous symptom ; but it is cer-

tainly more commonly communicated by contact, and when lighting on a scrofulous habit may be more difficult of cure. It is, indeed, highly contagious, especially amongst children, at schools, or other places where they mix freely together, exchange hats, or other covering of the head, with such like intercourse ; by which means, it has sometimes been communicated through a whole school.

FROM some considerable experience, I may venture to say, that being usually a mere complaint of the skin, it may be most successfully treated by external applications. This disease is seated in the little glands at the roots of the hair, is sometimes dry, but at others moist, and then produces little ulcers ; which being thoroughly cleansed, and made to digest, may be safely healed up ; as I have found in many other affections of the skin, in which the system has, often over-scrupulously, been conceived to be concerned.

It is not uncommon, I know, to administer a variety of internal remedies, and perhaps they may sometimes be required ; though I think I have seldom given any thing more than lime-water, or a decoction of the woods, and a few purges at the decline of the eruption.

If the complaint be taken early, before it has spread far over the head, and whilst the scabby patches are small and distinct, it may frequently be cured by an ointment made of equal parts of sulphur, flour of mustard, and powder of staves-acre, mixed up with lard or butter ; or by the sulphur ointment, with a small addition of the white calx of mercury. And this last preparation may very safely be made use of, if the patient be kept within doors, and the body properly open ; as it will be necessary to rub in only a small portion, once or twice a day, on the parts immediately affected. But if the disease should spread, or has

already extended itself over a great part of the head, the hair must be shaved off, and the head washed twice a day with a strong decoction of tobacco; repeating this process till the scabs disappear, and the hair grows up from the parts they had occupied. Or, instead of the decoction of tobacco, the head may be well washed with the soap lotion of the shops, with the addition of a small quantity of the pure water of kali; and the scabs be anointed with the ointment of nitrated quicksilver, in the place of the sulphur ointment and calx of mercury; the former being a very powerful, as well as safe application, and may be used in any quantity that may be necessary.

BUT the complaint is sometimes of long standing before medical assistance is solicited, and is not only extended over all the head, but the scabs are thick, and rise high above the surface, returning as often as they may fall off. I have, however, never failed to cure the common scald-head by a method not so much generally unknown, as too seldom complied with in time, on account of its supposed severity. It consists only in well washing the head, first close-shaved, with a piece of flannel and a strong lather of soap-suds, and then rubbing in very forcibly the tar-ointment* and a good quantity of the powder of white hellebore, for near an hour at a time, always using it very warm; and covering the head with a bladder to preserve the ointment on the part, as well as to keep it from sticking to the cap, or other covering made use of. When this has been done three or four times, not only the scabs, but the hairs will also loosen, which must be pulled out, however unpleasant the operation may be, as it will, indeed, prove a kindness in the

* This ointment should be made with the petroleum, instead of the common tar directed in the pharmacopœia.

end ; and must be repeated till all the hairs be taken out ; after which new hair will rise free from scabs, which is a sufficient indication that the disorder is effectually removed.

The following plaster has lately been made use of with great success, in very bad cases.

TAKE a full pint of common ale, and three ounces of the finest flour ; mix them intimately ; and having set them over a very brisk fire, add two ounces of yellow resin, stirring them constantly till they be perfectly incorporated, and take on a smooth gelatinous appearance.

This paste is to be spread lightly on strips of linen, and applied all over the head, after the head has been well washed ; and the strips be taken off and fresh ones applied every day, until the complaint is removed.

THERE is, however, a spurious kind of scald-head, that is sometimes more difficult of cure ; but it requires nothing but patience in the use of one or more of the above remedies, or at most, an alterative plan of the flower of sulphur, or of some mild mercurial preparation, with the common decoction of the woods, or the Lisbon diet-drink.

Or, should the difficulty consist in getting out the hair entirely, or destroying the diseased glands at its roots, quick-lime may be had recourse to, in one form or other, and is exceedingly preferable to an adhesive pitch-plaster ; but must be used with caution. In a few instances, the milder mercurial ointment has a wonderful efficacy. This remedy, however, as well as the quick-lime, should be made use of only under the direction of some medical man, and ought then to be cautiously applied ; and instead of being forcibly rubbed in, like other ointments, should be only spread lightly, and very thin on the scalp : the body should at the same time be carefully kept open.—

In the spurious scald-head, particularly, it may be prudent to open an issue, or fix a seton in the nape of the neck.

SCURFYNESS *of the* HEAD.

SOME infants early contract a scurfyness on the head, which increases as they grow up ; becoming likewise very thick, and itching exceedingly. It is more commonly dry, but is sometimes moist, and even discharges a great quantity of a very thin fluid. In either case, it can rarely be termed a disease ; and is scarcely worthy of notice but in a view to preventing mischief, from the application of improper remedies ; or its degenerating into a real complaint, through neglect. Amongst the poor, indeed, it often arises from that source, and can be removed only by proper washing, and combing the head, and otherwise keeping it clean. But should it arise spontaneously, as it sometimes does, both in early infancy and about the time of teething, very little need to be done, nor ought to be, further than keeping the head clean, and often combing, or brushing it cautiously, as above directed : at most, the scabs may be touched, every now and then, with a little cream till they begin to loosen, or with a drop or two of arquebusade water if they are too moist ; at the same time, carefully avoiding taking cold on the part—no bad general application, partaking of the nature of both, is a bit of butter dissolved in warm small-beer.

THE ITCH.

THIS disorder, so commonly known and easy of treatment, is mentioned chiefly for the sake of intro-

ducing a caution against popular washes and girdles ; which are generally either useless or hazardous. Such are often had recourse to in order to avoid the unpleasant smell of the brimstone-ointment ; which, however, if the whole body be well rubbed with it, for a week or ten days, rarely fails curing the genuine itch. There is, indeed, a spurious kind, (as of the scald-head) which is far less, or often nowise contagious, but is more difficult of cure, or at least more tedious than the genuine. Should the brimstone-ointment, therefore, fail, sulphur should be administered inwardly, and sometimes mercurials ; which may likewise be added to the ointment, and in a few weeks, at most, will not fail of removing the complaint. It is common to administer at the same time some alterative diet-drink ; such as the decoction of sarsaparilla, or sassafras.

HERPES *or* RINGWORM.

THE Ringworm, like the foregoing complaints, is a disease of the skin, infesting some children almost annually, and appearing in dry scurfy blotches, on different parts of the body. It becomes troublesome chiefly from the violent itching that constantly attends it, and would probably get well of itself : it even sometimes has the appearance of being critical ; or is, perhaps, rather an indication of some favourable change in valetudinarians, especially in adults ; who are sometimes found getting the better of lingering complaints at the time the ring worm makes its appearance. It is, however, often a blemish ; as it frequently attacks the hands and face, and especially the forehead.

THE ringworm is certainly very easily cured, the eruption yielding very readily to stimulating and astringent

remedies. Ink therefore, (as it contains an infusion of galls) has been a common, though inelegant application, and may serve very well where better forms are not at hand: it is sometimes made into a paste with flower of mustard. Spirit of wine; lotions of diluted extract of lead, with the addition of vinegar, or white vitriol; and ointments containing lead, answer very well; or a liniment of calcined zink and lard: but the ointment of nitrated quicksilver is preferable to most others. The use of a flesh-brush is a good preventive in habits accustomed to the complaint.—It can be only in unhealthy children that there can be any fear in regard to external applications, or need of internal remedies.

Should the ringworm spread and become sore, it should be treated as directed below.

The ULCERATING HERPES.

THIS is a malignant species of the above complaint, but is generally local. It is mentioned in this place, as having relation to the former; being itself rather a sore than an eruption, and not very common in children.

SUPPURATIVE, or digestive applications may be made use of in the early stage of the complaint, such as ointments of minium, soap, and Venice turpentine, or a suppurative poultice,* in order to liberate the diseased, and obstructed glands on the surface, and absorb the acrid discharge. After this, the parts should be washed with some soap lotion, and lastly, with a strong solution of vitriol. Should these fail, the ointment of nitrated quicksilver will

* A very good poultice of this kind may be made of figs, onions, and white lily roots, boiled in water to a soft pulp, with, or without the addition of a little bread and milk.

be proper ; and as the last remedy, caustic applications ; of which, butter of antimony is the best, with which the little ulcers may be touched lightly from time to time, under the eye of some medical person. The patient may likewise take a decoction of burdock-roots, or sarsaparilla.

The SHINGLES.

THE Shingles is a complaint different from the foregoing ; but being rarely met with, has not been accurately distinguished from other herpetic eruptions. It appears in the form of blisters, of different sizes, with, or without some redness between them.

This complaint is, however, an affection of the system, which the others are not, and is attended with fever, as well as often preceded by shivering, sickness, and sometimes even vomiting ; but is not dangerous.

The feverish symptoms, however, do not wholly disappear on the eruption of the pustules ; which gradually subside as the fluid they contain acquires a thicker consistence ; after which, the pustules dry off in the form of dark-coloured crusts ; and the disease terminates in a period of from eight to twelve days ; and not unfrequently without medical aid. But in the confluent species, which is attended with the most fever, the patient should be kept in a warm atmosphere ; take some light cordial ; and when the pustules are drying off, a gentle purgative should be administered.—It is amongst the vulgar errors, I believe, that when this complaint appears on the breast or loins, if it should extend round the whole body, it would prove fatal. This form of the disease is termed the herpetic belt.

WARTS *and* CORNS.

THOSE warts which appear upon the fingers, hands and necks of children, may be considered as a small inconvenience, or a trifling deformity, rather than as a disease. They are seldom painful, except they have been improperly irritated ; and have no tendency to proceed to any unfavourable termination.

The hard, and almost insensible wart, with a broad base, and having a covering of skin, is the most common species. This little excrescence seldom rises high above the level of the surrounding skin, on the back of the hand ; and is often remarkably flat and low when it spreads on the inner part of the hands or fingers : and being a spurious production, seldom possesses a portion of vital energy sufficient to prolong its duration beyond a few years. Hence, we commonly observe, that those warts which have appeared in infancy, disappear imperceptibly about the time of puberty, without the aid of external applications,—where the hands have been almost covered with them, I have known them all disappear in the course of two or three weeks.

THE various methods that have been recommended of destroying warts may be reduced to two ; viz. such as interrupt the circulation of the blood through the substance of the wart ; and those which destroy, or otherwise consume its structure.

Ligatures, therefore, made of horse-hair, silk, or waxed-thread, answer the first of these intentions ; and whenever they can be applied, are the least dangerous, and effectual mode of destroying the wart. For it is a certain fact, that warts destroyed by ligature return less frequently, than when destroyed by any other means.

The knife, or caustic applications, and the actual cautery (or hot iron) is the second method, and is more, or less suitable according to circumstances.

When the surface of a wart is destroyed by caustic, the hard crust must be scraped off the next day, and the medicament be re-applied; and this process must be repeated daily until the excrescence be destroyed down to its root.

When a wart is situated on a joint, or on one of the lips, or the eye-lid, it will not be prudent to use caustic applications.

Excision seems to be the least proper remedy, because the excrescence is so very liable to sprout again when it has been cut through; and is only advisable when it is proposed to employ caustic applications to the wounded part.—Amongst popular remedies, may be mentioned that of rubbing them with the juice issuing from the common garden slug, divided in the middle; in a few days after which I have known them to disappear.

CORNS appear always on the feet, usually the upper part of the toes and on the joints, or under the nails; and are painful, especially if pressed much by tight shoes, or other covering of the feet. They differ in other respects from the wart, the corn having the appearance of an inverted wart, the surface of the former being not unlike the inferiour part of the latter.

The corn seems to be little more than hardened skin, and to be owing merely to compression: it is therefore rather a morbid change of that part, than an organized excrescence; and on that account does not endure the rough treatment of the wart. It may, however, be safely pared down from time to time, but not to that degree as to be made to bleed, or be rendered sore. Indeed, it is

an operation I should not advise parents to perform on their children, though, by no means, so hazardous as in adults, especially those advanced in years. The common wafer made use of for sealing letters, moistened and applied to the corn, is both a harmless covering and defence, and has sometimes appeared to loosen this excrescence, and occasion it to be thrown off.

STEATOMATOUS TUMOURS, *or the* SUET-LIKE WART.

BESIDE the common wart, there is a different kind of exerescence, which, though when appearing about the neck and face, commonly passes for a wart, is in reality a suppuration of the little sebaceous, or suet-like, glands. It appears chiefly about the face, neck and head, where this kind often grows in great numbers, especially in teething children, and will fall off, and appear again frequently during that period. They discharge a suety, or cheese-like matter; after which they heal up, and return again, like the stythe, or styte on the eye-lids; which will be noticed in its place.

As a preventive, the adjacent parts may be well rubbed two or three times a day; but when the tumours are become of a certain size, they should be inclosed in a ligature, before they break, or be touched with the caustic called nitrated silver, immediately afterwards, if not seated near the eye, or other important part; or in that case, by the hand of the surgeon.

INFLAMMATION *of the* EYES.

HAVING discussed the foregoing trifling matters, we come to more serious complaints; and first, those of the eye.

This important organ, however, has also some slighter affections, which require but little attention. Accordingly we find, that the eyes of a new-born infant are very apt to water, as it is called, and be slightly inflamed, especially if born in the winter season. If it be owing to taking cold, it is probable it has been either immediately after the child was born, before it has been given away to the nurse, or very soon afterwards ; and on this account, a flannel cap becomes a very necessary part of its covering previously to its being formally dressed. This kind of inflammation generally disappears of itself, upon merely keeping the head warm, or by washing the eyes with a little rose-water. Should it, however, continue many days, or perhaps seem to increase, three or four drops of the water of acetated litharge, and a grain or two of white vitriol may be added to two ounces of the rose-water ; and the infant take a little manna, or rhubarb and magnesia, if the bowels should not be sufficiently open. Another trifling affection is a redness, frequently near the outer corner of the eye, called blood-shot ; which, though it will continue oftentimes for some weeks, requires no application at all, as it always disappears without leaving any weakness or blemish.

BUT there is an inflammation to which infants are liable, that sometimes continues a long while, and therefore calls for further attention. This affection is accompanied with the true appearances of ophthalmy, or inflammation of the white of the eye, attended with a discharge, as in the ophthalmy of adults : it will sometimes get a little better by common means, but seldom remains so for many days together, and generally increases at the end of the month.—It often seems connected with the state of the bowels, and the coming on of a purging will then frequently carry it off.

Only the most common remedies, however, are called for, unless it prove tedious,* as it has been said it sometimes does, in which case the parts behind the ears should be made sore, by three or four threads of worsted, or cotton, covered with blistering plaster, and placed there as I have before described ; and the part be kept sore for some time. Previous to this, it is often necessary to apply a blister to the neck, and a leech to one or both temples ; to keep the body open, and make use of the cooling eye-water before recommended. If the child be inclined to a frequent return of it for years, as even very healthy children are, it will sometimes degenerate into what is termed the watery-eye ; an excellent remedy for which is a grain of white vitriol, mixed with such a small portion of fresh butter as will form it into a liniment, which should be put into the inner angle of the eye every night, at going to bed. In some of these cases, however, the ointment of nitrated quicksilver has proved a more speedy remedy, and is a less painful application ; but should be continued for some weeks.

THERE is, however, a case of *watery-eye* attending older children, in which the discharge is very hot and acrid, and the eye at the same time inflamed. These affections disappear, and recur again suddenly, without children having sensibly taken cold, or any other manifest cause ; and will continue so doing for a great length of time. It is not a common complaint, and as far as I have noticed it, has attended only such children as have other marks of humour, so called, or some disorder of the skin.

The complaint has proved very obstinate, both in regard to the inflammation, and watery discharge, though

* For a more full account of the treatment of *ophthalmia*, see *Surgical Tracts*, 3d Edition.

all the common means of cure have been successively attempted, until the head has been shaved, and an oiled-silk cap applied over the whole scalp. This never fails to procure a great discharge from the head ; in consequence of which, I have known the disorder removed in two or three days.

The PURULENT SORE-EYE.

BUT there is a far more formidable inflammation, which has of late years been called the *purulent sore-eye*, distinguished from every other by the vast quantity of thick matter discharged, and great swelling of the lids.

This is so dangerous an inflammation as to require the best advice on its very first appearance. It now and then appears at the birth, but more commonly seizes an infant a few days afterwards, without any previous complaint ; though the nurse is sometimes blamed for having suffered the child to take cold ; but it is, indeed, as truly an infantile disorder as the thrush, or any other that takes place in the month ; and if neglected, may not only destroy the sight, but dissolve the eye itself, in less than a week's time. I have likewise seen it exceedingly violent in children of four or five years old, but rarely at that age without some blow, or other accident.

In this disease, every thing that may remove inflammation, and unload the vessels of the part, should be immediately had recourse to. The body should, therefore, always be kept open, and leeches be applied to the temples, especially in children of four or five years old. In bad cases, at this period, scarifications also of the inner-coat of the eye-lids, (which generally falls out upon their being opened ;) blisters to the back, nape of the neck, and be-

hind the ears, are often essentially necessary. It should ever be remembered, that in advanced childhood, the taking away of blood at the beginning is often not to be dispensed with, nor to be sparingly done. The application of one leech to the temple, or neck will have no good effect, though often repeated : two, three, or more, according to the strength of the child, should be put on at a time, and a blister to the back soon afterwards ; which will often do more to conquer the inflammation, than most other means put together, if had recourse to in time.

Even in new-born infants, it is expedient, in some cases, both to take away blood, and to keep up a constant discharge from behind the ears ; which may be done by applying, every three or four days, a narrow slip of blistering plaster to these parts, and afterwards dressing them with the spermaceti cerate, or other mild ointment. The edges of the eye-lids should be kept constantly greased throughout the day, especially in new-born infants, that the thick matter may find an easy escape. At night, the cerate of acetated litharge may be spread on soft linen, and applied to the eye, and over it a very soft cold poultice made with the compound water of acetated litharge, laid on as lightly as possible ; that by its constant moisture, the eye-lids may always be kept supple. But if the discharge should seem to be confined, or the eye affected by the weight of the poultice, this application should be changed for soft linen rags, which should be frequently wetted with cold brandy and water, or some yet more astringent lotion.

Throughout the complaint, astringent and stimulating applications are to be made use of, unless the disorder be very slight, or sensibly gives way to a mere greasing the

lids, as it sometimes will ; being not only far preferable to other means, but so necessary, that should emollient poultices, and merely cooling eye-waters be depended upon, the event were likely to be fatal. What may be the very best remedy, in the worst cases, it may not be very easy to determine, having for a long time succeeded, and in reasonable time, by different means ; but having of late years had frequent, and successful recourse to the camphorated water of *Bates's* dispensatory, I am inclined to give it a general preference to other remedies. One drachm, or a tea-spoonful, of this, to two ounces of pump water, will be a sufficient strength to begin with. A few drops should be instilled into the eyes, several times in the day, as well as the lids be frequently washed with it. It will sometimes be necessary to inject it into the eyes with a syringe, the lids being so much swelled, as not to admit of its entrance by other means.

The external remedies alluded to, in the place of the camphorated water, are the tincture of opium, and ointment of nitrated quicksilver, which may be applied every night at going to rest ; the former being dropped into the eye after the lids have been touched with the ointment.* It is sometimes proper to lower and soften the ointment with a little fresh butter.—In a late instance, the complaint was speedily removed by electricity ; the electric aura only being thrown on the lids.

It has been said, that where this inflammation has not

* This tincture and ointment are usually a very speedy remedy for the sore-eye induced by the small-pox, and measles, as also by scrofula ; a complaint under almost every other mode of treatment very tedious of cure. This ointment is, in every case, to be applied very sparingly, by means of a small camel-hair pencil ; and in most cases only on the inner part of the under eye-lid, or to the larger angle of the lids, (as it is called) towards the nose.

been properly treated from the beginning, the eye is sometimes exceedingly injured by it, so that even the eye will burst. At other times the coats become thickened, and the pupil, or sight of the eye, more or less opake, by means of one or more specks which the inflammation has occasioned. It should be remarked however, that we sometimes meet with an agreeable surprize at the decline of this formidable complaint, and find the eye much less injured than had been suspected at the time we were first able to get a sight of it. And at others, even where the coats of the eye have burst, the acqueous humour (so called) has been restored ; and being afterwards retained, by the healing of the coats, the patient has recovered his sight. On the other hand, the latter have sometimes been so greatly injured, or the pupil contracted, that though the eye has not been sunk, the sight could not be restored by any means. In other instances, a long and cautious use of proper escarotics, or slight caustics, and paring off the thickened coats, have afforded a certain degree of vision ; but the attempt requires a Master's hand.

SORENESS *of the* EYE-LIDS.

THIS complaint is so much of the nature of the former, but with more sensible affection of the lids, and less of the eye itself, that I need only to recommend for it, the use of the like applications. In particular, slight scarifications of the lids, in some instances, and the application of the ointment of nitrated quicksilver, and immediately afterwards instilling a few drops of laudanum into the eye, will usually very soon have a good effect ; but the cure is often a work of time.

VENEREAL SORE-EYE.

IN the permanent inflammation in young infants, I have been inclined to the opinion of the late Dr. HUNTER and others, who after having tried a variety of means, and assisted in consultation with different physicians, have been induced to think, that many of the very stubborn inflammations originate from a venereal taint, and can only be successfully treated by its specific remedy, in one form or other. It becomes practitioners, however, to be very careful how they take up such an opinion in particular instances ;* it is, nevertheless, right to observe, that if none of the means above recommended should produce a favourable change in eight or ten weeks, I believe nothing but mercury will have any lasting effect.

THOUGH it is not my design to treat on this disease, it may not be amiss to observe, that whenever a venereal taint actually exists, it is more safely treated by unction than in any other way ; and infants would probably be cured much oftener than they are, if recourse were had to it in better time than it commonly is. If internal remedies, however, are for any reason preferred, I have found none so efficacious, convenient, and safe, as the late Mr. WARD's white drop.

THERE is likewise an inflammation of the eyes in children, arising seemingly from a foul state of the first-passa-

* The *French* physicians seem too much inclined to regard the purulent ophthalmia in this view, being a very common symptom, amongst others truly venereal, in many infants in the *Hôtel-Dieu*, *l'Hospice de Salpêtrière*, *Vaugirard*, and *des Enfants trouvés* ; but when this species of sore-eye appears alone, the case should not be hastily concluded to be venereal, however violent the inflammation may be.

ges ; and then no application to the eyes will remove it, without recourse to active purges. Two or three grains of calomel should, therefore, be given at night, and jalap, or senna-tea the next morning ; and these should be repeated three or four times in quick succession, as the child may bear it.

A like inflammation may also take place during difficult teething. In this case, the gums must be lanced, and the operation repeated, as may be found necessary.

SPECK on the EYE.

THIS, it has been said, is often a consequence of long continued inflammation, and is mentioned by writers as very difficult of cure when of long standing. I shall only observe, that in a very great number of cases, unless where the part has been exceedingly thickened, a drop or two of the water of ammoniated copper instilled into the eye, two or three times a day, has removed such specks, in the course of a few months, and sometimes much sooner, without any other means. Should this fail however, recourse should be had to a solution of the muriated quicksilver ; one grain being put into four ounces of water, and the ointment of nitrated quicksilver be applied in the manner before recommended ; and like the other remedies be continued as the disposition to inflammation may admit ; but is, perhaps, a too powerful one to be guided by a parent's hand.

CATARACT and GUTTA SERENA.

ALTHOUGH these disorders are not very common in young children, they do, nevertheless, sometimes occur ;

and infants have even been born with a cataract in one or both eyes, or totally deprived of sight by the gutta serena. I shall therefore speak of the two diseases together, and the rather because some of the remedies are here accommodated to both.

In the former of these, the pupil of the eye (or the sight, as it is called) appears white, or pearl-coloured, instead of black; but in the latter, has no unnatural appearance, except that it is larger than common, is attended with a certain unmeaning stare, and does not dilate, nor contract itself when exposed to different degrees of light, like the sound eye, or does so in a very small degree.

It would, indeed, ill become a man of the least character and experience to affect to have much to offer in a way of remedy for these dreadful complaints; the oldest and best practitioners never having pretended to be very often, or by any means uniformly successful in the treatment of them. From what I have known, however, they are not to be despaired of, and I should think it unpardonable not to hold out every occasion of good, or of comfort in my power, however little it may be, in cases wherein art has so frequently failed.

Where a disposition to cataract and gutta serena have been suspected, I have known very considerable benefit obtained, and even the sight fully restored by an alterative plan of calomel and hemlock; or by the long continued use of an aromatic vapour with the compound spirit of ammonia,* conveyed to the eyes by means of a tube, or funnel, properly adapted; and by brushing the eyes and the adjacent parts, several times a day, with soft and smooth brush-

* Half an ounce of the spirit with two ounces of water, should be kept boiling over a lamp, and be made use of two or three times a day.

es, which are properly constructed by *Messrs. Ayliffe and Gee*, in *Wardour-Street*.

Somewhat agreeable to this idea is the plan since recommended by Mr. WARE in his late treatise on some of the more important disorders of the eye ; and like many other useful discoveries, was the effect of accident. Upon this he happily improved, having succeeded in several instances of incipient cataract when the consequence of external injuries, by exciting a transient inflammation. The application he has employed to this end has been either alone, or diluted with a third or fourth part of a weak solution of muriated quicksilver, and sometimes mixed with oil of amber ; which has in some cases been soon attended with a sensible good effect, though in others not till it has been repeated for several weeks. The success attending these cases, Mr. WARE adds, encourages him to hope for the like where the cataract is either soft, or fluid ; in which state it usually is when the disorder is discovered in infants, either at the time of their birth, or shortly afterwards.—The due application of such remedies, however, requires the assistance of that writer himself, or of some other surgeon.

IN the gutta serena, electricity has succeeded in several cases ; and in one instance, a lady whilst under such a course, suddenly recovered the perfect use of her eyes, through a blow she accidentally received on the face, which produced a copious bleeding from the nose. In imitation of this, the like discharge has been lately artificially procured by wounding the internal vessels of the nostrils ; but without apparent good effect. Mr. WARE in the abovementioned treatise confirms the favourable opinion of electricity, and adduces four instances of gutta serena cured by it, and as many by a medicated snuff composed of ten grains of vitriolated quicksilver with about a drachm of the compound

powder of asarabacca, or in place of that, the liquorice-root, or sugar : but these remedies, also, should be ventured upon only under the inspection of the surgeon. To these brief observations I have only to add, that I have seen a gentleman of near sixty years of age, for whom I had been consulted about three years before, who some time after having been let blood in the abovementioned way, and making trial of electricity without any apparent advantage, has recovered from a gutta serena of near two years standing, under the use only of a common eye-water; which as I cannot conceive to have had any share in the cure, conspires with a few similar instances to hold out ground of encouragement to other sufferers, sufficient to prevent despair, under this melancholy disorder.

I SAY nothing in relation to the cure of the cataract by a surgical operation, either by extraction or depression, except it be, that neither of them is advisable for infants unfortunately born with the disease, till they shall have attained to five or six years of age.

The STITHE, or STYE.

THE stithe is a small inflamed tumour on the edge of the eye-lids, more commonly on the side towards the nose ; but there are sometimes two or more at a time. It rises suddenly, as if from a cold, or blast, and in the end suppurates, or forms matter, of a thick, or cheesy consistence ; often, indeed, not for several weeks, or even months, but sometimes much sooner. It is occasioned by an obstruction in the glands of the eye-lids, and the matter being inclosed in a hard cist, or bag, the inflammation often returns in the same spot, till the cist being destroyed by repeated suppurations, the cavity is afterwards filled up, and the complaint disappears.

ALL that is necessary to prevent the returns of this temporary blemish, which greatly weaken the eye, is to imitate this process of nature. To this end, the little abscess should be lightly touched, as soon as it breaks, with the caustic called nitrated silver, cut to a point, (cautiously avoiding doing injury to the eye) which by destroying the cist, at once removes the complaint.

When these stithes are small, or hang by a very narrow base, they may be safely cut off, or tied very tight with a bit of silk; and when separated, touched with the caustic before mentioned. But the care required in doing this, from the situation of the complaint, must be obvious to every one.

DEAFNESS.

CHILDREN are frequently rendered deaf, in different degrees, of one or both ears, by very slight colds; and at the expiration of a few days the hearing returns, without recourse to any means. It is, however, sometimes otherwise, and it becomes necessary to give a little purging physic; to keep the ears warm; and to confine the child to the house: and where this does not succeed, the complaint is not a little difficult to cure, unless when it arises merely from hardened wax. In this case, it will be proper to syringe the ears with warm water, to which should be added a tea-spoonful of lavender, or honey-water; and a few drops of warmed oil of almonds may be instilled into the ears at going to bed. If these little means fail, warmer remedies should be made use of, such as the following; which after properly syringing, will always be successful if hardened wax be the only occasion of the complaint.

Take of Oil of Almonds, half an ounce,
of Rectified Oil of Amber, twenty drops,
of Camphorated-spirit, half a drachm,
of Tincture of Castor, one drachm ;

mix these together, and instil four or six drops, previously made warm, into the ear affected, night and morning ; afterwards inserting loosely a bit of cotton, to prevent the escape of the oil.—Merely covering the afflicted ear closely with a piece of brown paper at going to bed, has in several instances removed a recent deafness.

DEAFNESS, however, is not unfrequently owing to a very opposite cause ; the want of a due secretion of wax ; and is then much more difficult of cure. To promote this secretion a few drops of the soap-liniment, oil of almonds and ether, and such like warm acoustics should be tried, and continued for some time, if they should not occasion much pain ; and in all cases, blisters may be applied behind the ears. The juice of onions, or a clove of garlic, raw, or roasted, put into the ears, has sometimes restored the secretion, and removed the deafness ; and in many cases, it has been effected by electricity. I have, however, lately fallen upon a method that has been universally successful by very simple means, consisting only in adapting an entire covering to the ear, made of any adhesive plaster spread upon thin leather, so as completely to exclude external air. The plaster should be renewed as often as it gets anywise loose, repeating it till the secretion of wax is in sufficient quantity ; which seldom requires more than five or six weeks. But I am sorry to add, that although aurists have found it so difficult to restore this secretion, and have therefore conceived, deafness to be often owing to the want of it, I have frequently found it nowise relieved by a return of the secretion. Possibly,

this may be owing to the cause of deafness lying in the nerve ; which, indeed, is frequently the case ; and here also electricity is particularly adapted, either through the external ear, or the *Eustachian* tube, within the mouth. Medicated snuffs also that invoke gentle sneezing, and discharges from the head, have sometimes been found surprisingly efficacious ; as hath likewise sea-bathing. Should these different methods fail, very little is to be expected from art. Nature, however, sometimes effects the cure, and children after having been deaf for several years, suddenly recover their hearing, especially females ; one fortunate instance of which happened lately.

ABSCESS *within the* EAR.

IT is not uncommon to meet with fetid discharges from the internal ear, either with, or without inflammation, and external soreness ; but this it usually in children of one or more years old, rather than very young infants. If a little cooling physic, and wiping out the matter frequently, should not remove the complaint, cleansing injections should be used, and some one of the warm acoustics, directed for deafness,* be afterwards dropped into the ear. The child should also be made to lie, as much as may be, on the affected side, that the discharge may have a free vent.

Should the quantity and fetid smell of the matter increase, a blister should be kept open on the nape of the neck, a few purges of calomel be taken, and on the intermediate days, very small doses of the powder of quicksilver with sulphur, as kept in the shops. But above all, in the worst cases, fumigations with the red sulphurated quicksil-

* See the preceding Chapter.

ver, and quicksilver with sulphur, mixed together, should be made use of morning and evening ;* from which I have seen the best effects when the discharge and fetid smell have been very great, and the ulcer of long standing.

EAR-ACH.

IT were needless to say much on this article. The pain is usually spasmodic, or if not, it is owing to taking cold in some part about the head, especially the teeth. In this case, a dose of cooling physic, and a little *Gascoyne's* powder at bed-time ; with a clove of garlic put into the ear, or a poultice of onions applied over it, will remove the pain : which is likely, however, to recur if accompanied with the tooth-ach.—If these remedies should fail, a blister may be applied behind the ear.

If it arise from spasm, the pain is often exceedingly severe, and is apt to return frequently ; being readily excited by every little cold. The juice of rue is here a good remedy, or if this fail, a little laudanum added to the liniment directed for deafness ; or six or eight drops of laudanum alone, made warm, and dropped into the ear, by means of a marrow-spoon, or such like contrivance.

TOOTH-ACH.

I JUST glance at this complaint, which frequently accompanies the former at every age ; while some young children suffer greatly by it during, or after shedding their first teeth ; and parents suffer with them exceedingly.

* To this end, a tube, or funnel, must be properly adapted, as was mentioned for the *gutta serena*.

If it be thought proper to have the teeth drawn, that is the well known and certain remedy ; but where that operation may be, on any account, objected to, palliatives will sometimes succeed, such as a blister behind the ear ; a clove of garlic, or three or four drops of laudanum, made warm, and instilled into it ; or a pepper-corn bruised, put into a little linen-bag wetted with hot brandy, and applied in like manner ; grated ginger and white of egg mixed into a sort of plaster, and laid on the cheek ; a drop or two of oil of cloves, on a bit of cotton, passed lightly into the hollow tooth ; and especially the paste, or plug, contrived by the late Mr. COCKRAN, and now in the possession of my son ; from which the great and good effects I have witnessed for several years, as they were my apology for mentioning this remedy in the life of Mr. COCKRAN, will not, it is hoped, now appear the less founded.

CANKER *of the* MOUTH.

THIS is chiefly a complaint of children ; is often talked of by nurses, and is usually as trifling as any. It has, indeed, been said by some writers to prevail very much in *England* and *Ireland*, and to be often a serious complaint. Such a disorder, if it really be canker, may be treated as under the next article ; but the common canker I have never found troublesome to cure.

It sometimes makes its appearance in the month, at others, about the time of teething ; and frequently at the age of six or seven years, when children are shedding their first teeth, and the second are making their way through the gums, which are covered with little foul sores, extending sometimes to the inside of the lips and

cheeks. It seldom requires more attention than was mentioned under the article of teething, any mild astringent application, and keeping the body open, usually effecting a cure ; or if otherwise, and the complaint makes its appearance at the time of teething, it will generally go away as soon as the teeth are come through.

The worst species of this complaint that I have happened to see, has been during the second period of teething, when a child has been shedding a number of teeth together, leaving the rotten stumps behind, which have been neglected to be drawn out. The whole gums will then sometimes be spongy, or dissolve into foul, spreading sores, and small apertures will be formed, communicating from one part to another, accompanied with an oozing of a fetid, and sometimes purulent discharge.

If the stumps of the decayed teeth can, in this case, be easily got at, they ought to be extracted ; after which some such application as the following will soon brace the loose gums, and heal up the ulcers, howsoever foul, or numerous they may be.

Take, of Armenian bole,

Myrrh,

Bark in fine powder,

Cream of tartar, of each a drachm ;

of Honey of roses a sufficient quantity to mix all
into a paste.

Take, of Lime-water, seven ounces,

of Tincture of myrrh, and

of Honey of roses, each, half an ounce ; mix
them together.

The gums should be touched several times in the day, especially after meals, and at going to bed, with the above paste, and the mouth washed occasionally with the mixture.

If no considerable change for the better should take place, in a week or ten days, a drachm of alum may be substituted in the place of one of the drying powders ; and instead of the above mixture, one acidulated with as much of the muriatic acid as the parts will endure, occasionally made stronger, till some amendment be perceived ; the belly being, in the mean time, kept properly open. If internal remedies be thought necessary, Peruvian bark, sarsaparilla, and mineral acids will be the properest ; and the child may be kept on a diet of milk and vegetables.

GANGRENOUS EROSION *of the* CHEEKS.

THIS complaint has some resemblance to the cancer, though it is much more dangerous, and is not a mere local disease. It appears to attack children from two, to six or eight years of age ; usually the unhealthy, and such as have been subject to worms.

It is, indeed, a very deplorable complaint, but not a common one ; and begins oftentimes with symptoms of fever, the whole body feeling cold on the approach of the disease ; after which a black spot appears on one of the cheeks or lips, and spreads fast ; but without any mark of inflammation. If neglected, or improperly treated, the whole side of the face is oftentimes eaten away, together with the lip, so that the bare jaw-bone and inside of the mouth appear. In the end, the entire lower-jaw falls down on the breast, and the whole side of the face is dissolved into a putrid mass ; a wasting purging taking place from the offensive matter that is continually swallowed, especially by very young children.

IN the CURE, internal as well as external remedies are required ; but only such as correct putrescency, and support the strength, appear to be of any use. A few drops of the muriatic acid, therefore, taken inwardly, in an infusion of red rose leaves, or in the child's drink ; the saline draught in effervescence ; and in the end, the bark, in doses suited to the age ; with good broths, jellies and wine, are the proper remedies. The parts should be washed, and likewise injected with muriatic acid in chamomile, or sage tea ; and afterwards dressed with the acid mixed with the honey of roses, and over all, a carrot-poultice. The child should in the mean time be gently purged with magnesia, or rhubarb, to carry down the putrid matters it may have swallowed. But to regulate these things, the assistance of some medical person will be required.

INDURATION *of the* BREASTS.

IT would be improper to pass over the slightest affection that has on any occasion exceedingly alarmed the parent, and sometimes perplexed medical men. Of this kind are affections of the breasts in females, previous to, or about the time of their beginning to enlarge. At this period, they sometimes become very painful ; and upon examination a hardness and swelling are discovered, and in some instances, sharp points may be felt, which are very painful when pressed. The hardness is seated deep, around and behind the nipple, and is sometimes loose, at others somewhat fixed, and attended with severe lancinating pains, which have given rise to disagreeable suspicions in regard to the probable nature of the complaint ; and would, indeed, at a more advanced age, claim a serious attention. When happening in families addicted to scro-

fula, that disorder is naturally suspected, and sometimes a morbid schirrhous has been feared. In some instances, only one of the breasts is affected, and after some months, the other ; or sometimes both nearly at the same time.

A VARIETY of alterative medicines, assisted by external applications, have been administered in different instances, and continued for several months. These have sometimes taken away the pain, reduced the tumour, and diminished the hardness ; but have, in no instance, entirely removed the complaint. Yet no evil consequence, in any instance under my eye has ever ensued, in patients at the abovementioned age ; nor have I heard of any from other practitioners, though it has been seriously apprehended.

The result of the whole has shewn, that the remote cause of the complaint has originated in an irritability of habit, in connexion with that distention of the parts, which at a certain age, nature always promotes ; and accordingly, it has been said, is found taking place at the time, or some months after the pain and hardness have been noticed.

The design of this chapter being to hold forth encouragement to parents, from the probable harmless nature of the complaint, it were needless to point out the means, that on different occasions, have been, sometimes unnecessarily, employed. I shall remark only, that keeping the body open and cool, together with every other attention to the general health, must in every instance be proper ; and should the pain be very great, a bread and milk, or *Goulard* poultice, may be applied.

ABSCESS in the LOWER-BELLY.

CHILDREN though less liable to this disorder than adult persons, are sometimes attacked by it at an early

age. It commonly arises from falls, or blows received on the part, or from lying on the grass, and other similar occasions of a cold in the bowels. It is always attended, and oftentimes preceded by bowel complaints, and sometimes severe ones. In either case, there is always a pretty early appearance of tumour near, or upon the share-bone accompanied with great tenderness and pain, especially upon pressure.

THE intentions of CURE are directed to the pain, fever, and state of the bowels. To these ends, a cooling plan is to be pursued, in order, if possible, to prevent suppuration, or gathering. Therefore, soft opening medicines are required, such as castor-oil, infusion of senna, joined with oil of almonds and manna, and such like ; with frequent clysters, and afterwards opiates, and saline draughts, as the degree of pain and fever may demand. The part affected should be fomented externally with a decoction of white-poppy heads ; leeches should be applied once or more, and afterwards a blister, if no relief be obtained, and the external tumour be not in the mean time increased. But if the parts become more swollen, a large bread and milk poultice should be applied, and changed two or three times every twenty-four hours ; and the matter let out as soon as may be. The suppuration being underneath the muscles, there will not be much discolouration of the skin, as is the case when matter is formed in the cellular membrane, or in the fat, above the flesh, or muscles. Such a change therefore, must not be waited for ; but an opening made as soon as any fluctuation can be perceived, lest the matter should make its way into the cavity of the belly, or produce sloughs and a foul ulcer. After the matter is let out, no other application is usually required than the same kind of soft poultice. The bow-

els must likewise be kept open by the gentle laxatives before mentioned, and the diet be very light and of easy digestion.

The Psoas, or LUMBAR ABSCESS.

FREQUENTLY as this disorder takes place in adults, it is as often met with in younger subjects, and even such as are only four or five years of age; and must therefore be ranked among the diseases of childhood.

It is a true chronic, or slow inflammation, and like the last-mentioned complaint, is often occasioned by bruises, strains, or lying on damp ground; and is not uncommonly connected with a scrofulous taint of the habit. The inflammatory symptoms being rarely severe, matter is formed slowly, and many months elapse before it can be felt externally; which sometimes points high up about the loins, hip, or groin, and at others, above the middle of the thigh on the inner side: in the most benign, the abscess frequently bursts in the groin. It is, in any case, a very dreadful disease, and is noticed here only for the sake of warning parents of the danger of so insidious a complaint, pointing out its first symptoms, and just marking the outlines of a practice which has proved the oftenest successful; the very design of this work admitting only of a brief statement of *surgical* cases.

A slight lameness and shortening of one of the legs, is, usually, the first change that is noticed. In a little time, the thigh is observed to be bent forward and upwards, which gives an appearance of depression to the muscles of the hip. But its most characteristic mark, in its early stage, is a sensation of weakness in the loins, with a tenderness about that part, manifest upon a careful examination.

THE first indication is to prevent maturation, if possible, upon the approach of these first symptoms, and before those of a hectic nature supervene ; but unfortunately, they are too often over-looked, or mistaken in the beginning.

With a view to a resolution of the inflammation, recourse should be had to bleeding by leeches, and cupping ; by blisters, issues and setons ; by emetics ; purging with calomel ; by the warm-bath, a supine posture, and low diet ; and sometimes, a caustic, or quicklime mixed with honey, applied upon the loins, near the back-bone ; but above all, by electricity : a stimulus, which in all affections of the joints, and deep seated inflammations, previous to the formation of matter, is, perhaps, the most successful.

Should these means fail, or advice be sought for too late to expect any thing from them ; of no less consequence is the treatment after the matter is formed ; which should be evacuated, by an artificial opening, as early as possible. If the abscess be large, instead of making a large opening, in order to afford a free vent to the matter, as was formerly practised, the aperture should, I think, in every case be small, that the abscess may not be emptied suddenly. The opening may, therefore, be made by a seton, preferably to a lancet ; unless it be done in the manner lately recommended by Mr. ABERNETHY, which in very large collections, I am satisfied, is an important improvement, and is likely to render this disease, for ages usually fatal, far less untractable. The principal circumstance in this plan, is the making a small opening in such a manner and oblique direction, as to be capable of being closed again after having given vent to a part of the present collection of matter ; and repeating the little operation at such intervals, and as often as shall be necessary.

Since I have adopted this plan, and with considerable success, I have learned from a more recent publication of Mr. ABERNETHY's, that he is now of opinion, that the whole of the matter may be evacuated at the first opening, and is therefore not anxious about the obliquity of the aperture. He closes it, however, carefully, and assists its healing; making a fresh puncture as often as the abscess shall fill to a certain degree.

This sentiment is submitted upon Mr. ABERNETHY's authority: for my own part, the only case I have seen since my former edition, in which the *whole* of the matter was evacuated, did not succeed.

Opium should likewise be administered, at regular intervals, and in doses suited to the occasion; as useful in mitigating the pain and irritability of the abscess, and in consequence of the hectic fever. The great benefit likewise derived from occasional emetics and electricity, encourages the hope, that many of these abscesses may be dispersed without any permanent exposure of their cavity; and that thus the patient may escape the sufferings and hazard to which an operation necessarily exposes him.

When the abscess has been some time opened, the diet should be changed for one more cordial and nourishing; and the bark, steel, or vitriol be administered, and the patient enjoy a pure air, and take such gentle exercise as his situation will admit of without an increase of pain.

ABSCESS *of the* HIP-JOINT.

THIS is an equally dangerous disease with the above, and differing little, but in the precise seat of it. The swelling and pain are here, indeed, more circumscribed; and the abscess always gives way near the region of the joint. The preceding symptoms, however, much re-

semble those above mentioned. But the equivocal nature of the first appearances, and the difficulty of ascertaining the probable degree of subsequent injury, are such as would not in detail at all profit the reader.

I shall observe, however, that a degree of lameness is frequently the first thing noticed; and that a short time afterwards, both the thigh and the calf of the leg become sensibly lessened. The patient also doth not stand equally on both legs, and the affected one projects outwards from the body; and in the end, the thigh becomes shortened. It is generally attended with a severe pain in the knee; and very early, an uneasiness in moving the head of the thigh bone in its socket.

This disease occurs from infancy to manhood, and often derives its origin from trifling accidents. It is mistaken for rheumatism and sciatica in adults, and in children, for indolence, accidents, scrofula, and worms; whence an erroneous practice is frequently adopted.

ON the head of treatment, I shall only observe, that in a view to prevent the formation of matter, which is the first intention; the means can differ but little from those prescribed for the foregoing complaint; among which are issues and setons, which should be applied in the manner that will be directed for the palsy of the lower extremities. Should an abscess, nevertheless, be formed, its after treatment must vary considerably according to the degree of injury of the joint, and adjacent parts. Nothing, however, will contribute more to the cure, than long and strict rest of the limb.

ABSCESS under the FASCIA of the THIGH.

THE nature of this deposit is so much of a kind with the two preceding ones, as well as so much less dan-

gerous, that it would be needless to do much more than mention it.

The seat of the tumour is in the forepart and outside of the thigh, and the matter lies deep, on the surface, or in the substance of the large muscles.

SOME surgeons are of opinion that the whole of the matter should be evacuated, and by a larger opening than for the psoas, or lumbar-abscess. I have, however, seen the method which I have noticed as successful in the former, equally so in this abscess; and from the result in one very bad case, I am disposed to think, there may be considerable advantages in closing the aperture, and making fresh punctures as the matter shall collect.

WHITE SWELLING *of the* JOINTS.

I SHALL be equally brief also on this article, the disease being well known by every surgeon, and entirely above the management of parents; my intention in naming it being only to afford them a general idea of it, and to mention from experience a few remedies, that have been found successful, in young subjects, if had recourse to in good time, and before any matter has been formed.

By way of description, it needs only to be said, that its very name will serve to distinguish it from every inflammatory tumour of the joints, which succeed in a short time to some injury they had received; and are less dangerous, generally, in proportion as the swelling and redness take place early after the accident has happened. On the other hand, in the disease under consideration, the tumour remains pale; is uniformly over the whole joint; and is preceded by long and acute pain; which is the great indication of mischief for some time before any change of figure is observed in the part.

Proper remedies are, the repeated application of eight or more leeches, and afterwards small blisters to the joint; gentle frictions of the part; two or three vomits a week, with entire rest of the limb; and in the end, sea-bathing, especially if the patient be of a scrofulous habit. If poultices be thought proper, one made of boiled turnips, and a bit of hogs-lard, has been found preferable to any other. In a few instances that I have known, electricity has had an immediate, and surprisingly good effect, even where the joint has been considerably enlarged, the pain very great, and the child incapable of straightening the limb.

PALSY *of the* LOWER EXTREMITIES, *with* CURVATURE
of the BACK-BONE.

THIS complaint has been of late years so thoroughly announced by writers, and unfortunately taken place in so many families, that it must be unnecessary here to enter into a minute detail of it. It will be proper, however, carefully to distinguish it from the simple curvature of the back, in which a greater number of joints is concerned, and the legs are not peculiarly affected; as well as from a complaint presently to be noticed, under the name of *debility* of the *lower extremities*, in which there is no manifest change of figure in the back-bone.

The Palsy of the lower extremities is certainly confined to no age, and being at first very frequently mistaken in young children for the trifling effect of some fall or strain, is entitled to peculiar notice in this work, that they may be properly distinguished. I have never met with it, indeed, where it has not been preceded by some fall or violent exertion, though such supposed accidents are seldom much noticed previous to the debility taking place; and it

is, indeed, probable, there may be some predisposing cause, without which no common strain would induce so much mischief in a part continually exposed to accidents.

The Curvature is generally in the neck or back, though sometimes in the upper part of the loins, and varies in extent and degree according to the number of joints that may be affected. The first symptom noticed by children of an age capable of expressing their feelings, is an increased sensibility, and irregular twitchings in the muscles of the thighs. This is succeeded by a dislike to motion, especially to moving briskly; the patient on such occasions finding himself likely to fall, his legs getting entangled through their weaknees, and a disposition to cross each other, in his attempts to step forward. Soon after this, he perceives himself unable to stand upright long together, and that the legs and thighs have lost much of their natural sensibility. Matters seldom continue long in this state, and the weakness increasing, patients lose more and more the use of both the lower extremities, till some are unable to move them at all even in bed; and these advances of the disease are said to be more rapid in adults than in infants. In the latter, I have particularly remarked a rigidity of the ankles, by which the toes are pointed downwards, so that the heels cannot be brought to touch the ground.

A CURE is more frequently effected, I think, than some practitioners have imagined, if it be but attempted in time. The means, indeed, are few, the chief remedy consisting in a large issue or seton placed on each side the curve, at such a distance as may prevent their bursting into one. Where the curvature comprehends three or more joints, the seton may be preferable to an issue; but if the latter be on any account elected, I should advise its being made

by the knife rather than a caustic ; both as being less painful, and for the sake of the consequent inflammation before there has been time for suppuration to take place. Some practitioners, it is right to notice, have thought differently ; but the good effects of this previous inflammation were very manifest, in a late instance, in an infant only ten months old : for a very sensible relief was afforded as soon as the inflammation took place, and before any suppuration appeared ; and though the child had been some months a cripple, with loss of health and appetite, unable to support its head, and the breast-bone very much distorted ; the relief was so great in one week after the incisions were made, as left no room to doubt of a perfect recovery ; which accordingly took place a short time afterwards, without any deformity remaining.

The issues should be kept open till the patient perfectly recovers the use of his legs, or even a while longer ; at least one issue, which ought not to be dried up till the patient can walk firmly alone, and shall have recovered all the height which he may have lost in consequence of that stooping which the disorder had induced.

In addition to the use of these means those of cold-bathing, frictions, the bark, and such like strengthening remedies, have been recommended ; but I have myself had no experience of them ; nor does it seem very probable, that such auxiliaries are likely to avail much when the issues shall fail. After the recovery, however, if the patient be of a scrofulous habit, sea-bathing is peculiarly indicated.

A NEW remedy, however, has lately been recommended upon good authority, and is said to have hastened a cure in some instances, and insured it in others, after the issues alone had been manifestly insufficient. This consists only in taking off the weight of the superiour parts, by the

stay made by *Jones* or *Bowley*; a mean perfectly congenial with the nature of the disease, and therefore well entitled to trial, whenever the cure may be at a stand.

DEBILITY *of the* LOWER EXTREMITIES.

THE infirmity intended here is not noticed by any medical writer within the compass of my reading, or is not so described as to ascertain the disease. It is not a common disorder any where, I believe, and seems to occur seldom in *London* than in other parts of this kingdom. Nor am I enough acquainted with it to be fully satisfied, either in regard to the true cause, or seat of the disease, either from my own observation, or that of others, with whom I have corresponded, except in the instance of teething, or of foul bowels; and then the usual remedies should be employed, and will always effect a cure.

But the complaint at other times appears without such connexion, and then seems to arise from debility, and usually attacks children previously reduced by fever; seldom those under one, or more than four or five years old. It is a chronical, or lingering complaint, and not attended with pain, fever, or any manifest disease; so that the first thing observed is a debility of the lower extremities, which gradually become more infirm, and after a few weeks are unable to support the body. If there be no signs of worms, nor other foulness of the bowels, mercurial purges have never been of any use; neither has the bark, nor hot, nor cold-bathing. Blisters, or caustics on the bottom of the back, and hip-joint, and volatile and stimulating applications to the legs and thighs, have been chiefly depended upon; though there is no appearance of any enlargement of any of the joints of the back, nor of suppuration in the

external parts, and therefore is not of the same kind with the last mentioned complaint, the lumbar-abscess, not that of the hip-joint.

WHEN only one of the lower extremities has been affected, the above means, in two instances out of five or six, entirely removed the complaint : but when both have been paralytic, nothing has seemed to do any good but irons to the legs, for the support of the limbs, and enabling the patient to walk. At the end of four or five years, some have by this means got better, in proportion as they have acquired general strength : but even some of these, where the debility has not been entirely removed, have been disposed to fall afterwards into consumption of the lungs. On this account it may be suspected, that the complaint is sometimes owing to scrofula.

I have seen a similar debility seize grown people, especially women, after a very long illness, and has continued a year or more ; during which time they were utterly incapable of walking without the help of crutches.

These cases, however, have always been attended with great pain in the commencement of the complaint, though without tumour of the limbs, and have been benefited by the external use of the waters at *Bath*.

DISCOLOURATION, *accompanied with* DEBILITY of the
LIMBS.

ATTENDANT upon weakness of the lower extremities, there is sometimes a discolouration equally distinct from those already mentioned,* and another yet to be noticed, arising from some disease, or natural ill-struc-

* See Vol. I.

ture of the heart. The disorder under consideration takes place at a more advanced age, and seemingly in consequence of previous bad health. I know of no writer, indeed, who has noticed this complaint any more than the debility mentioned in the former chapter ; nor have I met with this either often enough to be distinctly acquainted with its nature, nor, as yet, fairly seen the result.

CHILDREN so affected have gone off their feet, as it is called, or dragged them only very feebly, after having been able to walk stoutly for some time. They have become in every respect weak and languid ; their head has grown large, and their limbs become emaciated, but do not feel cold to the touch, though of a deep leaden-blue colour from the fingers and toes to the elbows and knees ; with the face almost equally discoloured, and like that of adults in a fit of asthma. A fall, or such like accident, has sometimes been suspected as the cause of these symptoms, but unsupported by any appearance on the backbone, or other parts.

IN a view to its CURE, the bark and cordials have been made trial of, but without any advantage ; and cold-bathing has seemed to be prejudicial. The application of leeches to the livid parts, friction, spirituous and volatile embrocations, and blisters ; repeated electricity ; tepid sea-bathing ; steel, exercise, and a generous diet, are the means I have hitherto directed, after purging with calomel ; but as yet, I have said, I am not able to state their certain effects ; the disorder being chronical (or lingering) and most of the subjects I have been consulted for, residing out of town.

In several instances, a discolouration of this kind, which has appeared only at times, and recurred again during

many months, attended with cough and occasional difficulty of breathing ; has disappeared totally as children have acquired general strength and good health ; without any very manifest advantage from any means that have been used.

CURVATURE of the BONES from WEAKNESS.

CROOKEDNESS of the bones, particularly those of the lower extremities, has been mentioned as a common consequence of rickets, and may claim a transitory notice.

The principal inquiry in the treatment of deformities of this kind, respects the use of irons for the support of the limbs, whenever the distortion happens to be considerable. The propriety of this assistance, has, indeed, been doubted by some practitioners, as well as their unpleasant appearance objected to by parents ; who have therefore been inclined rather to trust only to cold-bathing. Friend, however, as I am to the latter, I may venture to say from experience, that it is likely to be prejudicial at the time it is often had recourse to ; for by strengthening the system, it rather serves to confirm the crookedness which the bones have already contracted. It is an advantage, on the other hand, that the bones remain soft and yielding as long as the curvature is considerable ; if so be the pressure of the superiour parts be at the same time duly counteracted. To support the limbs, therefore, with irons, as long as the softness of the bones disposes them to yield under the weight of the body, is certainly a rational intention, and has been very beneficial in numberless instances. This end obtained, the bones being still lengthening as the child grows up, they naturally incline to become straight ; and at this time the cold-bath and other strengthening

remedies are properly indicated, and will co-operate to the cure of the complaint. The only care required, is, that the irons may be as light as possible, and be properly adapted, and that they be lengthened as often as may be necessary. It is, possibly, for want of due attention to this last particular, that irons have in some instances been really found to do harm ; the reason for which must be obvious to every one.

WHEN a curvature takes place in the back, (without any disease of its joints or cartilages, and therefore not accompanied with debility of the extremities) the like method should be taken. Proper instruments to support the head and upper parts of the body have been contrived by different artists, but those made by JONES or BOWLEY appear to be the best. There is, indeed, a slight disposition to this curvature, that does not require so inconvenient an instrument ; and for which the stay made by LAWRIE and HOLMES, *Bartholomew-Close*, may therefore be preferable.

But if the injury extend to the hip and contiguous bones, it will not be manifest at the time ; and when discovered, can be benefited only by the cold-bath, and other general remedies. If this distortion should be considerable, it may, indeed, become a source of manifold evils in females, as will be noticed in another place.

Should the bones of the arm be curved, either by accident or disease, in this soft state ; rollers and pasteboard-splints properly applied, will be sufficient to support, and restore them to their natural form.

WHITLOW.

THIS complaint occurs in very different degrees, but is introduced here principally in view to the most be-

nign ; many young people being very subject to a mild species of this complaint, which being perfectly superficial, is not improperly termed the cutaneous, or skin-whitlow, and will attack the ends of the fingers, several times in a year, without any previous injury of the part. The subject is, therefore, noticed chiefly with the design of recommending a preventive which I have frequently seen successful. This consists only in bathing the fingers, several times a day, in the following mixture, the moment that a sense of any preternatural heat, or pain shall be felt.

Take of Camphorated spirit, four ounces,
Water of acetated Litharge, two drachms,
Tincture of Opium, half an ounce.
Mix them.

It may have its use, however, just to observe, that in the malignant, or deep seated whitlow, the best method is to make an early opening down to the bone, which will occasion the patient much less pain, than allowing the matter, gradually, to make its own way to the surface ; which likewise, from the length of time required, is attended with more mischief to the parts.

I shall only add, that in the commencement of the tumour and pain, nothing can be more improper than the recourse so commonly had to a bread and milk poultice ; instead of which, whenever poultices may be required, those made with the water of acetated litharge are abundantly preferable, and should be applied only very moderately warm.

BOILS.

THE common Boil only is intended here ; and is noticed from its frequency in young people towards the

time of puberty, who are sometimes vexed with a succession of them. They are more commonly seated on the thighs, the bottom, and contiguous parts; are usually small, exceedingly painful; and of a deep red colour a little time before they break; but become perfectly easy immediately afterwards. Though oftentimes hurtful in older subjects, they are, however, justly accounted salutary in others, and do harm only when repelled or hastily dried up. If a poultice of bread and milk, therefore, be applied from the first, (if the boil be in a convenient part, otherwise a gum-plaster) and a bit of yellow, or black basilicon put every day into the hollow, as soon as the boil breaks, it will be properly digested, and the core, as it is called, be brought out. It is sometimes for the want of this, that another boil forms in the neighbouring parts, or the child is teased with sore eyes, or some humour, as it is termed, on the skin.

Two or three doses of purging physic may be taken, at proper intervals, after the boil is healed.

CHILBLAINS.

THIS is a complaint so well known, that it can need no description. It is generally owing to the circulation of the blood in the minute vessels of the extremities being checked, by a child having been long exposed to cold or wet, and afterwards running to the fire instead of recovering the natural heat by general exercise, and friction of the parts affected. If the injury be exceedingly great, as it sometimes is when a person has lain for several hours in the snow, the circulation cannot always be restored, and some parts actually mortify. To prevent this, if possible, instead of bringing the person near a fire, he

should be immediately stripped, and well rubbed all over, especially the parts most affected, with snow, and afterwards with salt and water, and be then put into bed. If neither snow, nor ice be to be had, cold water should be made use of, or flannel sprinkled with spirit. If the parts be turned black, which they often are, when they are what is called frost-bitten ; the patient, especially if a young child, should be confined to the bed, as long as the weather is severe and the parts continue discoloured. But my intention is to treat chiefly of slighter attacks ; on the first appearance of which, known by the heat, itching, redness, and swelling of the heels, toes, or fingers ; no bad remedy is that of country people, who apply warm wood-ashes between cloths, or rub the parts with mustard and brandy ; which if it be done in time will frequently both prevent their breaking into sores, and entirely remove the complaint. For the like purpose, rubbing the parts with a soft brush, or soaking them in warm water in which a hot poker has been two or three times quenched, and afterwards rubbing them with soft soap, or salt and onions are good remedies for families residing in the country. But if there be an apothecary near at hand, the parts may be embrocated with the soap-liniment of the shops, or with camphorated spirit, to two ounces of which may be added a tea-spoonful of the water of acetated litharge. But I have for some years experienced the good effects of far simpler means than any of these, and which I have hitherto never found equalled by any of the warmer remedies alone. It may, indeed, be used together with them ; and is nothing more than the cerate of spermaceti spread on a large piece of thick lint ; or the soap-plaster upon cloth ; to be applied as soon as the extremities begin to itch, or become painful : or if

this should not very soon be of use, both embrocating, and covering the parts with compresses of flannel wrung out of the acetated water of ammonia, which should be continually preserved moist.

SOME children are disposed to have chilblains every winter ; as a preservative against which, if it be the hands that are liable to be affected, warm leather gloves should be worn, (avoiding woollen, which in these cases is unfriendly to the skin ;) and above all, wearing for a few hours in the day or night, and especially when abroad in the cold, oiled-silk gloves, which is one of the best preventives both of chilblains and of chopped hands, that has been hitherto known. But if the feet are usually the affected parts, the heels only may be covered by a piece of washing-leather, and over this a piece of oiled-silk, secured round the insteps, and worn day and night during the cold months ; and should be taken off only for the purpose of washing them, and rubbing the parts with the brush or liniments as mentioned above.

WHEN the swellings are broken, it is common to dress the sores only with a little cerate, and to wait for the return of warm weather, when they usually heal of themselves ; but by this means, they often remain bad through all the winter, and when large, are sometimes not well till the summer is very far advanced ; and I have even seen them remain very bad both in children and grown people, at the end of *September*.

After having attended great numbers in this complaint, I am satisfied that this kind of sore requires applications somewhat more invigorating, being a species of mortification ; and though it will not always endure very warm digestives like many other ulcers, yet when the chilblains are pretty large, a portion of some digestive joined with

the cerate, is very friendly to them. And I have known some sores, though very small, which had remained in a very obstinate and tedious state long after the breaking up of a hard frost, whilst they had been dressed only with TURNER'S cerate, begin to heal immediately upon adding a small portion of some warm digestive, and applying a flannel roller, without any other alteration in the plan. But if they are spread to any considerable size, nothing contributes so much to their healing, as touching the sores every day with bracing and invigorating lotions, particularly a diluted solution of the tincture of muriated iron, or a diluted tincture of myrrh ; which in a very few days will produce kindly granulations in these, and other cold sores, though of long standing.

When the parts are much swollen, and the sores been long foul, it will be often necessary in severe weather, to make use of poultices, of which those made of rye-meal and the compound water of acetated litharge are more active, and therefore preferable to bread and milk : the latter however, if a little brandy be added to it, answers very well in many cases. If these are applied over the above dressing of cerate and digestive, and changed twice a day, the sores will heal in much less time than by any of the common applications I have seen used ; especially if the parts surrounding the sore be well rubbed with camphorated spirit. If children be not very young, purging them with a little calomel twice a week, will often expedite the healing of the sores : in the worst cases, a decoction of the bark, as well as cordials, and a generous diet are required.

I have now for many years had strong proofs of the good effects of electricity in chilblains, both as a remedy and a preventive, especially in elderly people, many of whom are afflicted with them every winter.

BURNS and SCALDS.

BURNS are mentioned by some old writers ; and though a misfortune by no means confined to young people, they too often fall to the lot of infants, through the carelessness of their attendants : and for the want of being properly treated at the instant, children often suffer exceedingly, when a fit application would have rendered the injury trifling.

WHEN such an accident happens, the nearest astringent at hand should be made use of, such as brandy, or other spirit, oil of turpentine, ink, wine, or even cold water, till something more proper can be procured ; into which the injured part should be plunged, or be covered with pieces of cloth dipped in such liquors ; which will prevent the blistering of the part : or in the momentary want of any of these, holding the injured part before a moderate fire ; carefully avoiding the use of olive-oil, too frequently had recourse to. As soon as it is possible to send to an apothecary, the following should be procured, and used in like manner.

Lime-water, a pint ; brandy, two ounces ; water of acetated litharge, half an ounce.—Where ice can be conveniently applied, and renewed day and night, it will be found the very best early remedy in every bad case ; or in the want of this, keeping the burned parts constantly wetted with cold water.

If the injury has been too long received to admit of much relief by these means, and deep sloughs are actually formed, a very proper dressing may be made of equal parts of TURNER'S cerate, and green ointment of elder ; diminishing the proportion of the latter as the sloughs shall be thrown off, and the sores become disposed to heal. But

should the injured surface be large, or the pain, occasioned by removing the dressings, be very great, it will be sufficient to cover the parts with pieces of linen dipped in cold-drawn linseed-oil, which should be moistened every day, and suffered to adhere till the sores are in a state to admit of being dressed in a common way.

A STRONG solution of soap in water has long been in use with artificers employed in any business exposing to very bad scalds ; and is a very excellent remedy—About three quarters of an ounce of soft soap is a proper quantity for a pint of water. But not only does soap take some time in dissolving, but requiring a certain proportion of boiling water, the lotion cannot be made cool enough for immediate use by the addition of the proper quantity of cold water. A remedy therefore, more convenient, and perhaps more efficacious, which if not always in the house, can in every large town be speedily procured, may be made of olive-oil, cold water and soap-leys. Twelve table-spoonsfull of oil to ten of water, with two tea-spoonsfull of the ley will make a pint.—This quantity may be sufficient for a burn on the hand or foot ; which is to be immersed, and kept about half an hour in the liquor, which will remove the injury if had recourse to immediately ; but must be repeated, as the pain may require, if the scald or burn be of some standing. Could a person scalded all over, be instantly put up to the chin in a cold-bath of this kind, and the head, at the same time, be frequently immersed, or well washed with the liquor, I believe very little injury would ensue. Another good domestic remedy, is a strong brine, made by placing sliced potatoes and common salt in alternate layers in a pan, allowing them to remain until the whole of the salt is liquified ; which must be then drained off, and preserved in bottles or jars, properly labelled, rea-

dy for immediate use ; as may likewise the afore-mentioned lotion.—Whatever sores may be formed, should be treated afterwards according to the foregoing directions.

LUXATIONS *and* FRACTURES.

INFANTS are not only liable to these misfortunes by a fall from the lap, but the bones, or joints, may sometimes be unavoidably injured in the birth. There is in this case, seldom any luxation, I believe, but of the shoulder ; which is not difficult to be reduced, and requires little afterwards, but that the limb be kept perfectly quiet.

It is very common for nurses, especially during the month, to support the lower-jaw of an infant whenever it happens to yawn, in the apprehension that the jaw might, otherwise, be dislocated. This practice is, at least, an evidence of the nurse's attention, and can do no harm ; though I have, indeed, never known the accident happen. Should it, however, take place, either at this age, or in older children through some violence, it will occasion a very awkward appearance, and prove very distressing to the child ; who will be disabled from taking any nourishment till the luxation be reduced. Nothing more, however, is required to this end, than to place the thumb of each hand in the back of the mouth, and the fingers on the outside, under the jaw, so as to depress, and at the same time bring it a little forward, to disengage the head, or back part of the bone, and then force the jaw suddenly back. Should any intelligent parent or midwife be inclined to make this attempt and not presently succeed, it may be better to wait the coming of a surgeon, though from a

distance, than to risk breaking the jaw by forcibly repeating the experiment, in the hope of reducing it.

FRACTURES, indeed, are not quite so easily managed as luxations, and probably happen more frequently. The bones are yet but little more than gristle, and if strained beyond a certain degree, are easily bent, or even broken. The former is very readily restored, but I shall be more particular on the latter, that parents at a distance from the best helps, may be able to form some just idea of the merits of such as they can procure. It is with this view, it has been observed,* (and it is hoped no one will feel himself offended by it,) that I have said more in many parts of the work, on some matters above the reach of many of my readers, than I should otherwise have done.

Fractures in the birth are usually of the collar-bone, the arm, or the thigh; the treatment of the two former of which, will include all that is necessary to be observed of such as may happen in other parts.

The first, however, requires very little attention, as it will be necessary only to draw the shoulders back, confining them in that posture, by two or three pins in the clothes; and to apply a piece of the adhesive, or the soap-plaster, spread on leather, upon the rising end of the bone, and a larger piece over the first, so as to cover both points of the bone.

A fracture of the arm demands a little more attention, but will always end perfectly well. The difficulty consists in keeping the broken ends of the bones apposed to each other, without rolling up the arm so tight as to occasion pain, or much swelling of the hand; which in a new-born infant, a very small pressure will effect. I have found no method so well adapted as the following, which allowing of a

* *Introduction to this volume.*

little tumour about the fractured part, without the necessity of loosening the roller, preserves the ends of the bones in due contact, without drawing the roller so tight as to prevent the free return of blood from the inferior parts of the limb.

To this end, three little splints, about half an inch in width, and an inch and half long, may be made of fine linen cloth, five or six times rolled together, to the thickness of common pasteboard; and being soaked in a mixture of flour and white of egg, should be placed in the usual manner, along the fractured ends of the bone. Being applied wet, they will accommodate themselves exactly to the figure of the limb, and when become dry, will be sufficiently strong to support the bones. They should be applied immediately on the skin, without the intervention of a roller; by which means, when the parts swell, which they should always do a little, there will be space enough between them to allow for it, notwithstanding the pressure from the roller; which should be applied over them. This ought to be of very fine flannel, and should not be drawn near so tight as for adults; nor will there be occasion for it, as the chief dependence ought to be on fastening the arm down close to the side, by strong pins fixed into the little gown, in the manner the surgeon may best contrive at the time. The gown, therefore, ought not to be changed, nor the arm moved, but in his presence: and if the hand be not inflamed, nor very much swelled, and the child continues easy, the part will not need to be opened under eight or ten days. Till this time, the same gown should be worn, and be preserved clean by such coverings as may easily be removed. The speedy union of the bones will depend upon a strict attention to keeping the limb as still as possible; and if it be so preserved, the ac-

cident will afford very little trouble after the first ten or twelve days: and at the month's end, the child will move that arm nearly as well as the other.

On CUTTING the TONGUE.

THE directions on this head, as well as the notice taken of many of the following little disorders; proceed rather from a desire that nothing on the subject of children's complaints should be omitted, than from their real importance. Some of them, indeed, have been entirely overlooked by preceding writers; and though they will seldom require much attention, it may sometimes be of advantage to know what has been serviceable in similar cases.—The instance under consideration, however, is too trifling a matter to dwell upon. And, indeed, the little operation, performed in order to lengthen the tongue, is very frequently called for where there is no absolute occasion for it, the confinement being seldom so considerable as to make it really necessary to divide the bridle, or string, that adheres to the under part of the tongue. The child will suffer so very little, however, in the operation, that when it is carefully done, it will be attended with no inconvenience; and if it can afford the mother any satisfaction, it will be very proper to comply with her request when the string may be found longer than is necessary. I shall therefore only observe, that some little care and steadiness are required, or the veins under the tongue may be wounded, and in consequence an infant may lose its life. To avoid this danger, instead of making use of scissars, the bridle may be divided by a small curved bistoury; the back part of which will sufficiently press down the veins, so as to be entirely out of the way of being injured. These

cautions have been judged by some people to be very trifling ; but besides that infants have actually bled to death, the following equally fatal accident has arisen from cutting too deep, which I shall therefore notice in this place, as well as describe an instrument contrived for suppressing the bleeding.

SUFFOCATION *from* SWALLOWING *the* POINT *of the*
TONGUE ; *and* BLEEDING.

THE occasion of this accident, it has been said, is cutting too deep in dividing the bridle : I have here to notice its symptoms and remedy. The former are those usually attending strangulation, and come on suddenly, and without any probable cause but that of the tongue having been cut ; but to which they are seldom attributed by those who are strangers to the complaint. The infant appears greatly agitated ; the face turns black ; and unless these symptoms soon disappear, the child goes off in a convulsion. But if they are presently removed, the infant is as suddenly well ; but they generally return again, and have in several instances proved fatal.

THE remedy consists in nothing more than bringing the tongue into its proper place, and if the infant be suckled, putting it immediately to the breast, which will give the tongue a natural direction. Should the child be brought up by hand, the tongue should be watched for some time, at least till the bleeding shall be stopped ; the complaint taking place only in consequence of that being considerable, so as to become an inducement to the infant to continue sucking at the part.

WHEN these veins are actually wounded, the danger, it has been said, is considerable ; but the means of cure are

very simple. They consist only of a piece of ivory, in the form of a short fork ; the prongs of which should be so placed as to press against the apertures in the veins, and the other end against the inside of the lower jaw, and should therefore be broad and somewhat convex, that it may keep its place : but the whole must be adjusted by some medical hand.

BLEEDING *of the Nose.*

THIS complaint was hinted in the chapter on sneezing, and some account of it is met with amongst old writers ; I shall therefore bestow a few words upon it, though it is not often of much consequence, I believe, before the age of puberty.

If a child be feverish, or otherwise unwell, the bleeding is often a mere symptom arising from the complaint under which it labours, and will disappear upon that being properly treated. But a bleeding at the nose sometimes takes place in the healthiest children, the vessels of this part being weaker than those which are covered by the true skin, and often afford a salutary outlet, in case of fulness of blood, and therefore usually contract when the intention of nature is answered ; after which, a dose or two of cooling physic should be given. But it may be sometimes necessary to draw a little cold water up the nose, to which some vinegar may be added, and to compress the nostril from which the blood flows ; also to apply some thing cold to the upper part of the back, and confine the patient as much as may be to an upright posture. Should these little remedies fail, the head and hands may be bathed with cold vinegar and water, and the nostrils be stopped up with dossils of lint ; which upon urgent occasions must be dipped

in warmed oil of turpentine, or other styptic liquor, and must extend to the back parts opening into the throat : but this will require an hand accustomed to such operations. The last means will almost always succeed ; but if otherwise, some blood should be taken from the arm, if the pulse does not forbid ; the feet be immersed in warm water, or the hands in cold ; and the body kept open by manna, and cream of tartar ; and the patient should live for a long time pretty much upon whey, vegetables and milk ; at least, should not dine wholly upon animal food.—In the intermediate days of purging, the testaceous powders, and tincture of catechu may be taken ; and in some instances the bark will be proper.

BLEEDING *from the* NAVEL.

THE navel of new-born infants is liable to several disorders, some of which are of considerable importance ; but I speak in this chapter only of the slighter ones. Of these, one is an oozing of blood from the part, after an unkindly separation of the cord, and is owing to the shooting up of a soft fungus, or proud-flesh, which prevents the skin from covering the divided vessels in the manner it otherwise does. This rawness, however, is not always attended with bleeding, as will be noticed in the next chapter ; but when it is so, and has not been attended to, it may continue for several months, and in some instances, in such quantity as to prove alarming to the friends of the child, lest it should in the end be injurious to its health. The little vessel from whence the blood issues, lies always so deep that it cannot be secured by ligature. Nothing further, however, is necessary, than to

adapt a proper compress, and secure it by a sticking-plaster and bandage ; which should be continued for two or three weeks ; or it may be restrained merely by a small dossil of lint, and cross strips of sticking-plaster applied in the manner directed for ruptures at this part.

There is, indeed, another kind of bleeding of more importance, but this seems to be sympathetic, and is attendant upon infants who are in an ill state of health during the month ; and is, perhaps, a bad sign. It takes place where the navel-string has been apparently well healed ; but the skin afterwards gives way, and the bleeding is much more considerable than in the former. It requires, however, nothing more than the application of a little warmed oil of turpentine, or other common styptic, with proper compress and bandage. The bleeding not appearing, in the least, to be critical, or salutary, ought to be suppressed as soon as may be, and whatever complaint the infant may labour under, be treated according to its kind.

SORENESS, or *ULCERATION of the NAVEL.*

THE care of this part has been so uniformly submitted to nurses, that unless some very unusual complaint has appeared, medical men were formerly very seldom consulted. On this account, its disorders have rarely been mentioned by writers, nor probably have all the affections to which it is liable, been known to them.

THE separation of the cord is the work of nature, whose operations are usually performed in the best manner, and time. It may be here remarked, however, that in regard to the time there is considerable variety ; a complete separation in some instances taking place in five days, and

even earlier ; and in others, not till the fifteenth, or sixteenth. When so late, the cord is usually found to hang for some time only by a very small filament, or thread ; which having no life remaining, ought to be divided. For want of this, a source of irritation and discharge is kept up, which I have suspected being the cause of some of the little disorders of this part now to be noticed. In a late instance I met with of a long discharge from the navel, I afterwards learned that the cord had been in the above state for several days, and had not dropped off till the fifteenth.

THE separation of this part, however, is not often followed by much soreness or pain, though there is frequently a true ulcer of the part. The common applications of a bit of singed linen cloth, a toasted raisin, and dusting the part with hair-powder, or the powder of ceruse, are usually sufficient for the common soreness consequent upon the separation of the cord. In some instances, however, the discharge is very great, and the part continues to appear raw, and indisposed to heal, or dry up. In such cases, I have often found three or four small pieces of a soft cabbage leaf one of the best applications. They should be laid one over another, that they may be preserved moist and cool, and should be continued as long as the discharge shall be considerable.

A MORE troublesome case is that of the part becoming sore, often some weeks after it has appeared to be healed ; and as far as I have seen, (unless in some very bad cases presently to be noticed,) has taken place only where the skin of the belly has extended an unusual way on the cord ; occasioning likewise a disposition to a rupture at the navel, as will be noticed in a subsequent chapter. This soreness is likewise attended with much thin dis-

charge, which disappears and returns irregularly, together with a raw appearance of the part ; which is not many days in the same state. The bowels are in this case usually affected, and should therefore be carefully attended to, and proper remedies administered according to the nature and number of the stools ; the part being at the same time covered with cabbage leaves, or with a poultice of bread and milk, or of the compound water of acetated litharge, or a decoction of the bark, according as it may be more or less healed ; and the raw part touched, now and then, with the nitrated silver, blue vitriol, or powder of calamine-stone, as its appearance, and the quantity of discharge may suggest : but these distinctions will be beyond the parent's discrimination.

By one or other of these means, I have always found it get well, but sometimes not in less than five or six weeks, when it has usually dried up suddenly ; previous to which the infant has seldom thriven properly. In several recent instances, however, I have enclosed the raw part in a ligature ; and this method has usually removed the complaint in a couple of days ; and seems therefore to be always preferable where it can be effected.

BUT there is a much more alarming ulceration, which like the former, takes place some time after the part has been properly healed, and is, probably, always the consequence of some other illness, or a general debility of the infant. In such cases, the sore has been found to spread over a great part of the belly, and even to mortify. Here very little can be done, I believe ; all the instances but one, that I have known any thing of, having proved fatal, not so much, indeed, from the local affection, or tender age of the subject, as from the original cause of the gangrene.

Whatever is found proper in a similar state of parts on other occasions, should be made trial of, such as fomentations, poultices, and a liberal exhibition of the bark and cordials ; under the use of which, however, the infant rarely survives long enough to afford a due trial of their effects. They have, however, succeeded lately in one instance.

A case of this kind, but more mild, fell under my observation very lately ; in which, upon the separation of the cord, a foul sore, with great swelling and hardness took place, and was not healed till the end of the fifth week. Fomentations and poultices, however, with a daily exhibition of cordials, effected the cure, without recourse to the bark, though the infant was not free from danger till near the end of the month.

UNKINDLY SEPARATION *of the* NAVEL-STRING.

THE uncommonness of the appearance here intended may be offered as a reason for noticing it, as it can require but little if any medical assistance. I have only once seen such a case ; and being at a loss what turn it might take, it is imagined, the reader may not be displeased with this account of the probable result, in any future instances.

The case is hinted at under the article of *hepartomphalos*, which will presently be noticed ; the subject of which was born in the *British Lying-in* hospital ; where the navel-string was tied in the ordinary manner, about three inches from the child's body. But instead of separating close to it as usual, only the part enclosed by the ligature decayed ; the portion below it preserving its former appearance, except that it was a little shrunk or shortened :

some unusual vessel, it is probable, keeping up the life of the part. In this state it remained for some days before the nurse made mention of it to any one ; and as it afterwards appeared probable it would gradually shrink away, no particular directions were given ; but it was purposed in a few days, to tie the cord close to the belly, if that should not be rendered needless by its becoming dry, and dropping off in the usual manner.

When the child was near three weeks old, the cord appeared a little raw and moist, and the ligature was then determined upon ; but the mother being called to a place as wet-nurse to a great distance, left the hospital suddenly ; the remaining cord being still a living part, but only half an inch in length, and the child very healthy ; and having heard nothing of it since, it is presumed has continued so.

RUPTURES.

RUPTURES may take place in different parts, but they usually appear at the navel, or the groin. That of the navel is sometimes complicated with the ventral, (or belly-rupture) near to that part ; and is occasioned by the separation of the strait muscles, (so termed) the strong tendon, called *linea alba*, being there deficient ; for want of which, the parts are too weak to confine their contents ; but this rupture seldom extends far above or below the navel. The simple navel-rupture is a very common complaint, which if immediately attended to, is easily cured, perhaps merely by the use of the cold-bath : but if neglected, may prove troublesome as the child grows up ; especially to females. It will be sooner cured, however, if treated like the bleeding of this part, by adapting a pyr-

amidical compress, made of round pieces of good sticking-plaster, spread upon thin leather, with pieces of card placed between them ; or what is more easily prepared, and is adapted to poor people, a piece of bees-wax as broad as a shilling, and half an inch thick ; the upper part of it may be round, and the other flat, which should be placed on the navel. But if the child be a twelvemonth old, these remedies will then require a pretty tight bandage round the waist ; and such a compression, I have frequently observed nurses afraid of, who often loosen the bandage so much as to render it of very little use. On this account, I have for several years recommended Mr. BOWLEY's elastic bandage ; which if this rupture be complicated with the ventral, or belly-rupture, becomes the more necessary ; and sitting quite hollow on the sides, and making no kind of compression but on the part affected, and the opposite point of the back, perfectly answers the end, without the help of a surgeon, and generally in three or four months. A less expensive or unpleasant method, however, consists in bringing the parts together by means of three or four strips of sticking-plaster spread upon leather, applied star-wise, across the navel, which should be renewed, when they get loose ; and has been found to succeed very well in the simple navel-rupture, if had recourse to soon after the complaint is discovered.— It has been said, that startings of the navel more commonly happen to such infants, in whom the skin of the belly has extended further than is common upon the navel-string ; on which account, nurses ought to be particularly careful in such instances, and keep the part more than ordinarily confined.

RUPTURES at the groin are of more consequence, yet may be safely left without a bandage ; especially as the

cold-bath alone generally cures them when they happen to children before they go alone. In early infancy, there is likewise some difficulty in retaining the truss on the part, and it is continually liable to be wetted. If a rupture, however, should be very large, and the infant unusually fretful and crying, recourse may be had to a steel-truss ; to which it will be necessary to pay some attention, lest it slip out of its place, or the rupture fall down, and be bruised by the pad. After two years of age, indeed, when children begin to take more exercise, the use of the truss seems to be absolutely necessary, of which those made of steel by Mr. BOWLEY, are incomparably the best.—Should the cure of either kind of rupture proceed slowly, cold-bathing will assist it, as well as be proper, for some months, after leaving off the bandage or truss.

LASTLY, it may be prudent to drop a word or two on the strangulated, or confined rupture ; which is more apt to take place in the groin than in any other part, though, happily, it is not very common in children. It will be sufficient to repeat here the observation made in the chapter on vomiting ; that when any part of the bowel is strangulated, the stomach will frequently eject every thing that is put into it, and should, therefore, furnish a suspicion of such an accident, and lead to an immediate examination of the parts. Should the slightest appearances of tumour and heat be discovered, at the navel, or the groin, the assistance of a good surgeon should be immediately sought for. But if such help be at a great distance, a purging clyster with oil may in the mean time be thrown up ; and a proper dose of castor-oil, of senna-tea, or the bitter salt be immediately taken ; and a few drops of laudanum, suitable to the age of the child, be given

after its operation. When stools have been procured, a poultice of bread and milk, or of the acetated water of litharge may be applied to the part, only very moderately warm.

WATERY-RUPTURE.

THIS is a distention of the purse of a nature similar to the watery-rupture of adults, and when it falls to the share of infants, usually appears at the birth. It is frequently mistaken by midwives and nurses for a common rupture, who therefore advise a linen bandage to be applied in the ordinary manner. It is, however, easily distinguished from that complaint, by the tumour being transparent ; without pain ; and from not retiring upon pressure, nor being increased by the crying of the infant.

Though it has been thought always to appear at the birth, and that the tumour does not retire upon pressure, I have seen a few instances where it has been otherwise. In one, I had occasion to examine the parts very attentively at the birth, on account of a little mal-conformation of another kind, and neither then, nor the next morning saw any appearance of water ; nor was it discovered by the nurse or mother till six weeks afterwards, though the parts, for the reason abovementioned, were frequently examined. About this time I was sent for in haste, on account of what was thought a large rupture, which, however, by the mother's report, was before I got there considerably diminished. The part, nevertheless, contained, as I imagine near a table-spoonful of water, and was from this time distended in different degrees, as the water happened to retire, more or less, through the muscular ring (as it is called) above, which I apprehend must have been

preternaturally open; though no portion of the caul, nor bowel, ever descended. The complaint, however, disappeared in a few weeks, by only dashing the parts with cold water, three or four times a day.—This infant was a twin; and it is remarkable, that the other had likewise a watery-rupture, which was not discovered for three weeks after the former; but was much smaller, and got well by only the like gentle treatment.

This kind of rupture in infants, is a harmless complaint, and would probably always disappear of itself in the course of a few months; but may much sooner be dispersed by some astringent lotion. The water of acetated ammonia has succeeded with me perfectly well, and I have sometimes made use of compresses wetted in vinegar and water, with the addition of a little spirit, as the skin has been able to bear it. The smoke of burning gum-benjamin received upon flannel, and applied to the part, is likewise a good remedy. But the speediest method is to puncture the bottom of the tumour with the point of a lancet; which, as it may always be done with perfect safety, and with very little, and only a momentary pain to the child, is often preferred by the parent, as it instantly removes a blemish which cannot but be unpleasant, whenever any other person may chance to be witness to it. In whatever way the water be gotten rid of, I never knew it return, nor the child suffer any consequent inconvenience; though the complaint is so common that I have seen it in several score instances, and cured in different ways.

WINDY-RUPTURE.

HAVING never seen the complaint, (though often mentioned by old writers and nurses;) and conceiving that

the preceding disorder must have been mistaken for it, I should not have noticed it, but in the view that nothing relating to infantile complaints might be overlooked. Should the purse, however, be really distended with wind; a piece of cotton, fumigated with gum-mastich may be applied twice a day, and the part embrocated with the compound water of acetated litharge, with the addition of a small portion of camphorated spirit; and be supported with a proper bandage.

RETENTION *of the* TESTICLES.

ONE, or both of the testicles, in some instances, remain within the body of infants at their birth, and then a tumour appears in one, or both groins, forming another affection resembling a rupture, and is noticed on that account. As the application of a steel-truss, or, indeed, any other bandage, might here be attended with bad, if not fatal consequences, it is of importance that parents should consult some medical person, whenever they suspect a rupture, especially in male infants.

This complaint being generally owing to a preternatural stricture of the muscular ring (before mentioned) through which the testicles should pass; or to a want of due action in the cremaster muscle, or guide, which ought to conduct them down; I have nothing to recommend, unless it be in a negative way, to forbid any rude handling of the part, or attempts of the nurse to force them into the purse. If any thing of this kind should be necessary, it ought to be done by another hand. In the course of a few weeks, or months, however, the obstacle, of whatever kind, usually gives way; though sometimes, indeed, the part re-

mains confined through life, and its unnatural position is in that case attended with some inconveniences, and a greater chance of injury to the parts; of which I have seen more than one instance in adults. Should inflammation take place, in consequence of any accident, during infancy, every proper means of counteracting it should be immediately had recourse to, such as gentle laxative medicines, and embrocations and cooling poultices, made of the compound water of acetated litharge.

TUMEFACATION *of the* PREPUCE.

THIS little complaint, like the watery-rupture, arises from extravasated water, and is a partial dropsy of the skin, and if it be not attended with inflammation, nor owing to a stone sticking in the passage, as it sometimes is, it never proves of any consequence, and is mentioned chiefly because it is always alarming to parents. It is sometimes preceded by a copious discharge from the part, of a thick but soft consistence, resembling a strong lather of soap, or the froth of milk, which disappears as soon as the tumefaction subsides.

The part may be washed frequently with the compound water of acetated litharge, or be wrapped up in a poultice of that kind, and the body be kept open, which usually removes the complaint in two or three days; but if it should not, the part may be lightly scarified, and afterwards fomented. Should it arise from inflammation, as in the infantile erysipelas, the inflammatory cause must be properly treated. If from a stone in the passage, the stone must be extracted, if within reach; or if otherwise, it should be forced back into the bladder: but this, it will be obvious, will require the assistance of a surgeon.

FALLING-DOWN *of the* GUT.

THIS is a descent of the internal coat of the lower bowel, (this coat being much longer than the others, and full of folds) and is either owing to its laxity, or to irritation. It is no uncommon complaint, nor usually difficult of cure, being generally a symptom of some other, such as worms, or other foulness of the bowels ; or has been induced by rough purges, a looseness, long costiveness, a stone in the bladder, or other irritating cause ; and is usually preceded by a needing : to each of which the proper remedy must be applied, or the cure of the descent will be attempted in vain.

But if the complaint should remain, after the irritating cause has been removed, it will then depend merely upon a relaxation of the part, arising from the long habit of descending every time the child has gone to stool, and is, in general, easily cured merely by an astringent lotion. To this end, a compress of cotton, or soft tow, wrung out of the dregs of red wine, to which may be added a few drops of the water of acetated litharge, should be often applied, and secured by a linen bandage, so as to make a firm compression on the part ; or a compress may be sprinkled with fine powder of myrrh, frankincense, and dragon's blood, or impregnated with the smoke of turpentine cast on burning coals. Should these means fail, suppositories, as they are called, may be made by the apothecary, of powder of balaustines, red rose leaves, and oak-bark, in honey, and introduced into the bowel, after going to stool.—It may be found expedient to have the part supported at such times, by a servant placing a finger on each side the gut : but this caution will not be neces-

sary unless the complaint have been of long standing, or the descent be considerable.

When this is the case, astringent fomentations and injections will also become necessary. These may be made of a decoction of oak-bark, which must sometimes be rendered more powerful, by the addition of a little alum; the quantity of which should be increased as the part may be able to bear it; but only a few grains at any time.

CHILDREN affected with this complaint should usually sit on a hard, flat-bottomed stool, or a chair without arms, and of such a height that their feet may not touch the ground.—For children of eight or ten years old, who take much exercise, recourse may be had to Mr. GOOCH's suspensory, as improved by Mr. SAVIGNY, of *King-street, Covent-garden*, instead of the linen bandage above recommended.

DISCHARGES *from the* VAGINA.

THESE are either bloody, mucous, or purulent, resembling matter.—As I speak professedly only of appearances before the age of puberty, I have merely to remark on the first, that infants have sometimes such a discharge a few days after birth, which appears to be of no consequence. Should it, however, on any account, be thought necessary to attend to it, a little testaceous powder, or magnesia, according to the state of the bowels, will be sufficient, as it always disappears in a few days.

Children of five or six years old, are subject to a mucous discharge, resembling the genuine whites of adults, which will in some instances be in an excessive quantity, so as to run through all their clothes; and is sometimes, though rarely, tinged with blood. If it were suffered to

continue, it would probably injure the health, but I believe may always be cured, by one or other of the means recommended for the next, which may be called the *purulent* discharge, resembling *matter*.

PURULENT DISCHARGE.

THIS is also no uncommon complaint in children of three or four years old, and is then, in general, easily removed by a little cooling physic, and keeping the parts perfectly clean. I have sometimes made use of a lotion of the compound water of acetated litharge, which I believe is preferable to most others, if had recourse to in the commencement of the complaint; and if there be any excoriations, they should be covered with the ointment of acetated ceruse, spread upon linen, or lint.

WHEN the purulent discharge makes its appearance much later, as it not unfrequently does, and is much discoloured, and fetid, it gives rise to a suspicion which parents or guardians cannot be too cautious of entertaining. There are, indeed, instances of little girls, not more than six years old, being *injured*, and it is of consequence to make a judicious discrimination; but there are on the other hand, instances of a very suspicious appearance, as late as the age of thirteen or fourteen, where no injury could be received without the consent of the party, who is generally perfectly innocent; and where, therefore, the least suspicion would be very distressing to her, and might make a whole family miserable.

Discharges with the worst appearances are frequently carried off in eight or ten days, merely by the treatment above recommended; but I have seen some cases in the youngest subjects, of a bad habit of body, where mercury,

as an alterative, has proved useful, though I could not have the least suspicion of a venereal taint. In such cases, I have found WARD's white drop a more convenient medicine than any other preparation of mercury : it may be given in the dose of half a drop, and may by degrees, be increased to two, and even three drops, once or twice a day, for two or three weeks. But where this has failed, I have only to add, that I have been always able to succeed by giving a decoction of the bark, with balsam of copaiba dissolved with yelk of egg, according to the rules of the shop ; which is also an admirable medicine in the whites of adults.

On the VENOM of INSECTS, and of CERTAIN ANIMALS.

THOUGH the following accidents, like some others before mentioned, are not confined to any age, they are, at least, more formidable when they fall to the lot of little children. On this account, it may not be improper to recommend some suitable antidote against the bite, or sting of certain venomous creatures to which they may be more particularly exposed ; and first, of such insects as the wasp, gnat, and other flies ; especially as such accidents happen frequently to children in the country at a distance from medical help, and often alarm parents exceedingly. Indeed, for the most venomous, such help can rarely be had before considerable inflammation has taken place ; after which it will take its course, and will continue, if occasioned by a gnat, three days, and by some other insects, for six ; though the tormenting itching may be allayed much sooner by the means of proper applications. If the bite should be on the eye-lid, the inside of

the lip, or ear, very troublesome symptoms may follow, and the infant will be vexed by it exceedingly.

IN the absence of better remedies, the first application may be, of the strongest spirit at hand, three parts, two of vinegar, and one of sweet-oil ; taking care it do not get into the eyes. But as soon as may be, the following should be applied very frequently ; which will check the progress of the venom, and allay the pain and itching immediately,

Of camphorated spirit, a table-spoonful,
Of distilled vinegar, and of laudanum,
each a tea-spoonful ;

to which, if the injury be not too near the mouth, may be added twenty drops of the water of acetated litharge.

The bite of the common bug which infests crowded places, not only occasions a tormenting itching in children of a very delicate skin, and in certain grown people newly come from open villages, but will also sometimes raise blisters as large as pigeon's eggs, and will inflame the parts for several days. A very good application is vinegar with a small quantity of olive-oil, and a few drops of laudanum : oil alone would rather increase the size of the blisters. But the best application for the sting of any of the above mentioned insects where the inflammation extends far, is ice ; which immediately takes off the heat and itching, and should be repeated for half an hour, or more, at a time, every three or four hours, as long as may be necessary.—For the highly venomous bite of the viper, the immediate application of olive-oil is the well-known, and certain remedy ; as well as the internal exhibition of the volatile alkali. To this end, a tea-spoonful of the compound spirit of ammonia, may be given in two or three

table-spoonsfull of water, with a bit of loaf-sugar, three or four times a day, to children of eight or ten years of age.

On the BITE of MORBIDLY ENRAGED ANIMALS.

UNDER the painful impressions of an awful accident that happened in my own family, some years ago, at the time I was engaged in this part of the work ; (though, I thank God, the alarm terminated happily ;) I cannot avoid dropping a few words on the envenomed bite of *morbidly ENRAGED ANIMALS*. It is not my intention, however, to advert to the peculiar nature of this most malignant poison, nor to enumerate the many deceitful remedies that have been at different times proposed with an air of infallibility ; since dwelling long on this unpleasant subject would ill accord with a tract of this kind. Nor is it my design to propose any new remedy, but rather to lament, that the best preventives should be so ill attended to, particularly amongst the inferiour class of people, to whom this dreadful accident happens oftener than to the rich. And on this account, as well as the subject being rarely treated of, and seldom falling in the way of any but medical people, (who are often consulted too late ;) it is hoped, the intention will apologize for obtruding a friendly caution in this place. For, after a good deal of experience, and much inquiry and reading on this subject, I am confident, that nothing has hitherto been discovered that ought in any instance, to be depended upon, but taking out the injured parts, by the knife or caustic, or the assistance of both ; which, however, if duly and timely effected, cannot fail to prevent every evil

apprehended. But whenever the situation of the wound may not admit of going deep enough to insure success, or too much time may already have elapsed, the stronger mercurial ointment ought to be rubbed in very freely, so as to raise a salivation ; which has at least been recommended by respectable writers ; although such testimony, I am sorry to add, is much weakened by many late experiments.

It may not be superfluous to subjoin the following directions, and especially as the first of them may be executed by a parent, or other prudent person at hand ; and may be of great importance if done as soon as possible after the injury has been received.

Let the wound and the surrounding parts be well washed with lukewarm water, to take off the slaver as much as possible.

Let the wounded flesh be then instantly cut out with a sharp instrument, or cauterised with a hot iron, or with spirit of nitre, or vitriol, (commonly known by the name of aqua fortis, and oil of vitriol) or by the caustic called nitrated silver.

Suppuration will be accelerated, and pain alleviated, by filling and covering the wound with a poultice of bread and milk applied luke-warm, and renewed every four hours.

Let the surrounding parts be then rubbed with the strong mercurial ointment. If the danger be imminent, and the bites deep, or numerous, salivation should be excited as soon as possible. It is also necessary in this extremity, to cut away, burn, or cauterize the flesh around the wound, even although it should appear to be healed up. It is certain, that the wound opens, when the dread of water makes its appearance.

I HAVE only to add, (what it is, indeed, a great satisfaction to be able to say,) that, dreadful as this accident is where the poison has taken effect, it is evident, that only a very small proportion of those who are bitten by animals actually enraged, become really infected. Fortunately, the clothes sometimes prove a defence, by wiping off the foam from the animal's teeth ; at others, it does not happen to be forced into the wound, or is not yet possessed of a poisonous quality ; or lastly, it is not absorbed, or the system may not be in a state to be infected, as is sometimes the case in regard to the small-pox, and other poisons. These assertions are supported by numberless facts ; though such accidents are much less frequent in *London* than in some other parts, especially in the vicinity of large forests on the Continent, where such animals are very commonly met with, and often wound a great number of people.

It is, doubtless, the uncertainty of the bad consequences of such injuries, that has supported the credit of many fallacious remedies on this melancholy occasion. Encouraging, therefore, as the above circumstances certainly are, it would, indeed, be madness to confide in them, where the proper remedy may be made use of in time ; and though I should wish to conceal rather than spread these acknowledged facts, could I think they would have such an effect, it is on the other hand, no small satisfaction, that such encouragement may be justly held out to those who may be under any alarm for themselves or their friends.

COMPLAINTS *mentioned by* ANCIENT WRITERS.

I SHOULD here close the account of Diseases, did I not meet with several others recorded under obsolete terms

by the ancients : these it may, therefore, be proper briefly to notice and explain, as the reader may, possibly, meet with them elsewhere, and be at a loss to comprehend them. Of some, indeed, I know nothing but from the author's own account of them, or that they are needless distinctions of diseases, (already sufficiently noticed) which the ancients were very fond of making, especially in complaints of the skin, but can answer no practical end : of the others, some further account will be given. Such are *Lentes*, *Hispiditas*, *Achores*, *Favus*, *Psorophthalmia*, *Impetigo*, *Ranula* or *Batrachos*, *Seriosis*, *Paristhmia*, *Parulis*, *Inflatio*, *Crinones*, *Malum Pilare*, *Phthiriasis*, *Hydroa*, *Macies*.

THE first six are affections of the skin, or of the eye-lids. *Achores* and *Favus* are a sort of Crusta-lactea, or milk-blotches, so called by some, when of a dark colour, or ulcerated, and extending to the head ; and *Impetigo* when it attacks the chin ; but by others the term *Achores* is applied only to adults. The Scald-head also, denominated *Tinea* when the scabs have resembled moth-holes in cloth, and *Favus* when like a honey-comb ; has been by some termed *Achores*, when the discharge has been unusually acrimonious. *Psorophthalmia* is confined to the eye-lids.— But in these verbal distinctions my readers will find themselves very little interested, unless, as I have said, they should serve to explain certain terms met with in other writers. The following are, some of them, of more importance.

Ranula is an infarction of the glands under the tongue, and I believe, is not very common either in infants, or adults ; and indeed is mostly a complaint confined to particular local situations. I have seen it, however, in this country, in both ; and in the latter of the size of the largest walnut, and it then becomes very troublesome,

both in speaking and swallowing. When large it is usually soft, and contains a fluid, and sometimes sandy concretions. In this case, it needs only to be opened, and to be cleared of these particles ; but if it be hard, the whole tumour must be extirpated. In infants, however, I have known it disappear spontaneously, after having acquired a considerable size.

Seriosis is a depression of the skull ; the bones about the mould, or sometimes only the membrane so called, being drawn in. It is described as an inflammation of the brain, which is sometimes said to mortify. I have never met with any thing like this disorder accompanied with a depression of the skull, though I have seen the precise depression unaccompanied with any disease, and something very like the disease without the depression. The latter was noticed in an infant of five weeks old, who died of convulsion fits, the brain appearing as if in a state of mortification, and smelling exceedingly fetid. *Paristhmia* is an inflammation of the tonsils, or throat, but is certainly not common in this country. *Parulis*, a complaint described by some as a painful tumour about the gums, and by others, as a blister in the mouth. *Inflatio*, is a distension of the skin from wind or water after a child has been reduced by long illness. *Crinones*, or *Grubbs*, is little known as a disease, I believe, in *Europe*. It is, probably, a secretion from the glands under the skin, and appears on the arms, legs, and back, of sucking children ; and is absurdly enough thought by some to be produced by insects : older children are often found to have some appearances of it, but it seldom affords them further trouble than a little itching ; and they amuse themselves by forcing out of the skin what they call worms. In the instance of infants so affected, rubbing the parts with a coarse

cloth, by the fire-side, is all that will usually be necessary in northern climates.

Though this kind of affection is generally of little consequence, whether in infants or young children, I have, nevertheless, sometimes known it prove a very troublesome complaint in older subjects, especially in females about the time of puberty. In such instances, the whole neck, back, and breast, will be covered with little black spots, which gradually inflame till the parts become totally covered with heated pimples. These at first itch intolerably, so as frequently to keep the patient from sleep through the greater part of the night; and in consequence of being continually rubbed, turn to little inflamed and angry boils. When some of these have discharged a suety, or cheese-like matter, and are healed up, others will arise, in succession; and at the end of several months, the superiour parts of the body are covered with them.

After making trial of common purges and alteratives to no lasting advantage, I have cured the complaint by washing the parts morning and evening, for a few days, with the soap-lotion, and afterwards rubbing in a little of the ointment of nitrated-quicksilver; and when the soreness has gone off, making use of a proper flesh-brush, for two or three months. The patient may at the same time take from ten to twenty drops of the water of prepared kali two or three times a day, in a cup of sassafras-tea, or milk and water.

A complaint sometimes confounded with the former, is that called *Morbum pilare*, or hairy disease; but I have never met with it myself, nor is it, I believe, a disorder of this country. It is said to be owing to hairs not duly expelled, which stick in the skin, especially in the back of young infants, whom it torments by an incessant itching,

and sometimes raises small tumours. The cure is said to consist in fomenting the parts, and then pulling out the hairs with a pair of nippers.

Phthiriasis, or *Morbus pediculosus*, is a complaint I should not have mentioned, were it not sometimes found very troublesome, and the heads even of children who are kept the most cleanly, much pestered with these ugly vermin. It is not therefore intended to treat of it as a disease in other parts, (which are sometimes equally occupied by them) and will be quite sufficient to say, that the cure is, in general, very simple, and requires only the hair to be sprinkled for a few days with the powder of staves-acre; a remedy that is kept a secret by some foreign perfumers, who sell it at a great price. Should this, however, be ineffectual, a very small quantity of the white calx of mercury may be joined with it. Some people have strongly recommended an ointment made of parsley-seeds boiled in fresh butter, which is to be well rubbed into the hair for three or four days.—*Hydroa*, or *Sudamina*, is a trifling eruption from the sudorific glands.

Macies, or *wasting*, is a consumption of sucking children, and is applied to a decay, said to arise either from worms, (and is then called the worm-consumption) or to the unsuitableness of the breast-milk; which though it may be good in its kind, will not prove alike nourishing to all children. The milk is then properly directed to be changed, upon which it is remarked, the child will often recover, as I shall have occasion to notice more at large in the *third* volume, on the *Management of Children*. This disorder is, however, a true consumption, from whatever cause, and into which an infant may fall in consequence of almost any of the complaints treated of in the

foregoing pages, when they may happen to prove of very long continuance.

I have now gone through all the disorders that I am acquainted with, that can any wise be ranked among those of infants, or young children, and have taken sufficient notice, as I apprehend, of every complaint worth mentioning ; and may flatter myself this tract will be found to possess the advantage of completeness above every work of the kind. That nothing may be over-looked, it remains to take notice of some *Congenite Disorders*, or such as appear *at the birth*, and certain external blemishes ; and first of those on the *Head*.

HERNIA, or RUPTURE of the BRAIN.

MANY infants come into the world with various parts imperfectly formed, especially about the head ; and never more commonly than in the upper part of the skull. If the deficiency be very great, and accompanied with a like want of brain, as it usually is, such fetuses fall under the class of Monsters ; and being never born alive, are not subjects of this work.

THE rupture of the brain, on the other hand, is met with in infants otherwise completely formed, and is generally curable. It is a soft circumscribed tumour, usually of a round form, and correspondent in size with the extent of the deficiency of the skull ; to which the complaint is owing. It is without fluctuation, or discolouration of the skin, but is attended with a perceptible pulsation of the brain, which keeps time with the pulse. The swelling retires and disappears upon pressure, and is always situate either on one of the moulds, or in the course of one of

the sutures, (or joining of the bones;) and is never larger than a pullet's egg. Where the defect of bone is very considerable, a much larger portion of brain is consequently protruded; which strictly speaking, it were less proper to call a disease, than a fatal mal-formation. It will be very necessary, however, carefully to distinguish the latter evil, which is incurable, from other soft tumours of the scalp, presently to be noticed, which it very much resembles; the latter having frequently the like precise feel of a bony margin around them, although there is really no deficiency of bone. The swelling is also colourless, and often as large as in the fatal mal-formation, but has a considerable fluctuation; and is further distinguishable by the tumour not retiring upon pressure, nor being attended with any pulsation.

The rupture of the brain is, indeed, easily distinguished from them both, by the brief description above given of it; and fatal as it would be were it left to itself, requires only to be properly understood, in order to adapt a rational and effectual remedy. This is, however, beyond the management of parents; but the complaint being likewise not a common one, and therefore not very generally understood, both the disorder and its treatment claim a place in this work.

THE remedy consists only in a careful and due compression of the part; which may be effected by the application of a piece of sheet-lead, somewhat larger than the swelling, and pierced with holes, that it may be sewed to the child's cap. The compression should at first be very moderate, and never so great as to give the infant pain, nor disturb any of the natural functions; though it should be gradually increased as the tumour shall retire. This is all that is required from art, the cure being the business

of nature ; which if the child continue healthy, will proceed in the work of producing bone, and in due time will fill up the vacancy in the skull. The protrusion of the brain was before an obstacle to this process ; whilst the injury which that tender organ must sustain by the pressure from the sides of the bone, exposed it to all the evils which compression never fails to produce, and which it were needless to enumerate here.

TUMOURS, *or* SWELLINGS *of the* SCALP.

THERE are other swellings on the scalp, or head of new-born infants, which it were improper entirely to pass over. The first I shall notice is of the least importance of any, being occasioned merely by long compression in the birth. It is of different sizes, and the skin is always discoloured, with a bruised appearance ; but in any case can seldom require much attention, as it frequently disappears in a few hours. If large, it is common to bathe, or foment such swellings with red wine, or with brandy, or vinegar, diluted with water ; and in general they gradually subside, though sometimes not perfectly for several days. Some of them, however, are of more consequence, and concerning the treatment of which practitioners have differed ; the absolute impropriety of opening any tumours arising from compression having been conceived of by many. On the other hand, it may in some cases be really necessary, in order to prevent a troublesome fungous sore, and even a caries of the skull. The discrimination, however, is sufficiently obvious, such assistance being required only where the above remedies and compression have had no effect, and the swelling is found sensibly to

increase day after day, which in some instances has been the case to the end of the month. Such growth is always owing to the extremities of the vessels ruptured by long compression, being still open, and pouring out an ichorous fluid into the cellular membrane, and thereby keeping up, and increasing the original tumour.

Upon opening the integuments, a bloody fluid is let out, and the swelling nearly subsides, which afterwards requires nothing but moderately astringent applications and pressure, which should be continued for a little time after the aperture is closed.

ANOTHER kind of tumour, of a more unfavourable appearance, though never of bad consequence, was hinted at under the article of hernia of the brain; and of which it will be proper in this place to take a little further notice. These swellings contain a kind of water, or serum, and are often very large, but without that discolouration of the scalp and bruised appearance, which there constantly is in those last described, nor do they, indeed, seem to arise from compression: I have, at least, seen them extending over a third part of the head, and raised an inch or more from the skull, after the shortest and most easy labours. To the description before given of them it may be added, that this kind of swelling, I believe, will always subside very kindly, though sometimes not completely, until the end of the month. In some instances, it begins to lessen in six or eight days after birth, but in others, not till near the end of the third week, and, then subsides very rapidly; and as it falls, more and more of the skull may be felt through the scalp, from day to day, in proportion as the absorption of the fluids takes place. To assist nature, therefore, in this operation, an embrocation formed of six ounces and a half of distilled vinegar, an ounce and a half

of camphorated spirit, and two drachms of crude sal ammoniac may be made use of, with a gentle compression of the part, as well as keeping the bowels properly open.

LYMPHATIC TUMOURS *on the HEAD and BACK.*

THERE is another kind of tumour appearing sometimes on the head, and at others, on some part of the back-bone, which is not owing to accidents in the birth, but is of a morbid nature. These swellings contain a colourless lymph, and are attended with evident fluctuation, as may be discerned by the touch ; and unless they are exceedingly small, ought in no case, I believe, to be punctured, or even removed by ligature, though adhering only by a small pedicle. Those on the head, arise from the pericranium, (or membranous covering of the skull ;) while those which appear on the joints of the neck, or back, or on the loins, if they do not arise from the dura mater inclosing the spinal marrow, seem to originate at least from the periosteum, or immediate covering of the back-bone ; and the issue having a morbid source, will be kept up after the tumours are opened, or even totally extirpated, and preventing the sore from healing, the infant sinks under the discharge, or dies in convulsions.

But there are other swellings of a similar appearance, which being, nevertheless, of a different kind, may be sometimes safely extirpated, and will be noticed below after the Spina Byfida, or forked-spine, to which likewise they bear a considerable resemblance.

IMPERFECT CLOSURE *of the* FORAMEN OVALE, and CANALIS ARTERIOSUS ; *with other* UNNATURAL CONFORMATIONS *of the* HEART.

THESE morbid deviations appearing in different blood-vessels and departments of the heart, have in all of them the same tendency, viz. in a greater or less degree, to obstruct the passage of the blood through the lungs, which in some instances has continued nearly the same as in the unborn-fetus ; which it ought not.

These sources of disease, however, are noticed merely with a view of pointing out the symptoms by which they may be known, and affording some temporary relief, but not of suggesting a remedy ; which is out of our power. The recital, however, may serve to distinguish them from a disorder of less importance, attended with a similar discolouration ;* as well as to prevent fruitless attempts, and perhaps the aggravation of the symptoms, and consequent distress of the infant, where upon due knowledge of the disease, art has, evidently, nothing to offer. The imperfections are owing entirely to an original mal-formation of parts, or to a deficiency in the powers of the system soon after birth ; the only time in which that diversion to the circulation can take place, which nature has intended upon the change made in consequence of respiration.

IN whatever part of the heart the mal-conformity may be, whenever it may prove of any consequence, the constant symptoms attending it are a discolouration of the face and neck, with a sloe-blue, or leaden-colour of the lips, such as is met with in some fits of asthma. These almost always take place very soon after birth, and the

* See page 262.

discolouration is increased, and attended with difficulty of breathing, as often as the child is anywise agitated, whereby it is generally disposed to throw itself in a horizontal, and supine posture. These symptoms are not at all relieved by procuring stools, by the warm-bath, or any other mean made use of as a remedy for fits ; nor can be by any thing but the child being kept as tranquil as possible, and by a strict attention paid to his food, and the state of the bowels ; which should be kept open, and nothing be taken that is likely to occasion indigestion or wind.

In some instances, children sink very soon, of which I have seen one a short time ago ; but in others, they may survive for months, or even for years. The patient, however, in most cases, can endure but little motion, the heart becoming thereby surcharged with blood, and respiration rendered more difficult ; hence also the blood is detained in the extremities ; and the face, neck, and hands become particularly discoloured. Some time, indeed, before the patient sinks under the disease, the symptoms are aggravated, and almost the least motion endangers suffocation.

SPINA BYFIDA, or FORKED-SPINE.

THIS morbid affection has passed under various names, as writers have been severally impressed by the cause, effects, or the appearance of the disease. It has therefore been termed a dropsy when the part has contained water, and in other instances, a hernia (or rupture) of the spinal marrow ; its structure being in such cases destroyed, and a spongy substance filling up the cavity of the membrane surrounding it, and protruding through the divided, or *forked-spine*, (from whence its more appropri-

ate name) as in the common rupture the bowel pushes through a dilated aperture.

It is remarkable, that this disorder, though now every where to be met with, was not described, as I believe, before the year 1641. It is an original mal-formation in the bone and contiguous parts, and seldom admits even of much temporary relief, though some evils may be prevented by pointing out the most suitable and innocent applications to the part ; for as to internal remedies none can be offered.

This disease fixes either upon the superiour parts, and is then seated upon the last joint of the neck, and the first of the back ; or else is lower down on the last of the loins, or more commonly, on the seat-bone, and is usually upon the centre, and posteriour part.

The skin is sometimes entire, and sometimes ruptured externally, at the birth ; and in the latter case, I believe, the infant is always still-born, at least, it has been so in all the instances that I have met with ; though such fetuses are often full-grown. In this case, the edges are prominent, and the centre is, of course, depressed, the ulcer very much resembling the form of the human mouth when the angles of the lips are drawn together, and the middle part is pushed forward.

When the skin is entire, the disease appears in the form of a tumour, varying in size from that of a pea, or even smaller, to that of an half-crown piece ; being also more or less elevated. The highest point is usually very thin, and sometimes transparent, from having no true skin ; but the other parts of the tumour are red or livid. The surface is generally very soft to the touch, especially in the centre, from which a fluid retires upon pressure, and round the margin of the swelling the hard edges of the

bone may be distinctly felt ; a circumstance that ought always to be attended to, as characterizing the disease. In other cases no fluctuation is perceptible, but a flesh-like substance, hard and thick ; and such infants cannot endure being laid on the back, but presently become convulsed. In one instance, the disease was situated between the blade-bones of the shoulders, and the skin was not at all discoloured ; the deficiency of bone was, therefore, probably, very small, as likewise seems to have been the case from the event ; this infant happily recovering.

Many children born with this complaint do not appear to have suffered by it while in the womb, being healthy, often large, and very strong ; but some are otherwise mutilated ; it being not uncommon to find one or both the ankles distorted, or to have the lower extremities weak, and sometimes totally paralytic : and there is in others a great deficiency of bone on the upper part of the skull. The higher up the seat of the *spina byfida* may be, the greater is usually the injury, and the sooner the infant perishes, unless the aperture of the bone be very small, as, it has been said, is sometimes the case.

It is more commonly a mere local disease, confined within the circumference of the swelling ; but in other cases, the water rises a little higher in the cavity of the back-bone ; and hence, it has been noticed, this disease has been considered as a proper dropsy of this part, as water collected in the brain, is of the *head*. In some instances again, the bony-column is open from the hind-head to the seat-bone, and the water is even found to descend from the head ; the two diseases being then conjoined. These disorders have also sometimes been found to succeed each other.

THE disease becomes fatal in consequence of the swelling being opened, or the integuments otherwise giving way, which is usually from a little slough, or mortified spot, forming upon the thinner parts, which soon spreads wider and deeper, and so opens a way for the escape of the lymph, or water. In a few days afterwards, and usually on the third, the infant dies, unless the parts should soon close again; which has but very rarely happened. A remote cause of the child's death then seems to be the escape of the lymph, which is frequently soon followed by a strong convulsion, in which the little sufferer expires. But where the integuments have remained entire for any length of time, their rupture has then gradually brought on hectic fever and decay, in consequence of a profuse drain from the part. But it is more common for the little patient to die either in a few days, or a week or two after birth, and then probably from some morbid change taking place in the spinal marrow, from the admission of air; which is known to be always injurious to internal parts, and more particularly to membranous ones, and therefore must be peculiarly offensive to the spinal marrow and its sensible covering. These parts have, indeed, suffered from the birth, from the nature of the disorder, and it is not therefore to be wondered at, that such infants are more or less convulsed, and appear several times to be dying, before that event actually takes place, and that they are often otherwise ill; though some children appear pretty well till the integuments give way. I remember one child who would not take the breast for twenty-seven days, and was several times thought to be dying; but afterwards taking to it properly, was greatly recruited; appearing, except for this disease, in a promising way, and lived four weeks afterwards. The late Mr.

HUNTER told me, that he had seen a child living with this disease at the age of eighteen months ; and one born at the hospital about five years ago, is still living.

THE means of CURE that have hitherto been proposed for this dreadful disease, are, opening the swelling, in order to evacuate the water ; or pressure, with a view to retain it, and consolidate the parts ; neither of which, that I can with any certainty learn, have ever succeeded, unless it be in one instance mentioned by an old writer ; but in this, the disease did not appear at the birth. The means, however, do not always seem to have been employed with proper discrimination ; since the very possibility of their succeeding will depend upon the size, and other circumstances of the tumour : for opening it can never be adviseable where it is large, and the consequent internal derangement of parts is considerable : nor pressure, where the water is found communicating with the fluid above, in what are called the ventricles of the brain.

The size of the tumour, it has been noticed, is various, and agreeably thereto must be the possible chance of recovery ; as well as the probable duration of the disease, where it proves ultimately fatal. This, indeed, is more frequently within three days after birth, or if the infant survives much beyond that time, it will be owing to the resistance of the integuments ; young children, it has been said, seldom surviving the third day after the water begins to be freely evacuated. This fact, together with a similar event, where the swelling has been opened, furnish a sufficient caution against artificially letting out the water. At the same time, other cases equally forbid the indiscriminate use of pressure ; water in the head having been known to follow it : it having been very aptly remarked, that if nature cannot get relief in such cases, by letting

out the water at so distant a part from the head, no benefit can be derived from any means that may necessarily occasion an accumulation in the brain itself.

In such instances as the above, it is probable that the source of the disease has been in the head, the water having made its way from the fourth ventricle of the brain; nature ever attempting to relieve the oppressed, and especially more noble, parts. But in other cases it should seem, that the disease has commenced in the loins, and the secretion being great, and the resistance below considerable, (possibly from the bony process being far advanced) the water has ascended to the head. But it appears, that the water has more commonly been confined to the backbone alone, and then has not been in great quantity.

It must be in the latter case only, as well as where the swelling, and deficiency of bone are inconsiderable, that any benefit can be expected from puncture and bandage, as Mr. ABERNETHY has lately ventured to propose. But from several objections which have been noticed above, arising from circumstances which Mr. ABERNETHY does not seem to be aware of; nor can be always previously ascertained; I should not think that parents would readily consent to the experiment, or that surgeons can have much to offer as an inducement to it, especially as the want of success is so likely to hasten the death of the infant.

ABOUT the time, however, that the above account was given in a former edition, I learned that Mr. ABERNETHY had ventured to make the experiment. The swelling was punctured, he says, every fourth day for six weeks; during which time the child continued unaffected. No contraction, however, of the integuments took place; and at this time one of the punctures did not heal, but permitted the fluid to ooze out. The discharge gradually changed from

a limpid to a puriform appearance, as from a sore, and in a few days the child died. "This case is interesting, (he adds) though unsuccessful ; as it shews that the attempt at a cure may at least be made without hazard."—I should myself observe, however, that the last opening not healing up, and the infant dying a few days afterwards, serves rather to confirm the suspicion I had entertained of the probable inutility of the puncture.

From the general report of authors, indeed, as well as the result of my own experience, very little relief can, in general, be expected anywise from art. Some discrimination of cases, however, should be made, and perhaps this will refer principally to the absence of any symptoms indicative of water in the head, and to the size of the swelling, on whatever part of the bone it may be ; but the lower down near the seat, the more favourable. As to the first of these, the usual symptoms of compression of the brain do not, indeed, present themselves ; and it is probable, owing to the relief which that part receives from the descent of the water to the parts below. The presence of water in the head may, nevertheless, sometimes be discovered, it being reported that upon pressing the swelling, the rising up of water has been felt by a hand placed on the mould of the head ; and that from a firm pressure there, the water has again forcibly descended into the tumour on the back-bone.

IN the absence, however, of every symptom leading to the suspicion of water in the head, and when the tumour on the back, especially if low down near the seat, is very small, (for it has been met with of the size of a vetch-seed ;) a firm compress, and sprinkling the part with astringent powders, or the use of similar fomentations may be had recourse to, as recommended by a German writer ; and who says, he has seen ten cases. This opinion has

been formed from some children having lived for several years with this complaint : but the swelling in such instances, I apprehend, has been very small, and the children have died whenever it has acquired the size it has, more commonly, at the birth. In such cases only, I imagine, can the attempt with any propriety be made ; as otherwise, the tumour will, probably, be only ruptured the sooner by the bandage, and in consequence, the life of the infant be shortened.

There is not, however, the like objection to the use of an astringent, or cold embrocation, or more especially to drying powders, such as armenian-bole, japan-earth, alum, and such like ; which may be sprinkled on the part as occasion may require, to prevent the oozing of the lymph, by forming a kind of crust over the pellucid surface. Such applications may also have a tendency to retard the rupture of the integuments, and thereby prolong the life of the child ; which is generally all that art can effect : and, I have myself, indeed, no further experience of their efficacy in the true forked-spine, although I have known such means, as well as excision of the parts, effect a cure in cases very similar in form and appearance to this fatal complaint,* but without any deficiency of bone.

In regard to the bandage, I have been informed that the late Dr. HUNTER in his lectures, at one time, used to caution against the attempt, from his own experience of its hastening, as he thought, the rupture of the integuments ; but whether the trial had been made in the fittest case as here described, I could get no information.

Should the size or figure of the head, however, be from such management affected, or the infant manifest any increase of pain ; or if convulsions, drowsiness, or other bad

* See *Parenchymatous Tumours* in the next Chapter.

symptom should supervene, the bandage ought to be taken off, and the mildest application be substituted, in place of the astringents. In this view, a bread and milk, or saturnine poultice, applied lukewarm, may be had recourse to; which is the modern practice whenever the swelling is, large from the birth, and is, probably, in such cases, the fittest application that can be made use of; as it will sit easy on the part, and by forming a soft cushion, as it were, for the tender skin to rest upon, will, in so far, dispose it to be preserved entire as long as possible; the life of the child, in most cases, depending entirely upon that circumstance.*

PARENCHYMATOUS, (or SOFT SPONGY) TUMOURS.

THE resemblance which some of these were said to bear to the last mentioned disorder, renders them worthy of particular notice, being not always easily distinguished from it. They appear on different parts of the backbone, but more commonly near the neck, or to the seat-bone; are accounted *marks*, and are often of a morbid nature; and it is imagined, would not unfrequently prove fatal, if left to themselves. As I design, however, treating only of such as will admit of some remedy, I shall mention only two.

THE first is a swelling on some of the joints either of the neck, or the back; and more commonly of the former: it is of a sublivid hue, unequal, internally spongy, and full

* If any apology be judged necessary for so extended an account of this and some other disorders, in which some readers may find themselves but little interested; the author has to observe, that he has conversed with others who wish for a distinct account of every disorder; which it is hoped may, on the whole, render his attempts more generally acceptable.

of vessels. As on this account these tumours are disposed to bleed, astringent applications become proper. I have found the following powder answer very well.

Mix two drachms of Armenian bole and japan-earth, with one drachm of roche-alum.

The swelling being sprinkled with the above powder, compresses wetted with the compound water of acetated litharge should be applied over it. These will form a kind of paste, and should be renewed as often as any fresh oozing from the vessels may render it necessary. A further compression may be made by a piece of thin lead.

In the other case alluded to, the swelling has been at the lower part of the back, and very much resembling the *spina byfida*. Here extirpation has happily succeeded, and certainly saved a child's life, though a good deal of blood has been lost in the operation.

HEPARTOMPHALOS, and the VENTRAL, or BELLY-HERNIA.

THE larger *hernia*, or rupture of the belly, in which, from a deficiency of the muscular, or fleshy integuments and skin, some of the bowels, and not unfrequently the liver, is protruded, is very often met with in abortions in the earlier months; though less commonly in full grown children. I have, indeed, never happened to see it in the live-born infant, unless in that instance of it termed *hepartomphalos*; which is the more immediate subject of this chapter.

In the true *hepartomphalos*, however, there is, possibly, no actual deficiency of the muscular or ligamentous integuments, and much less of the skin; but as the term strictly implies, some part of the liver forms a rupture at the navel. The liver while very small is (possibly by some ac-

tion of the child) somewise drawn down by the vessels of the navel-string, which in their due course enter it ; is protruded at the muscular ring, and falls into the navel-string ; which it dilates and distempers. This disease is a very rare one, I believe, in living children, and I have met with only one case upon record. The subject of this, as well as one of the two I have myself seen, fortunately survived the disease, but some months afterwards dying of another complaint, and the bodies being carefully examined, the fact, was established ; and demonstrates the powers of the animal machine, in removing obstacles to its well-doing, that might be thought insurmountable.

Suffice it to say, that the liver in such cases, forms a swelling as large as a middling-sized China-orange ; is of a dark colour ; and in a few days puts on all the appearance of a mortified part. The fittest application, I believe, is a poultice of bread and milk, which at once preserves the part warm and moist, and is a kind of soft cushion for it to rest upon. The bowels should be kept duly open, and the bark and cordials administered as circumstances shall direct.

WHEN an infant recovers from this rare and hazardous disease, the sore begins to heal as the liver is, (in consequence of respiration) gradually withdrawn into its proper place, and only a small scar remains ; but there never is the usual appearance of a navel ; the skin having been destroyed by the disease.

On the HARE-LIP, and other EXTERNAL BLEMISHES, or DISORDERS, supposed to be MARKS of the MOTHER.

THE *Hare-lip*, being one of the most important, and common of these blemishes, and supposed *marks*, may

naturally claim some peculiar attention; and being capable of considerable remedy by manual aid, may be expected to lead to a few cursory observations on surgical *operations*. To point out on every occasion, the mode of performing them, would, indeed, ill accord with a work like the present; I may, however, beg leave to notice a circumstance or two relative to the operation for the *hare-lip*, because parents feel themselves so peculiarly interested in it, as often to give a bias to the opinion of others. I shall afterwards advert to some other equally common blemishes, if it were only for the sake of adding my testimony to that of former writers, who have in an able manner, though not with equal success, combated the unhappy prejudices of mothers in relation to *marking* their children. This, unfortunately for themselves, they are always disposed to attribute to a violent impression from the sight of some disagreeable object, or to a disappointment in something they may have longed for, during their pregnancy.—And I have chosen this place for such observations as I have to offer on this head, because the *hare-lip*, and some other blemishes remaining to be noticed, bear that resemblance to objects around us, which is wanting in those before mentioned.

THE repeated experience of every attentive observer, has uniformly militated against the tormenting suspicion alluded to; but still it prevails, though only to the injury of those who ought, for their own sakes, to be persuaded to the contrary. Every man long in business has known many instances of affectionate mothers, (for this needless distress falls only to the lot of such) who have tormented themselves for six or seven months, in the painful apprehension of discovering some sad blemish in the child, (and on this account have trembled to look on it when

it has come into the world ;) which has afterwards proved to be as perfect as they could wish, and as the more dispassionate amongst their friends have all along ventured to foretell. On the other hand, where children have been born with some real blemish, it has not been suspected by the mother,* unless now and then in a most timid person, (who has always bred in fear on account of one disagreeable object or other she has seen ;) or else, the

* Among several instances of such blemishes in children born in the British Lying-in Hospital, we have had some remarkable ones of the *entire ignorance* of any supposed cause. One infant was more marked than almost any I have ever seen ; and another had the extremities uncommonly ill-formed ; but the mothers of these infants had gone on to their full time, without having received any fright they could recollect, or suspecting any thing amiss in their children.

I should not, indeed, have ventured, even in a note, to have alluded to such deformities, but on account of their aptness, and in the hope of preventing rather than creating fears and suspicions, in women of peculiar sensibility. For these children were really so disfigured, that a lively imagination, with a mind strongly impressed, might not only have conceived in them a great resemblance to many objects, but it is more than probable, that the parents must have actually noticed not a few such, during the period of gestation. Where any such deformity therefore may actually have taken place, I only wish ladies to be persuaded, that such sights have not been the true cause of it ; nor can such objects, therefore, contribute to the production of the like appearances another time.—In this view, I cannot help observing, that a few years ago, a lady of rank acquainted me, that she had passed almost the whole term of gestation in the apprehension of her infant being born with a *Hare-lip*, on account of her having been daily met by a labourer working in her own grounds, who had such a blemish. In this instance, the imagination seemed to have done its utmost ; as the lady conceived she met with this man oftener than any other, and that she could not avoid him, walk whichever way she might ; and in consequence had his image continually before her, either in reality or in recollection ; and being kept under a continual alarm by it, in the end declined walking at all in her garden.—After the opinion I have advanced, it may be needless to add, that the child was born free from the apprehended, or any other blemish.

blemish has turned out to be something *perfectly irrelative* to it. And here it ought to be noticed, that where a child has really been marked, and the mother has insisted on her having seen, and been frightened by an object which the blemish has resembled, it has (to the best of my knowledge, at least) appeared always to be an after-thought, by which the supposed occasion of it has been discovered; and has not been taken notice of before-hand: whilst other ladies, it has been said, have borne children more considerably deformed, and have recollected no alarm, or disappointment whatever.—It is, however, the furthest from my thoughts to upbraid the sufferer on this painful occasion, or to tax any with a wilful giving way to suspicions, into which, I am persuaded, their feelings alone insidiously betray them. I wish only to obviate the influence of a sentiment that I take to be without foundation—a sentiment which has originated in ignorance, and to which nothing but length of time, and prescription, could have given a sanction.

THAT there are blemishes which bear a resemblance to various objects around us, daily experience has proved; though the precise occasion of them is not, perhaps, understood. The like deviations from the ordinary course is observed, not only in various other animals, and that not unfrequently, but also in the vegetable kingdom; in which the supposed influence can have no place. Thus, fruits are often joined together and discoloured, having excrescences, and odd shapes, offering strange representations resembling animals, as well as unmeaning irregularities, similar to those found on the bodies of infants: all, doubtless, proceeding from the established laws of motion, though not well understood by us.

In regard to various discolourations in the skin of infants, fancied to resemble fruits, and like them becoming of a deeper red in summer ; it may be, however, in point to observe, that the outer, or false skin, (so called) is, in such kind of marks, frequently altogether wanting, and if not, is always thinner than on other parts. The small blood vessels being also more numerous, or nearer the surface, the discolouration of the skin becomes a natural consequence ; nor can it be any wonder, that this discolouration should be greater in summer when these small vessels are more turgid with blood. The like change takes place in every mark on the face, when the person either cries, or is made angry, or when by any other means the blood is made to ascend to, or rest longer than usual in the superiour parts. All such appearances are, therefore, very easily accounted for, without supposing them the consequence of the parent having longed for such fruits as ripen, or grow red, in the summer months. We observe also similar changes in adults from long continued severe exercise, or hard-drinking ; many people, before of a fair complexion, suddenly acquiring a red face, or have the nose both discoloured and mis-shaped, as every one must have seen.

The laws of motion will also equally account for the mutilation, and want of certain parts, the growth of which is somewise interrupted ; it being well known to anatomists, (and the reader ought in a view to this subject to be apprized of it,) that the several members and parts of the body are not all formed or unfolded at once, but are pushed forward in their turn after some established law of nature, and of organized matter. If therefore a due proportion of nourishment be withheld from any part, its proportionate growth is suppressed, or its formation entire-

ly prevented.* Hence the hare-lip ; the two sides of the face, which are formed separately, being hereby prevented from growing together ; and the upper lip being one of the last parts that unite. But whatsoever may be the weight of these observations, there is certainly nothing that we know of in a fright or longing, that can produce such a change in organized matter, nor can operate in the manner that has been supposed, much less at such different periods ; but there is on the other hand, every thing against such an hypothesis ; which has accordingly always given way in enlightened ages. And, were a due catalogue drawn up of all the irregularities discovered in newborn infants, that are supposed to proceed from the mother's *Imagination*, they would appear to be the same over and over again, and very capable of being reduced into certain classes.—Does not this intimate that they proceed from the laws of motion, and the structure of the organs ? There are besides many considerable deformities, which are never referred to the *Imagination*, I mean all the *internal* derangements ; and wherefore should this business be so divided between Nature and Imagination, that the one should rule within, and the other govern the outward parts ?

The unborn-infant is a distinct individual, having a circulation, and nervous system of its own ; and has its diseases in many instances, very much independent of the mother, many infants being born blind, deaf, dead : some with water in the head ; or have the bowels, or bladder, imperfect ; with various other disorders. For the like

* The like process takes place in flowers—Thus, if a rose-bud, for instance, be blighted, some of its leaves are found curled up, and the flower turns out ill-shaped ; or, perhaps, is so much injured, and the bud so far withered, that only a few leaves appear, the rest being never completely formed, or unfolded.

reason, very healthy mothers are known to bear small and tender infants, and those of delicate constitutions, very robust children ; though in many instances it is certainly otherwise.

THE instance so often adduced from the sacred historian* in opposition to such arguments, is, by no means, in point : for without adverting to the very peculiar natural circumstances in that transaction, which are wanting in ordinary instances, it is sufficient to observe, that there was therein an evident supernatural interposition. Should any one in this sceptical age doubt of this, he has only to make a similar experiment, the result of which will, probably, have more weight than ten thousand arguments. As matter of fact, therefore, as before observed, does not at all countenance, but directly contradict the hypothesis, there is the strongest reason for married women arguing themselves out of such fears, instead of reasoning themselves into them, and suffering a painful conflict for weeks, and months together. It will give me great pleasure if any thing I have advanced on this subject, should answer so desirable an end, the hope of which may, perhaps, offer some apology for having said so much in the attempt ; whilst reason, philosophy, experience, and every thing on which we ought to depend, conspire to support the expectation.

AMONGST the various *Marks* resembling some of the objects around us, that called the *Hare-lip* is, perhaps, the most common ; a blemish therefore too well known to require a formal description. It is sufficient to observe, that it is of two kinds ; the simple, wherein the upper-lip only is divided, either wholly or in part, with some loss of substance ; and the complex, in which the fissure of

* *Genesis*, ch. 30. ver. 37-42.

the lip is double : in some instances, the portion between the fissures is likewise too small to fill up the cavity, and in some it adheres to the very tip of the nose. The upper jaw also, and the palate of the mouth, even to the extremity, are sometimes divided.

The kind of operation therefore adapted to such different circumstances, must vary exceedingly ; but in general it may be said, that when the parts have been brought together in the best manner the nature of the case will admit of, the ligature should be drawn over them as lightly as possible ; the needles being removed as early as may be, trusting afterwards for support to sticking-plaster and bandage ; and the infant continue to be fed by the spoon until the parts adhere pretty firmly. On the *time*, indeed, in which the operation ought to be attempted, something more may be said, because in this it is, that the parent's feelings are specially concerned, and sometimes mislead them.

Various considerations, indeed, contribute to make the distressed parent solicitous to have this blemish removed soon after the infant is born, or at furthest before the month shall be expired. On this account, I am convinced, the operation has sometimes been prematurely performed, contrary to the better judgment of the operator, and the child thereby fallen a sacrifice ; whilst others have received much less benefit than they would have done, had the operation been postponed for a reasonable time. Where the blemish is very trifling, indeed, and the operation simple, it may, in many cases, be done with safety in the course of the month, or a little after ; and if the child be able to suck, which is not always the case, there are even some advantages in performing it sooner. For as the child will not be able to suck for two days at least after the operation, it will with difficulty be kept toler-

ably quiet by the spoon after it has been once put to the breast ; but as infants need but very little nourishment for the first days after birth, and generally sleep a good deal ; if the operation be done twenty-four hours after the child is born, it will be in a condition to suck by the time it requires much nourishment, and the mother's breast is prepared to furnish it. But in the complex hare-lip the case is exceedingly different, and the longer the operation is postponed, the better it is likely to succeed, and should, at least, be deferred till the child shall be four or five months old ; the good effects of which I have sufficiently seen. By this time also, the infant will have got over the period in which it is peculiarly liable to several painful and dangerous complaints ; will be thoroughly weaned from its hankering after the breast, and have learned to feed contentedly with the spoon ; by which children with this kind of hare-lip are obliged to be supported, they being generally unable to suck. At this period likewise, the parts will have acquired such a size as will admit of handling them to greater advantage, as well as a degree of firmness necessary to retain the needles ; for the want of which, though the operation may appear to have been favourably performed, the needles will sometimes break out ; and the deformity be but little removed, or perhaps sometimes increased.

I HAVE seen another blemish of the mouth, requiring a similar operation ; the mouth being much wider on one side than on the other, appearing as if it were divided far into the cheek, and occasioning a very awkward appearance. But as the defect is less, and more simple than in the hare-lip, and the parts less exposed to injury after the operation, it may safely be performed sooner, and to more certain good effect.

DISCOLOURED-SPOTS.

AMONGST other blemishes that may require surgical assistance, are those which women are wont more especially to call *marks*; being spots, more or less elevated above the surrounding skin, and of various forms and colours. These may fall on any parts of the body, but are very little regarded except when found on some uncovered part, especially the face; where, perhaps, this kind is most commonly met with.

These, however, vary so much in shape, size, and in some other more important circumstances, that it were nugatory to attempt to point out the precise operation adapted to many of them. Suffice it to say, that in some, excision of the discoloured and elevated parts, or destroying them by caustic, is the only remedy; in others, compression alone is sufficient; and in a few, compression, together with slight puncture and caustic will be called for. In some parts of the face, as the cheeks, lips, the nose, and near the eyes, the knife or lancet must be had recourse to with caution; though whenever made use of, it will be necessary to carry them full as deep, and far, as the distempered vessels may happen to extend, or the operation will not be completely successful. It is, indeed, sometimes necessary to repeat it; and it would, in many instances, be better to do so, than to risk, in the first operation, destroying any sound parts unnecessarily, by which the scar might be extended. Where great caution has been found expedient, it will sometimes happen, that though the blemish may seem to have been fully removed, the redness and tumour will after some months return; but even here, as a touch with the caustic called

nitrate of silver, after lightly scarifying the parts ; or at most, the carrying the lancet a little deeper than at first, will perfect the cure, it were pity it should be neglected, distressing as the idea of a second operation must be to the parents of the infants. In some instances, however, the recurring elevation as well as discolouration of the part, when slight, have gradually subsided without a second operation ; which it may therefore be proper to defer for a few months. From the very great advantages derived from these means, in some very unpromising cases that I have been witness to, I have been led to offer these remarks ; and not doubting, that other practitioners have seen the like, I wish to impress the idea of consulting some skilful surgeon upon every great blemish, persuaded that many parents will, in the event, have occasion to be thankful for the advice.

TUMOURS, *and* SUPERFLUOUS PARTS.

A DIFFERENT kind of blemish consists in little tumours and superfluous parts, without any discolouration of the surface. The former lie more or less deep under the skin, and consist of extravasated lymph, hardened fat, or indurated glands. Some of these will disappear spontaneously, while others may be effaced merely by compression ; and some can be removed only by caustic or incision. Pendulous parts occur very frequently, sometimes adhering only by a small base, like a thread, and may then be removed by only passing a tight ligature round them, as was directed for the common wart. But should any even adhere more firmly, and be only a small joint, such as a finger or a toe, it were better to have it taken off

on the first days ; as the vessels will then bleed but little, and the gristle by which such joints are usually connected, are not yet become bony. But should the part be more completely formed, it may be necessary to delay the operation a while longer, that by discovering which of the duplicates may take the lead, the more promising one may be preserved ; which is not always to be known with certainty at the birth.

UNUSUAL FIGURE *of the* PARTS.

I NOTE these trifling blemishes with a peculiar satisfaction, from experience that nature alone is able to remedy them in certain instances wherein I had previously conceived, that some considerable recourse to art would be called for. These blemishes more commonly occur in some parts about the head, particularly the ears and nose. The latter of these is, certainly, of the more importance ; and is sometimes turned greatly on one side, with one of the nostrils open very largely, while the other is too small. Suffice it to observe, that after trying what could be done by plaster, bandage, and other contrivances ; nature alone, it has been said, by the force of the circulating juices, has brought the parts, in the course of a few weeks, into their proper form.

BLEMISHES *after* BIRTH.

BEFORE I quit this part of the subject, it will be proper to notice other *marks*, so called, that arise after the infant is born : but such are not very common ; and have not been mentioned, as I know of, by any writer. They consist of small, red, or even black spots, about the

face ; and I believe are disposed to increase in size ; and should therefore be taken out early, as may be then easily done, with the point of a lancet.

BESIDES the aforementioned derangements met with at the birth, there are others of far greater importance, some of which demand an operation as the only chance for preserving the life of the infant. Such are imperforations of the vagina, the anus, and the urethra.

IMPERFORATE VAGINA.

THE VAGINA, or passage to the womb, is sometimes imperforate, or closed, on the *external*, at others, only in the more *internal* parts ; and is in different degrees. The latter more commonly relates only to the hymen, which requiring an operation to be performed about the age of puberty, I shall do no more than barely mention here, especially as it requires only a simple, or crucial incision, and to preserve the orifice open. Where the imperforation is in the substance of the vagina itself, I have never found an operation to be of any use, though I have known it attempted, in the adult, with great address and resolution.

I have never met with the *external* parts totally imperforate, there being always a small opening near the natural aperture leading to the bladder ; but I have found the aperture higher up so very small as to require a little operation, which is very easily done with the fingers, or at most with the mere point of a lancet, (though the latter, I believe, can seldom be necessary) there being always a line, directing the extent nature has seemed originally to intend ; which being cut through, or the adhesion, other-

wise, separated, requires only that the parts be kept asunder for a few days, by a bit of fine lint.

It is in this instance peculiarly important that practitioners in midwifery, and others attending at the birth, should examine infants very attentively in regard to this complaint, which may be otherwise overlooked, the defection proving no obstacle to the natural excretions. I have met with several instances of it in children from three to six years old, in whom the complaint was but newly discovered, and it has been, in others, neglected to the time of puberty, and even of marriage ; and must then prove of serious consequence, and may even be attended with hazard.

The RECTUM INCOMPLETE.

THE RECTUM, or lower bowel, likewise is sometimes found opening into the vagina ; a case that affords but little prospect of relief. It should, however, be attempted ; but the kind of operation must depend so much upon circumstances, that it cannot be here pointed out with any precision.

IMPERFORATE ANUS.

THE ANUS, or *extremity* of the lower bowel, is sometimes closed only by a thin membrane, so that the day after birth the fecal meconium may be distinctly felt, and in a manner seen shining through it. But more commonly the imperforate anus is a melancholy case, as it seldom allows of an effectual remedy, the gut often terminating in a *cul de sac*, or blind pouch, so high up as not

to be reached; it is not, however, always to be despaired of, though no fluctuation of the contents of the bowels should be felt for two or three days after the infant is born.

Though this sad defection is not very uncommon, I remember only two cases of the kind in the *Lying-in* hospital; one of these it was my province to attend; and in that I happened to succeed, contrary, indeed, to all expectation, and even after the child had puked up a great quantity of meconium; and not only the belly, but also the face was become exceedingly tumid, and the eyes had not been opened for some time.

The manner of doing this operation must, in different cases, depend so much on the discretion of the operator, that it would be needless to say more, than that a trocar as well as a lancet is generally required; and that the operation ought to be postponed as long as it safely can, that the depending part of the bowel may be distended, and pushed as low down as possible; and that a piece of bougie should be occasionally introduced, and sometimes left in the part, for a few hours, for the first fortnight.

IMPERFORATE PENIS.

THE imperforate PENIS occurs less frequently; but is often suspected, when the aperture of the passage is merely stopped up by a little mucus; and should therefore be examined in good time. In this case washing the part with warm milk and water, or at most, a little assistance with a small probe, or any such blunt-pointed instrument, will be sufficient to open the passage. But it is evident, if the canal leading to the bladder be wholly want-

ing, no operation can be undertaken : it is, however, more commonly found open a certain way, and often as far as the basis of the glans, and sometimes near to its extremity ; in which last instance, it is necessary only to make a small aperture with a lancet, or a fine trocar, and to keep the part open by the occasional introduction of a slender bougie. The more common complaint of this part, however, is that of the urinary passage terminating by a small aperture at a little distance below the glans, and sometimes on one side of it. In these cases, the precise circumstances must determine the propriety of any operation, which if not judiciously managed, may render the case worse than it was.* In other instances, the part is drawn downwards, or to one side ; the peculiar circumstances of which, must point out the nature of the operation most likely to afford relief.

The EARS IMPERFORATE.

I HAVE likewise known the EARS to be imperforate, a case that admits of no remedy ; but the external appearance may sometimes be improved, when the outer circle is turned forwards over the inner one ; covering that part which ought to lead to the *internal* ear : but in these cases, I have always found the passage totally obliterated.

* It is on this account, (as noticed in the Introduction) that these several hints are dropped in regard to *operations*, that the intelligent reader may form some judgment respecting the propriety of the mode of relief that may be proposed, when at a distance from the best surgical advice.—It may be added, that the author had lately the satisfaction of learning, that the precise directions afforded in regard to a case requiring immediate help, was the mean of saving an infant's life, in an obscure part of the country, where the practitioner acknowledged himself perfectly unacquainted with the disorder till the lady put this Tract into his hands.

SQUINTING.

ANOTHER, and a very common blemish, is that called SQUINTING, which is sometimes contracted by very young infants, and may then frequently be remedied, especially if confined to one eye ; but if a child be born with this deformity, or it be consequent to fits, it is not so likely to be removed. The means I have to recommend are, indeed, very simple. A very important one, however, is to apply a piece of sticking-plaster spread on some bright-coloured silk, in such a position, either on the temple, or the nose, conformably to the side on which the eye is distorted, as may draw it the contrary way. In order to keep up this attraction, the colour of the silk ought to be varied from time to time, as well as its situation, placing it a little higher, or lower, both for the sake of change, that the skin may not be fretted, as well as to answer any other end, that a due observation on its effects may point out. Besides this, the child ought always to be placed with that side towards the light from which the eye is distorted ; and for the like reason, its parents, nurse, play-things, and every other object that can attract its notice, should as constantly as possible be on the same side ; that the child may have every inducement its age and circumstances will allow, to draw the eye the right way, and by early habit, counteract a muscular action that is not yet become permanent.

Another method more proper for older children, is covering the eyes with ogles, which are glasses fixed in a little case, such as many people wear when they ride on horse-back. They must be so placed, that the child can see no object but by turning the eyes to the sides from which they are distorted. Or, an opaque covering of a

which they are distorted. Or, an opake covering of a similar form may be worn, with only a very small aperture in the centre, by which the child will be obliged to look strait forward. It is scarcely necessary to add, that these contrivances must be worn constantly, till the bad habit shall be overcome.

Where the cast is confined to one eye, it may be adviseable to cover the other ; whereby the infant will in a little time acquire the habit of directing the affected one more properly. After this, the sound eye should be gradually uncovered, so as to admit the light by degrees. The child will by this means be assisted in directing both eyes properly to the same object.

To this end likewise, such children may be made to look at their own eyes in a mirror for a few minutes, several times in a day ; but with the precaution that each eye be directed to that which corresponds with it in the glass ; contriving, somewise, to render this remedy a kind of amusement. I shall only add on this head, that children who are inclined to squint ought not to be exposed to a very strong light, nor be taught to read while very young.

Infants are liable, indeed, to numberless blemishes ; but as I mean to treat only of such as call for medical attention, and admit of some remedy, I shall mention only two or three more, which are very common, and with them close what I have to say on their Complaints.

VARI and VALGI.

THESE are distortions of the feet, and differ only with respect to the side to which the foot is turned ; in the former, the soles of the feet being turned inwards, and in the latter, outwards ; the curative intention is therefore alike in both. The complaint is sometimes very trifling,

and seems to have been owing to some cramped position of the feet in the womb; and in that case, disappears before the end of the month. In other instances, there is evidently a contraction, if not shortening of the tendons, which calls for considerable attention. The remedy, however, is obvious enough, and frequently consists only in the proper application of a roller and pasteboard splints, so as gradually to bring the foot to its natural position, and in proportion as it inclines thereto, increasing the force and tightening the roller, every two or three days.

There is also another very common distortion of the feet, in which they are turned upward towards the instep: but the mode of treatment is alike in them all, and the cure will usually be effected in a reasonable time.—The like easy means, therefore, will generally be sufficient to remedy a contraction of the joints of the fingers, and various awkward positions of the toes, with which some infants come into the world.

All these complaints may, nevertheless, be sometimes more considerable; and in such case, especially if neglected for many months, or even years, as they sometimes are, require the assistance of some steel instrument, or irons, (as they are called) which are properly contrived for these and other distortions, as of the knees, &c. by *Messrs. Bowley, Sheldrake*, and other truss makers; who seldom fail of bringing the parts into a more natural form, even in the worst cases, whenever parents may think the complaint worthy of the time and attention that may be required. But a contrivance less troublesome, and suitable to families residing in the country, is, a shoe made of tin, lined with leather, and well adapted to the leg and foot, and properly secured by strings.

OTHER imperfections might be noticed, either remediable by obvious means, to be adapted according to circumstances, by the person attending ; or such as happily remedied themselves in a little time. Among the former, I shall, however, mention one that occurred lately, which being new to other gentlemen who were consulted as well as myself, its favourable termination afforded peculiar satisfaction.

The subject of this, besides a slight degree of *varus* in one foot, had a contraction of the leg and thigh on that side ; so that the heel and foot were drawn back towards the bottom, and the knees pulled up to the belly. In this position the infant seemed to be easy, but to suffer great pain when the limbs were *forced* into the same extended position with others : for it never stretched them out itself for upwards of three weeks. Oily embrocations, a blister, leeches, and the warm-bath were had recourse to, of which the two latter were probably the most useful ; but it was not till they had been several times employed, that the infant was observed to straiten the limbs, and at first only now and then ; but a few days afterwards, it moved them as freely as the others.

As a matter of curiosity and novelty, I shall close this part of my subject with briefly noticing certain peculiarities respecting the eyes and hair ; (some of which have likewise been laid to the charge of the *imagination*.) The latter sometimes changes more than once to opposite colours : hair, for instance, of an unusually bright colour, has at the age of three or four years, changed in a short time to a very dark brown, and the child in consequence

not been recognised by those who had not seen it for several months. I have seen as great an alteration take place in the opposite way, and in one family in all the children; the hair from a very dark brown becoming exceedingly light, and in one of them *very white* while under two years of age. And the mother of these children was herself born with very dark hair, which when she was about five years old, became very white, and is now again changed to full as dark a colour as at her birth. Accounts of a similar change in the colour of the eyes, are, I believe, not well founded; at least I have never noticed it myself, nor heard of any such change upon good authority; though the eyes of infants have been thought to become a little darker than they were conceived to be at the birth. But there are instances of infants born with the eyes of different colours, as well as the hair on the head; and in both the colour is permanent. Sometimes, only one lock of hair has varied from the rest; but I have seen two instances of the one half being red, (as it is termed) and the other half, in one instance, black, and in the other, white. In the latter, the white part was exceedingly bright, soft and of a silky texture, unlike that of hair, but feeling like undressed, or raw silk, and no wise differing from that of the *Albino*;* of which likewise, I

* As a matter of the like curiosity may be added a brief account of the *Albino* itself, though, probably not unknown to many readers.

This name is given by the *Italians* to children whose heads are covered with a peculiar white hair of a very soft texture; not uncommonly met with about the *Italian* side of the *Alps*, and likewise in *Switzerland*.

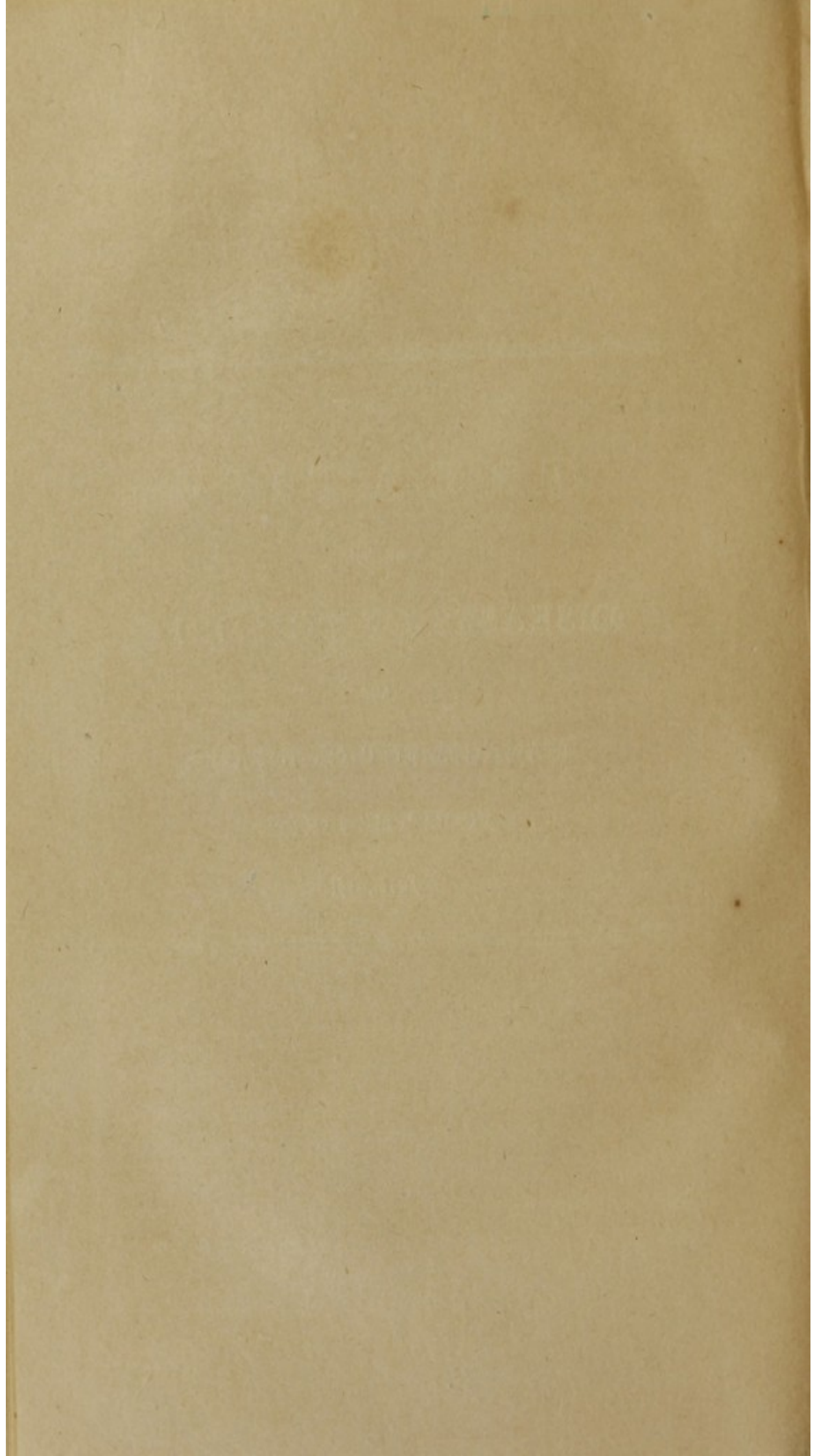
The hair is whiter than that of any old people, or of any quadruped, as well as much softer; it, indeed, resembles silk more than hair, and retains this texture through life. What is further remarkable is, that all children born with this kind of hair have eyes of as singular a colour, that is, a pale red, or pink, which extends as well to what is termed the

have known two instances in this country, and children of the same parents ; who had, the one, brown, and the other, black hair.

sight, (or that spot which is in other people always black,) as to the variegated circle around it. It may be remarked, by way of analogy, that some quadrupeds amongst us, of a breed originally foreign, whose hair is perfectly white, have always eyes either of a fine blue, or of a pink colour ; but in the *Albino* they are always reddish, which like the hair, is subject to no change.

The END of the DISEASES.

A
T R E A T I S E
ON THE
DISEASES OF CHILDREN,
AND
MANAGEMENT OF INFANTS
FROM THE BIRTH.
VOL. III.



P R E F A C E.

W HATEVER Splendour the actual Treatment of Diseases may reflect on the Science of Medicine, it, by no means, comprehends the whole of its Province : For prevention being in every case preferable to Remedies, the medical Art would be more imperfect than other Sciences, were it devoted only to the latter. In the management of Infants more especially, such a variety of other articles occurs subject to medical direction, that this little work would be peculiarly incomplete if confined merely to the Cure of Disorders. In a view, therefore, to such miscellaneous matters, and certain recurring affections too trifling to be ranked as Diseases, this volume is annexed ; and it is hoped, may contain every thing on which the most vigilant Parent can wish for information, without tiring her by enlarging upon trifles. In all matters of importance a becoming firmness has been adopted, but I have

not equally insisted upon others, wherein the Manners of a refined age cannot comply, nor have urged any peculiar modes which the Generality may not adopt. Should any opinion be more obstinately maintained, it is, probably, in relation to the Aliment most adapted to new-born Infants ; an article frequently alluded to in the following pages. In a view to this, an *Introduction* is given on the *Nature* and *Properties* of *Human-milk*, as more especially connected with the subject of this volume ; which, it is hoped, will exhibit a Plan as rational in design, as the author is led to believe it has been successful in its Application.

INTRODUCTION.

ON
THE PROPERTIES
OF
HUMAN-MILK.

IF facts are the basis of sound reasoning, and the source of improvements in science, they will be assiduously cultivated by every investigator of the laws of nature; persuaded that, howsoever misapplied for a season, they must eventually confirm his maxims or correct his mistakes. In this persuasion, the author's attention has been repeatedly awakened by various publications, but especially by some observations of DR. CLARKE of *Dublin*, upon *Human-milk*, which appeared in the Transactions of the Royal *Irish* Academy, for the year 1786.*

Such a subject, while it arrests the speculation of the natural philosopher, will further claim the physician's attention in regard to the influence which the diet of infants must ever have on their health, especially that nourishment which Nature herself hath, in every climate, pro-

* Observations on the Properties commonly attributed to *Human-milk*; on the changes it undergoes in Digestion, and the Diseases supposed to originate from this Source in Infancy.

vided for them, at their birth. For it is only from a due acquaintance with this, that Art is likely to supply the fittest substitute when the natural cannot be procured. Nor can the inquiry be deemed superfluous in a treatise embracing both the means of Prevention and Cure of their Diseases, nor form an improper Introduction to this volume. And it being Dr. CLARKE's express design to dispute not only some of the supposed constituent parts and properties of *breast-milk*, and especially that of any true *curdy* principle ; but also various ill-effects conceived to be produced by it in sucking infants, with the customary means of relief ; it is the more necessary that some notice should be taken of that work. Indeed, the spirit of inquiry manifested in the Essay is truly laudable, and the experiments set on foot are worthy the notice of every practitioner in medicine ; not to add, that the establishment of the fact, whatever it may be, is likely to become of general use, though practitioners, it is presumed, will not readily agree with Dr. CLARKE in regard to the extent to which he carries his sentiment, any more than in all the inferences he would draw from it.

Indeed, when his Observations fell in my way, I was, from the first, not a little surprised at the confidence with which he opposed a sentiment almost universally adopted ; and I determined assiduously to investigate the matter for myself.* For this, I knew I had opportunities equal to

* Dr. RUTTY, indeed, made the like experiments in the year 1762, and Professor YOUNG since, though with a less decided opinion, from similar results: and it is presumed, that the experiments made in consequence of the present inquiry, have set this matter in its true and proper light.

How to account for the difference of Opinion from the same experiments, or for their seemingly different results, consistently with the honour of those who profess to have made and reported them, with equal attention and integrity, may be less difficult, perhaps, than might be ima-

those of Dr. CLARKE, and I pleased myself with the idea of being, at any rate, a certain gainer ; as I should, at least, get at a Fact, which must in the result be favourable to my general pursuits. I must acknowledge, that I was inclined to suspect the Doctor had been mistaken altogether, until repeated experiments, by various means, and under a variety of circumstances, convinced me, that there is certainly much less curd in *human-milk* than has been commonly supposed ; and that whatever the precise quantity might be, it is not very easily detected by runnets and acids ; since in far the greater number of experiments made upon *fresh* milk, not the least could be perceived ; though in a few I seemed to be satisfied at the time, that there was a small portion of true curd, as hath been asserted by different writers.

SURPRISED as I, indeed, was at the first result of these experiments, threatening the subversion of an opinion entertained for ages, and which howsoever unfounded, had been but little suspected ; no sooner did the essence of the fact appear to be established, by demonstrating the *paucity* of *true curd*, than my wonder not only ceased, but I conceived there was every reason to imagine that *human-milk* should be very much of the nature Dr. CLARKE had supposed ; though he should over-rate the result of his experiments, or his inferences be unfounded ; as I have since proved to be the case. It may be suspected,

argued. In regard to the principal point in debate however, I conceive, that some gentlemen have taken certain congelations for true curd, without putting them to the proper test ; whilst others, from the like neglect, have overlooked small portions of it, which have been blended with other matters ; but especially have too much neglected one obvious, though less common mode of discovering it ; or in the few experiments they may have made in that way, have not allowed sufficient time for the curd to form ; as will hereafter appear.

indeed, that a partiality for a mode of practice that myself and many others had long taken up, might naturally render me anxious to support it at any rate, and to accommodate every fact to my prejudices. However this may be, I found that the attempt in the present instance, required very little pains or application, and terminated in the perfect satisfaction of my own mind; since the like stubborn things (which are met with every day in the treatment of infants) cannot be accounted for but in the way I have all a long done; and must evidently demonstrate the existence of an *acid* in the first-passages of infants, of what *nature* soever the food may be on which they are supported. How this attempt was executed is now of very little importance to lay before the reader, since the mode and number of experiments I have since made on *human-milk*, prove to a demonstration the constant presence of *curdy* or true cheesy principles, and must therefore totally subvert the principal arguments and inferences of Dr. CLARKE, were they much more specious than they are. I shall therefore enter no further into such arguments wherewith a long experience has furnished me, respecting the tendency to *acidity* in the first-passages of infants (which became so necessary upon the supposition of there being *no* curdy principles in *human-milk*,) than the acknowledged *small* proportion of true curd may seem to demand; though, (as above hinted) these may be sufficient to prove the point, were there even no curd at all to be discovered in *human-milk*. The smallness of its proportion, however, with the resistance it offers to acids, as justly stated by Dr. CLARKE, is still in my opinion as agreeable to reason, as the experiments upon which the sentiment is founded appear to be conclusive.

MANKIND, during infancy, is certainly amongst the most feeble of all animals that are nourished in the like mode by the parent, and is liable to more complaints, especially to disorders of the first-passages. It is reasonable, therefore, to conceive, that his aliment should be of the most easy digestion, light, thin, and very nutritious ; at once affording as little labour to the stomach as possible, and easily convertible into chyle, and pure blood. We accordingly find *human-milk*, though very thin, exceedingly nutritious, owing to the great proportion of the fat or buttery part, and of a saccharine whey, with which it abounds. It is also easier of digestion than other milks, owing to the smaller quantity of curd it contains ; which, while it is less nutritious than the other parts, is also much more difficultly digested, or converted into chyle, or the basis of the blood. And this I am now persuaded is really the case ; *human-milk* certainly contains less curd than other milks ; and the public is much indebted to the researches of Dr. CLARKE, as far as they may have led to the establishment of this fact : but let us be careful that we do not draw as unjust inferences from truth, as have been supposed to arise from error.*

For does it follow, that if a theory be somewhat erroneous, our practice must necessarily be wrong ? I think not ; and is demonstrable, indeed, from the change of theories in every age, whilst the practice in various instances has continued the same, and been attended with success : being persuaded also that experience, and the closest attention to facts, will confirm the general mode

* I am sorry to find Dr. CLARKE expressing a suspicion that his opinion may not be readily embraced by other physicians. There are, doubtless, many who are glad to collect facts from any quarter, and to entertain truth in every form ; and such will always be open to every well supported inference from them.

of practice enforced throughout this work, and in some part before recommended by HARRIS and his followers.— Let us, however, consider the arguments and inferences alleged by Dr. CLARKE against the hypothesis of a prevailing acidity in infants, and noxious coagulation of the milk,* which writers on their complaints have uniformly established; and contrary to Dr. CLARKE, conceive to be a principal source of their complaints.

Not that they attribute almost all the diseases and fatality amongst infants to that source *alone*, as Dr. CLARKE has imagined; who does not allow due weight to other co-operative circumstances they mention, considering them merely as predisponent causes; particularly the extreme delicacy of their frame. For it is certainly through this extreme delicacy, that infants sink under complaints, which to adults are often little more than inconveniences, and prove in some respects an advantage, by exempting those of a delicate habit from the more dangerous disorders incident to the robust.†

The atony, or feebleness, of infants, therefore, whilst it is a predisponent cause proves likewise an occasion of the severity of their complaints, and of the great fatality attending them; and this fatality arises from disorders of the

* By the term coagulation or curdy matters, made use of in this and other places, it is not meant to assert, that the milk always separates into proper curd; it having been granted, that although it certainly does contain true curd, it is not so readily separated by acids as the curd of quadrupeds is; but as human-milk abounds with an oily or buttery part, it is disposed to jelly or coagulate into a pretty firm mass offensive to an infant's stomach. And this kind of coagulation also takes place out of the stomach, from an admixture of an acid with human-milk, equally as with ~~h~~OWS.

† *Those who abound with acidity are not subject to inflammatory complaints, says HIPPOCRATES.*

stomach and alimentary canal : for how very few infants die in the first months, in whom these parts are not, both at *first and last*, the evident seat of disease ; and with what difficulty are many others preserved from similar complaints, especially children brought up by hand ?

HAVING premised these things, and illustrated the nature of the debate, let us proceed to the particulars stated by Dr. CLARKE ; who having pursued this important subject at some length, and given his arguments every due advantage, I beg leave to bespeak the reader's pardon, if in following him through it, I should seem diffuse, if not tautological, in purposely stating diversified views of facts, in order more clearly to exhibit their decided result.

tant

THE first Observation of Dr. CLARKE that I shall notice, regards the fact in question, and upon which he grounds his objections both to the concurrent sentiment and practice of writers on the diseases of infants.

“ Women's milk (says Dr. CLARKE) in an healthy state, contains no coagulable, mucilaginous, or cheesy principles, or that it contains so very little as not to admit of sensible proof.”

Coagulating principles, unless that term be used in a very precise and limited sense, every nurse must have frequently observed, at least in their effect ; since large flakes frequently appear in the matters thrown up from the stomach of unhealthy infants. Whether these congelations be owing to some small portions of *curd*, or *cheesy* principle which the milk certainly contains, (which may possibly be too small to account for their frequency and quantity ;) or to an oil, fat, or butter, is not of importance to the fact. For *human-milk* certainly contains a much larger proportion of cream, or fat, than cow's milk does, as is evident both from the natural, as well as an artificial separation of it by

different kinds of acids ; and from whence result certain *coagulations*. And perhaps this, as I shall have occasion to remark, might serve to account for the symptoms of acidity, and the rancid and acid matter so prevalent in infants, and for the various effects of absorbent, alkaline, and lightly cordial remedies, without a reference to any *true curdy principles* in *human-milk* ; which it is presumed, however, Dr. CLARKE in this place precisely intends.

I proceed, therefore, to observe, that the assertion of Dr. CLARKE as to this great point in question, is, in no view, strictly just ; since it is insisted, that there certainly is a portion of *true curd* in *human-milk* ; which as Dr. YOUNG has remarked, separates *spontaneously*. Dr. CLARKE in his remark upon this observation, I know not why, concludes that it is stated by Dr. YOUNG merely as “matter of opinion, and not the result of any experiment.” Nothing further, however, is necessary than *to make it*, and to wait a sufficient time for the result ; no particular degree of heat being necessary, in any of the various experiments I have made, though so stated by Dr. YOUNG. But whence it is, that runnets, acids, and spirits do not always separate any very sensible quantity of this curd in the course of eight and forty hours, as they constantly do from cow’s milk ; and wherefore a much longer time seems to be necessary for its *spontaneous* separation, I am not chymist enough to offer any opinion, and therefore confine myself to the fact : observing, however, that this peculiarity is, doubtless, to answer some wise purpose ; and very probably, may be a principal reason of women’s-milk agreeing so much better with infants, than the milk of every other animal ; and it is hoped, may in time furnish some very useful practical observations.

Dr. CLARKE's next observation relates to the time, in which human-milk becomes sour : upon which he remarks thus :

“ If we find *human-milk* out of the body so very slow in running into an acescent state, does it not afford strong presumptive evidence, that the milk of nurses cannot be so very prone to run into acidity in the stomach of infants as authors endeavour to persuade us ?”

To this it may be replied, that though human-milk, out of the body, does not, indeed, run into an acescent state so soon as cows-milk does, (and for the establishment of this fact also, we are much indebted to Dr. CLARKE ;) yet I think, that *Experience*, (which must be allowed to be full as good evidence as any *Experiments* can be) as fully demonstrates, that like many other milks, and most vegetables, it is much more disposed to occasion acidity in the stomach, than food prepared from pure animal juices. Moreover, it is not usually so slow in acquiring an evident acidity, even out of the body, as might be conceived from some of the experiments Dr. CLARKE has industriously made, and I doubt not as fairly reported ; for at the end of four days, and even sooner, I have sometimes met with it full as sour to the taste as cows-milk, kept the same length of time ; though this is not usually the case ;* and when become putrid (by that test) which I have known it to be in ten days, it has been equally so with cows-milk.† And

* Dr. CLARKE also takes notice of a *variety* in this respect.

† It is worthy of remark, that so far from *human-milk* being usually indisposed to be much changed by long keeping, as Dr. CLARKE has observed ; it has not only always become putrid before I have thrown it away ; but that about three quarters of a pint which I kept at the hospital, only a fortnight, for the purpose of collecting the curd by a spontaneous sep-

surely it is not imagined, that human, or any other milk, remains on the stomach long enough to become acid from that spontaneous separation of parts which takes place in the dairy ; and therefore the question is not so much, in what *time* it will become so, as to what *degree*, or by what *means*, this change may be effected : and in these respects, it is found to differ little from the milk of quadrupeds. For though runnet does not always separate true curd in any sensible quantity from breast-milk, *out* of the body ; yet not only will it render human-milk as acid as it doth cows-milk, but true curd also being found in the pukings of sucking infants when most vexed with acidity, seems to demonstrate the *means* of its separation, as well as the *fact* and *degree*.

Dr. CLARKE, indeed, speaks of human-milk kept in a phial for more than two years, at the end of which time it was only become moderately acid ; whereas I have often found it very sour, according to his own criteria with *chemically* stained-paper, in four or five days ; so that one would be led to suspect, that like putrid waters, the milk must have depurated itself by some kind of fermentation. And though it was rather ludicrously that this idea first occurred to my mind, I have been since disposed to think, that both human and other milks, when preserved from the air, are capable of such changes ; having observed both women's and cows-milk, at the end of many weeks, become entirely without taste or odour.* The latter kept

aration, had rendered the room, for more than a week, sensibly offensive to every one who entered it ; but was so very fetid when I strained it off, that the matron who assisted me, being less accustomed to putrid effluvia than I have been, was disgusted by it exceedingly.

* In further vindication of the above sentiments, the author may, at least, offer the following statement ; for the accuracy of which the reader's

on my mantle-piece, over a large fire, has not been fetid at the end of five days, and was by no means more offensively acid to the taste, than I have known human-milk become in four days. And it is further worthy of remark,

implicit credit is requested. It respects several portions of *human* and *cow's*-milk, with observations on their changes taken precisely as dated below.

On one portion, preserved in a phial, and well corked, it is noted—

Human-milk, procured, Nov. 22, 1790.

Nov. 25, Now, rather tart to the *taste*.

26, very sour.

27, not fetid to the *taste*.

28, *smells* very fetid.

29, fetid *taste*.

1791, Jan. 1, *very* fetid, now.

I examined this milk in March, 1795, (not having noticed it before for near a twelvemonth;) and found it turned of a dirty brown colour, and *smelling* exceedingly *fetid*.

Another portion of *human*-milk, procured within a few days of the above-mentioned, and preserved in a phial, no better corked, did not at this time *smell* at all *fetid*, nor disagreeably *acid*, although it had so *smelt* and *tasted*, a long time before; was not changed in its colour like the former, but seemed merely to have undergone the natural separation into curd and whey.

IN November, 1797, while this work was in the press, I carefully examined these two portions of milk, and found them in no wise changed since the examination of them in March, 1795.

(While this *second* edition was under correction, I examined these portions again, and could be sensible of no change; though they had then been in the phials ten years.)

A PORTION of *cow's*-milk drawn a month after the first-mentioned, I found at this time (March, 1795) changed exactly in like manner in its colour, and decidedly more offensively *fetid* in *smell*.

(This portion on the 11th Nov. 1797, was still most decidedly more offensively *fetid* in *smell* than the *human*-milk.)

Human-milk drawn a few days after the *cow's*, was at the same time found preserving its colour, having only separated into curd and whey, and without the least *acid*, or *putrid smell*, and having no more *acid taste* than *cow's*-milk drawn in summer usually has on the second day; nor was there

that out of several parcels of human-milk, preserved under precisely similar circumstances, some became very sour and even putrid to the taste, several days before the others seemed to be at all changed. And as this variety occurred under repeated experiments, it may assist in accounting both for the frequency of bowel-complaints in some sucking infants which other children are free from, and for the frequent good or bad effects of a change of milk, whether occasional or more permanent : and has not every physician of experience seen infants frequently thrown into tormina, or severe gripings, immediately after coming from the breast of an unhealthy mother, or one who has but little milk ?

IN regard to the *means* by which this acescency may be produced, we know very well, how very small a portion of the prepared calf's stomach is requisite for making sufficient runnet to separate the curd from a large quantity of milk, and communicate acescency to the whey ; and is it at all improbable, that the infantile gastric (or stomach) juices, assisted by the natural action of the stomach, by surrounding and mixing with the milk in every point, may operate much more powerfully upon it, and dispose it to become so sour and curdy,* as to offend that organ, if it should not *soon* pass into the intestines ? which it is presumed it ought always to do. Moreover, acidity seems to

any noise nor fermentation to be perceived from hastily drawing out the cork, as there was from both the *human* and *cow's*-milks which had changed their colour.

ON Nov. 11, 1797, this portion also continued in the state above described.

(It was no wise changed, when examined again before the *present* edition went to press.)

* It is elsewhere observed, that the separation of the curd from the whey is the natural process of digestion.

be one of the states into which all animal and vegetable substances naturally, or very frequently run,* in the course of digestion or fermentation, equally constantly with that putridity or feter which precedes their dissolution, or separation into first principles; and therefore in a certain degree, probably ought to take place in the stomach, or small intestines, as the feter does in the lower bowels. The latter is never so great in infants as it is in older subjects, though adults should for a time live only on vegetable or milk diet. A principal reason, probably, is, that the bile is weaker in infants; but being at the same time a less powerful corrector of acidity, it is likely, they may be, on that account, more disposed to the latter; and, probably, *ought* to be. Nor can I see, wherefore that very apparent evidence of an abundant acidity in the first-passages of infants, arising from the very sour smell, and curdy appearance of both the vomitings and stools of many infants, and the *uniform relief* afforded them by a proper use of their known correctors, *absorbent* and *alkaline* remedies, should not have much more weight in the argument, than can be brought against it from *experiments* made on human-milk, *out* of the body, and its acknowledged indisposedness to turn sour so soon as cows-milk; for we know, with what extreme caution we ought to apply both chemical and physiological experiments to the explanation of the circumstances of diseases. Not to insist again in this place upon the idea already suggested, that breast-milk is not supposed to remain long enough on the stomach to separate into

* Perhaps this may not be the proper and natural course of digestion, as Dr. GEORGE FORDYCE has taken great pains to demonstrate; yet are the first-passages in most people so disposed at times, that through indigestion, acid matters are very commonly formed. And it is worthy of remark, that the late Mr. JOHN HUNTER always found the gastric, or stomach juices lightly acid in every healthy animal that he examined.

curd spontaneously, in the manner of cows-milk kept in a dairy; it is sufficient to advert to facts; both the smell and curdy appearance mentioned above, and the relief afforded by medicine, being exactly alike in all indisposed *sucking-infants*, as in children who are brought up *by hand*, although the latter are, indeed, more frequently afflicted with such bowel complaints. The great difficulty also of adapting food to infants brought up by hand; and the frequent recurrence of all the ordinary symptoms of indigestion, with the relief frequently afforded them by the substitution of broths for cows-milk; may serve to confirm the idea of a disposition in the first-passages to generate wind and acidity in the digestion of their food, and to coagulate every kind of aliment capable of coagulation by the stomach juices, especially if not in their most natural, or healthy state.

BUT as so much of Dr. CLARKE's argument turns upon there being very little, or *no curd* in human-milk, it may be asked, is it, indeed, *a well ascertained fact*, that the flaky matters brought off the stomach of infants nourished by *cows-milk*, is usually *proper curd*, any more than that ejected by children nourished at *the breast*? for it is possible it may be the fat, or buttery part, or only a very small portion of proper curd, in the one case as well as the other: and if so, the whole force of the Doctor's arguments, and his consequent objections to the popular plan of treatment (as he terms it) may, possibly, fall to the ground; for the *symptoms, complaints, and remedies*, in both cases, it has been said, are the same, and are well accounted for by a supposed prevalent acidity in the first-passages, and a proneness of their contents to be in some sort, curdled by it.* Of the generation of an *acid*

* That the acid of the stomach is capable of forming *proper curd* I have no doubt, having noticed it frequently, and sometimes in large portions.

- * in the stomach, however, I have incontestible proofs in several instances, in the pukings of infants nourished only by *breast-milk*, which changed blue-paper red, upon being applied to it the moment they were brought off the stomach.

For the like certain detection of *true curd*, I endeavoured for some time together to make experiments at the hospital, upon the pukings of infants nourished only at the breast ; but either the nurses there did not attend sufficiently to it, or the quantity they could preserve was always too small, or too much blended with other matters to ascertain, with precision, whether they contained any true curd or not. But since that time an opportunity presented in private practice, in an infant who I was well assured was nourished only by the breast. Having sucked very plentifully, the child became sick, and throwing up a mouthful of strong curd, I took up a lump of it, about the size of a nutmeg, which adhered together firmly, and was pretty free from other matters ; leaving behind in the basin a larger quantity divided into small portions, and too much entangled with a viscid phlegm to answer my purpose. The portion I took out, together with some slimy matter adhering to it, weighed twenty grains ; and when separated from every thing that could be squeezed from it, or evaporated by heat, exhibited one grain of hard, caseous matter, which exposed to the flame of a candle, burned, and smelt like coarse cheese ; but being before divested of all its oil or butter, was, like bad cheese, incapable of being melted. And according to similar experiments made upon human-curd, dried in dif-

And, indeed, I have one of these still by me, preserved in spirits, of above an inch in length, and half an inch in thickness, which was many years ago puked up by an infant I was attending ; but whether the child was brought up by hand, or not, I do not now at all recollect.

ferent degrees, I imagine that the above-mentioned portion, previous to its being reduced to the consistence of hard cheese, might contain six or eight grains of soft curd.

I THINK this may be considered as a decisive proof, that the gastric (or stomach) juice can separate curd from breast-milk in the stomach of infants ; and I believe is no uncommon thing ;* nor was it long before I met with another instance equally satisfactory. This infant at eight months old was attacked with severe cough and feverish symptoms, which were at that time epidemic among children ; and several times threw up curdy matters soon after taking the breast, which was its only nourishment. The nurse twice preserved the cloth upon which they had been received, from which I scraped them, and after properly pressing and drying them, I found, that about the one third part turned out to be pure cheese-like matter, burning in a candle, and insoluble like the former ; and in this hard and dry form, weighed a grain and a half.†

* By this I mean, as I have elsewhere remarked, that in the ordinary course of digestion, the thicker parts are always separated from the whey ; but as breast-milk abounds with oil or butter, the viscid matters thrown up often appear more like clotted-cream than true curd : nevertheless, either from the milk remaining for an undue time in the stomach ; or from an excess of acidity : or perhaps other circumstances concerned in digestion not always known to us, the separation of the component parts sometimes becomes more complete, and *true curd* appears. How far this may be owing to infants being in an ill-state of health, to fever in particular ; or simply to weak digestive powers, and a depraved state of the gastric, or digesting juice, time and attention to their complaints may possibly discover : but at present I am inclined to think, that the gastric juices, (which are at all times lightly acid,) always possess this property, as they certainly do of separating the curdy part of *cows*-milk, if it happen to stay a sufficient time on the stomach. This we also know to be the case with many adults, whose digestion is weak.

† My reason for evaporating the curdy matter so completely, by exposure to a strong heat, was to demonstrate beyond all ground of doubt,

Now, if by the above, and other arguments* and facts, it should appear, that human-milk, from whatever cause, does actually become both sour and curdy, in different ways, and that infants are frequently injured by it ; the less disposed thereto it may naturally be, the more we may, indeed, be led to admire the wisdom of Providence, that Women's milk should, in that respect, differ from the milk of many other animals ; yet mere presumptive evidence against its *frequently* turning sour, in the stomach of infants, cannot invalidate the fact that it really doth so *at times*, and may, possibly, much oftener than is discovered, or suspected.

DR. CLARKE himself, indeed, seems to be aware that there may be reasons for such a supposition, and therefore says ;

“ In the adult state, we know that there are few morbid causes less noxious to the human body than acidity, and few more subject to the controul of medicine.”

THIS position, though in a certain sense, a very fair one, is not wholly so, when taken with all the inferences which DR. CLARKE would deduce from it : for if the acidity be very great, and the cause permanent, (as is sometimes the case ;) though alkalis* may be administered in sufficient quantity to neutralize the acid, the acidity returns again, and prevails even for years, in spite of the use of every kind of alkali, as well as of columba-root, bark, steel and other tonics ; unless the state of the stomach be changed by them, and the digestive powers strengthened. In-

that it contained *true curd*, by bringing it to the state of the coarsest sort of cheese, in which there is little, or no oil or butter.

* Medicines of an opposite nature to acids, such as chalk, water of kali, salt of wormwood, prepared natron, testaceous powders, and other absorbents ; which ferment with an acid.

digestion naturally produces acidity, and is increased by it, as we see in many pregnant women, and in different affections of the stomach, particularly when it is diseased in a *morbid* way.—A gentleman who died of a schirrus in the stomach, was tormented for the last six months of his life, with an incessant acidity ; which, though often relieved, especially at the beginning, by magnesia, water of kali, prepared natron, and other similar remedies, was never for one hour entirely removed ; so that he spat up acid matters all the day long, and died after a very tedious illness, perfectly emaciated, though he took a sufficient quantity of food of different kinds.

DR. CLARKE goes on to make further concessions.

“ But granting (says he) such acidity to prevail in infants, we are in possession of many harmless medicines (called absorbents)* capable of neutralizing acids, and thus forming *innocent compounds*.”

WE have, indeed, many *useful* remedies in such cases, but none that will *certainly* remove the complaint, either in infants or adults, until the state of the stomach be rectified ; which in infants is often effected by time. For, comparatively light as the evils of a disposition to acidity most certainly are, when it is moderate or transient, it becomes even in adults a source of manifold infirmities, when depending upon some *permanent cause*, (though not positively of a *morbid* nature as above stated) which cannot fail occasioning an almost daily return of every troublesome symptom. A viscid phlegm also, instead of a harmless compound, often results from the alkaline remedies and natural acid, (conjoined as they may be with other heterogeneous matter) which though insipid, is very in-

* See the note, page 261.

digestible ; and at other times, a more offensive acrid matter is formed in the stomach of many adults, and is with great difficulty got rid of where the digestion is weak ; and is continually adding to the complaint. Every practitioner, and, indeed, many of my readers, must have met with such cases ; and from one more immediately under my eye, whereby I was for a long time witness to the effects of an atonic, or tender state of the stomach, I can speak very confidently to this point. This patient was of a spare, and delicate habit, very sober, and remarkably free from almost every complaint, but those arising immediately from a weak stomach. This sensible organ, however, was easily put out of order, especially by vegetables, milk, and similar things disposed to generate wind or acescency in their digestion, and was at such times loaded with acidity ; which though often corrected by alkalis and absorbents, the stomach would, at other times, eject matters in so very acrid a state as would instantly render the back part of the mouth of a deep scarlet hue, produce soreness of the throat, falling of the palate, excessive hoarseness, and some difficulty in swallowing, which would remain for many hours. After long vomiting, a bitter matter would come up, sometimes of a light, at others, of a deep green colour ; but rarely yellow, though evidently bilious. Sometimes, upon taking alkalis and absorbents previously to vomiting, the acid would be neutralized ; at others, no quantity would render the juices bland ; but instead of an acid, a heavy acrid, and most viscid phlegm would be ejected, inflaming or flaying the throat, in the manner just mentioned, and in this state no kind of medicine had any good effect ; though previous to the *acid* matter (the source of the complaint) being changed into this *acrid* state, alkalis and absorbents very

frequently prevented vomiting ; which, however, nothing could do after the contents of the stomach lost their *acidity*, and became *acrid* : so far were they from being usually converted into a *harmless compound*. It was only after being many years tormented in this way, and having daily recourse to alkaline and absorbent remedies, to columba and bark, joined with steel, and other powerful tonics, with exercise and a scrupulous attention to his diet, that he was sensible of any abiding amendment ; though from the great benefit he at length received, by a strict adherence to such a plan, it may be presumed he had no *morbid* affection of the stomach, though that had been often suspected.

Excess of acidity, and an acrid, ropy phlegm are, indeed, the well known attendants on an imperfect digestion, and will recur in many adults, feed on whatever they may ;* though the evil must, doubtless, be increased by certain kinds of aliments ; and of that class are those administered to infants. If adults, therefore, of a similar habit to that just now stated, though in the end often restored to perfect health, may continue for a long time greatly tormented, whilst the most powerful correctors of acidity, and known tonic, or bracing remedies, are had recourse to ; and if improper food be occasionally received

* I conceive, that this habitual acid affords a too great, and improper stimulus to the glands of the stomach, exciting both a superabundant and morbid secretion. By this means, the stomach, or digesting juice, is oftentimes rendered exceedingly viscid, (in the manner of the secretion from the membrane lining the nose, from the stimulus of a cold) or afterwards becomes thus tenaceous from mixing with the acid, and ill-digested contents of the stomach. This seems probable, from the vast quantities of this viscid and acrid matter which, it has been observed, people long vexed with acidity will sometimes throw off the stomach for hours together, and frequently for several successive days.

into the stomach, their complaints will at such times be greatly exasperated ; wherefore should it be supposed, that delicate infants must always be restored, if the breast-milk, as well as other nutriments on which they may feed, be confessedly, to a certain degree, disposed to add to the complaint ? And can it be urged from any experiments made on human-milk ; or will Dr. CLARKE or others affirm, that it is so utterly unlike every other milk, and even so much more ant-acid than animal food ; that it has nothing in it likely to become sour (save in very weakly children) by an admixture with the stomach juice ?

I NOW proceed to Dr. CLARKE's remarks respecting the green colour sometimes observed in infants stools. Dr. CLARKE doubts of the existence of the supposed predominant acid, of which that colour has been imagined to afford some evidence ; because, he says, common acids do not give that tinge to the bile, out of the body, and that only *mineral* acids give it a green colour.

But as *some* kinds of acids can produce this effect, it cannot surely be proved, that the natural acid of the stomach and bowels cannot effect the like ; especially when it is considered, that in adult persons affected with dyspepsia, or a bad digestion, *bitter* matters of a *green* colour are frequently ejected after very acid vomitings, as it has just now been remarked. And although as Dr. CLARKE observes in a quotation from SYDENHAM, "porraceous matters are ejected by children who have been over-purged or vomited, and by healthy adult persons when sea-sick ;" yet the like appearances under such circumstances can scarcely destroy the conclusion ; since all such violent agitations of the first-passages, by disordering and perverting their due and natural action, upon which the healthy state of their secretions indubitably de-

pend, may sufficiently account for the sudden forming of acid, acrid, or any other unnatural and unhealthy stomach juice, as well as for the vomiting up of bile, which in its passage will certainly be mixed with it, and be somewhat changed from its natural colour. And, indeed, SYDENHAM's reasoning upon this subject, a little further on, is of a similar kind, though expressing himself in the language of that day, he attributes this foreign, or morbid secretion, to a confusion of the animal spirits ; which, indeed, for any thing I know, may be a remote cause of it. It should likewise be considered, as of great importance in the argument, that it is during the time that infants appear to be affected by a predominant acid in the first-passages, that the dejections or vomitings are of a green colour. Upon the whole, therefore, the prevalently sour smell of some infant's stools, which Dr. CLARKE thinks so very nugatory an argument, seems to afford much better evidence of the presence of an acid, than his arguments can be against the change of colour by such a mean. Moreover, I may affirm, that the *green* stools of sucking infants, and even some stools that are of a bright *yellow* colour, *do* certainly contain an acid ; having detected it under repeated experiments made with blue paper, the instant the stools have come away ;* however it might turn out in experiments made by Dr. CLARKE. And I may therefore, possibly, be allowed in my turn, to express some surprise at the confident manner in which Dr. CLARKE has taken upon him to dispute the fact.

BUT Dr. CLARKE observes further, that, "Those writers who have laid the greatest stress on such appearances

* These experiments were made before witnesses at the *British Lying-in* hospital.

in infancy, do not pretend to apply the information to be derived from thence to the treatment of the disease of adults."

I, probably, do not fully comprehend the import of this observation; for the information is most certainly applicable, and the complaints of each arising from acidity are capable of cure or relief, in the same way, viz. by alkalis, bitters, and aromatics, with a well adjusted diet. I have intimated, that the doctrine is *partially* applicable, because the bile of adults being more exalted and acrid, or otherwise stronger, (if I may so speak) may not upon meeting with the like acid, change their stools just to the same colour of those of infants; nevertheless, the stools of adult persons, tormented with acidity, especially under peculiar aggravations, are of a much *paler* colour, than those of people of much stronger digestive powers, and probably, through a deficiency of bile. And here it may not be improper to consider the very material circumstance of the very different diet to which adults are addicted, as well as the medicines they may take; which, it is well known, often affect the colour and smell both of the stools and urine in the course of a few hours, as the stools of infants (though ever so green before) are changed in their colour upon taking rhubarb, saffron, and similar medicines;* while the diet of infants being perfectly simple, the contents of the bowels are likely to acquire no other colour than that of a bile itself, (as is actually the case in a healthy child) or such as through their accidental property may be chemically induced by the admixture. Not to add, that the urine in healthy adults is usually of a much deep-

* Spinnage and other things impart their colour to the stools of young children, in a way they do not to healthy adults; and perhaps from their digestive powers being weaker.

er colour than that of infants, and is also not unfrequently occasioned by a certain diet as well as by medicines; and varies with them. And perhaps it may be from a similar natural tendency to a very *dark* colour, that we find the first stools of new-born infants are not truly green, though often of a *greenish-black*; nevertheless, there is sufficient acidity in their stomach juices to occasion the stools voided previous to infants taking any kind of food, to tinge blue paper red, (as I have found by careful experiments) although such stools contain a very large proportion of bile.

These observations, it is imagined, may apply to Dr. CLARKE's remarks in regard to the colour of the stools of adult persons, vexed with acidity; which he says are not of a green colour like those of infants. And in respect to ejections from the stomach, when so tinged, it seems to have been a constant remark, that bile lodged there has been diluted by an acid; to both of which, physicians are in the habit of administering their appropriate remedies.

DOCTOR CLARKE goes on to say,

"Upon the whole, I hope it will appear probable to the generality of readers, that predominant acidity in the first-passages, is by no means so general, as to be considered as the only, or even principal source of infantile disorders; that such a morbid cause may now and then occur in infancy, as in adult age, from a weakness of the stomach, costiveness, or improper food, can admit of no doubt."

THIS inference is surely far from being made out from all that has been advanced—but let us consider of what the arguments consist. "Human-milk out of the body, does not turn acid so soon as cows-milk does;" (but cows-milk requires twenty-four hours or more; a much longer time than the milk remains in the stomach;) "nor the common acids curdling the milk of quadrupeds produce

scarce any sensible curd from human-milk ; (though the quantity of curd is certainly *greater* than Dr. CLARKE has supposed ;) that only *mineral* acids will tinge the bile of a green colour ; and that in the adult state few morbid causes are less noxious than acidity, or more under the *controul* of medicine ;" (though, it has been proved, but *partially* so.)—To conclude from hence, that acidity in the first-passages ought not to be considered as so general a cause of infantile complaints, or to be of such dangerous consequence as it may usually have been imagined, does not appear to me to be perfectly founded ; much less sufficient to subvert the arguments and evidence adduced in support of that sentiment, in connection with the acknowledged imbecility of infants. The school-maxim, indeed, is true, that *from nothing, nothing can come*—if there be *no* curdy principles in human-milk, no species of acid in the stomach can bring curd out of it ;* yet may the combination of an acid and milk offend the stomach otherwise. It has been observed, that all common vegetables, and even bread, are often very imperfectly digested by adult persons with a stomach overcharged with acidity ; yet is no part of such aliment necessarily converted into any thing like *true curd* ; though the stomach in all such persons is as certainly offended by the *curdling* of cows-milk.

Nevertheless, I have hinted long ago,† that mere acidity may not, in the first instance, or in a general way, be *necessarily* so injurious as some writers have contended ; and that infants suffer more severely from an acrid matter, (less capable of correction by absorbents, than by aromat-

* Though this is not granted, but the contrary has been proved, as noticed further on.

† In the first outlines of the subsequent Tract, in the year 1784.

ics,) which though it originates from a predominant acid, generally becomes so very offensive in conjunction with some other cause, be that a peculiar weakness, or otherwise ; robust children being always far less disordered, though not free from some of the less hurtful symptoms of acidity. Upon the whole, however, I am persuaded, that acidity is *accidentally*, and in fact, a frequent source of mischief, because it is so constant a consequence, and further aggravation, of indigestion, in such adults as have what is called a weak stomach. For it is, perhaps, only in adults of a lax fibre, approaching to the feebleness of infancy, and not in the robust, that we meet with that morbid source which Dr. CLARKE observes sometimes occurs in adult persons. And if the stomach or digestion of infants be naturally weak, why should we not expect to find them peculiarly liable to acidity and its consequences ? the state of the stomach being certainly the grand source of general good, or bad health, at every age. And, indeed, were I to say no more than that infants, in proportion to the greater weakness of their digestion, must be more disposed to acidity than adults, with many of whom a milk diet *always* disagrees, (and is the infant's constant nourishment ;) it were saying a great deal towards subverting the whole that has been advanced by Dr. CLARKE against its prevalency, in connexion with the general debility of all young infants, being a *principal* source of their complaints.*

* SINCE the former edition of this work, and subsequent to two or three letters passing between us, Dr. CLARKE has offered a few observations on some infantile complaints, in the last volume of the *Transactions of the Royal Irish Academy*. All that concerns the present debate, is, an observation on *green stools* voided by an infant he was attending, and a very curious observation it is ; the nurse having informed him, that they became of a *yellow* colour after the cloths had lain some time in a corner of

DR. CLARKE concludes by observing, that "the young of all the ruminant animals, fed on milk of a much more acescent nature, suffer no inconvenience from this source." To such laconic arguments, I think it might be fairly replied, that many ruminant animals can eat, and digest, *bones*; and hop about likewise when their own bones are broken or dislocated, without manifest injury, or much expression of pain. And in this view I might adduce the remark, made elsewhere, on the rank which animals severally hold in the scale of beings: it being very evident, that besides the ground of comparative health and disease arising from the bulk and strength of various animals, there is that of their several ranks in that scale, commencing with man, the head, and extending from the invalua-

the room: and this report the Doctor offers to the consideration of those who conceive the *green* colour to depend upon some *acidity* in the first-passages; which he thinks the above change may render further suspicious.

THAT the stools of infants, not in perfect health, though voided of a bright *yellow* colour, will turn *green* upon being kept twelve, or twenty-four hours, must have been observed by every one conversant with sick children; but I must confess, that I never before have heard of *green* stools turning *yellow*, whatever the infant's complaint may have been. I have now been in the habit of paying attention to children's stools for many years; and in various instances, when not in a *daily* attendance, a great number of cloths have often been preserved, for two or three days, for my inspection; so that, were such a change common, I am persuaded I could not have failed to notice it. What the particular cloths shewn to Dr. CLARKE might meet with "on the floor, in a corner of the room," to account for such a change; or what other unusual occurrence there might be in their previous washing, I can say nothing to; therefore for the present shall only remark, that such important appearances ought to be frequently observed, and substantiated in some better manner than the report of an individual nurse, and on a single occasion, before any argument can be founded on them to subvert the fair inference from innumerable facts.

ble sheep, the cow, or the horse, to the lowest of our domestic animals, and to reptiles ; the more noble and useful (from whatever cause) being, I believe, uniformly subject to the most, and severest disorders. Thus the fragile worm daily survives some kinds of injuries, which the sturdy ox could not ; while the delicate infant would sink under that, which the lamb could with safety endure.—But what should we learn, on the present occasion, by pursuing such comparisons? “Man (said one) is not a fly”—no, nor yet a tyger.—Such arguments, at the best, are very equivocal, and one might be set against another without end. We do not, for instance, suspect that quadrupeds in a state of pregnancy, are tormented with acidity or heart-burn any more than their young are from the curdy principles of the milk by which they are nourished ; but we are certain, that many breeding women are afflicted with such complaints for a great length of time, feed on whatever they may. It is confessed also, that the milk of quadrupeds abounds with cheesy principles, and that human-milk contains a far less proportion ; (or according to our author, none capable of sensible proof :) here then is a glaring disparity in the very point at issue ; and from which the inference drawn by Dr. CLARKE, (were even his experiments conclusive) does not seem more natural, than the observation already advanced on the wisdom of Providence in abating of that quality in human-milk, because a greater propensity to acidity, or excess of cheesy principle, must, from the feebleness of infants, render such a quality peculiarly noxious to them.

It has been observed, however, that I can myself no longer entertain any doubt of the *existence* of this principle in breast-milk, though it may vary in its quantity and consistence ; nor hesitate to insist, that the result of my ex-

periments on human-milk, and infantile green-stools, (which it has been said, *do stain* blue paper, red) completely overturns all that Dr. CLARKE has advanced, to the entire satisfaction of my own mind : but as our contradictory assertions, (as to facts) cannot satisfy those who have not made the like experiments, I have submitted the matter in a way of fair argument, and appeal, to the discernment of the well-informed reader.

SINCE these observations on Dr. CLARKE's Essay were drawn up, I have, however, been able to adduce a testimony which I conceive will not generally be disputed. Had I met with it sooner, it would, probably, have saved me a great deal of trouble : but the *Histoire et Mémoires de la Société Royale de Médecine*, année 1790, might not perhaps have fallen in my way to this day, if my good friend DR. ANDRY of *Paris* had not made me a present of it ; though long after I had completed my experiments on human-milk. It were needless in this place to quote, in detail, the experiments there recorded ; it must be sufficient to give tables of their result,* and to say that they correspond exactly with my own ; referring to the volume itself for an ample account of the modes of investigation, further properties, and component parts of various milks there specified, demonstrated by numberless experiments, and upon multiplied authorities.

To sum up the whole, then, upon Dr. CLARKE's own principles ; and forbearing for the present to insist either upon my own experiments, or others ; it may be fairly urged, that, in disorders of the first-passages, the matters ejected both by vomiting and stools are frequently flaky, and coagulated, and sometimes curdy ; that they have a sensible sour smell ; and that the stools are often of a

* See the annexed Tables.

green colour, very numerous, and attended with griping pains. That these symptoms and complaints are removed by such remedies as are allowed to correct *acidity* in other instances, or are mitigated, in a greater or less degree, as long as such medicines remain in, and are acting on the stomach and bowels, and mixing with their contents. That, moreover, every kind of aliment which during its digestion is alike peculiarly disposed to produce acidity, both in the adult and infant states, always increases the above symptoms ; breast-milk, however, (from a healthy nurse) the peculiar food of infants, being less commonly found hurtful to them, because more thin, and lighter on the stomach than most other food, and having less of that true curd found in most other milks. But whenever human-milk happens to disagree, the symptoms are exactly the same as in infants brought up by hand ; though in other instances, a recourse to it (or even asses-milk) frequently proves a remedy, for children whose bowels have been disordered from being previously nourished by the spoon. And though this fact may, indeed, fairly prove it to be far less disposed to turn curdy and acid than cows-milk, and farinaceous substances ; yet the circumstance of sucking children being often afflicted in precisely the same manner, and relieved by the same medicines with children brought up by hand, equally demonstrates the cause of their complaints to be exactly similar ; and that human-milk, when mixed with the stomach juice, is disposed to turn *acid*, and its component parts to separate improperly, or, perhaps, too hastily, as in adults whose digestion is bad. And that on these accounts, the milk becomes *curdy*, occasioning indigestion and wind, which jointly irritate the nervous coat of the stomach and bowels, and produce complaints that endanger the infant's life, unless remedied

by the known *correctors* of acidity. Nor are these effects, by any means, rare occurrences, or confined to tender and delicate infants, as Dr. CLARKE would insinuate : and on this head I may venture to appeal to his own, and every man's experience, as well as to the mortality in the *Dublin Lying-in hospital*.*

It may be added, that a disposition to these complaints often continues as long as infants remain at the breast, or live on any other milk diet, but are diminished as soon as they take freely of animal food ; and that this change does not depend merely on their more advanced age, but on the alteration of diet, is pretty evident from the like advantages being often obtained by allowing them a little broth, once or more every day, at a much earlier age.

SUCH then are the facts in regard to diet, the discharges from the bowels, and complaints of the first-passages during infancy ; and such are the effects of certain medicines known to correct or abate acidity ; and to what shall they be attributed, or what can be more naturally inferred from these premises, than that there certainly is an acescent tendency in the gastric, or digesting juices of infants, (useful no doubt, upon the whole,) and a quality in *every kind of milk* disposing it to be *curdled* or *coagulated*, and become *acid* by the admixture ? To these observations might be added that of infants being so very rarely attacked with fever, however severe or continued their pains, or other complaints may be ; and though many good reasons might, doubtless, be given for this exemption, yet none can exclude the well known aphorism of the father of physic, before quoted, nor be more appropriate to the occasion than that maxim, "Those who have an acid stomach are not disposed to fever."

* See the *Note* at the close of this *Introduction*.

I have no desire to enter into a formal dispute with any man, much less to contend for mere opinions irrelative to practical truth ; but should any persons be determined to dispute both the inferences and facts I have advanced ; let them, at least, tell us *what* it is that so uniformly acts as an *acid* might be expected to do, *curdling* or *thickening* the contents of the stomach, offending the bowels, producing green and sour-smelling stools, with other symptoms of indigestion recurring so uniformly in delicate infants : effects which nothing could ever be contrived totally to prevent, nor can any thing so uniformly relieve as *ant-acids* or absorbents. May it not justly be presumed to be something not easily distinguished from what we term an *acid* in atonic adults ? How much less injurious, however, this disposition may be, than that tendency to putrescency prevailing in the latter, induced by a very different diet, and a more exalted bile necessary to digest it, may be fairly presumed ; and upon which, it has been noticed, I have already given my own sentiments at large, even in my first tract on children's diseases. It may, however, be just remarked in this place, that it might, possibly, be fairly urged, that infants must, therefore, either be exempt from their share of the infirmities of human nature, (hereditary evils, from scrofula, &c. excepted) or be peculiarly liable to disorders arising from acidity in the first-passages ; which are confessedly amongst the slightest evils, and at the same time a probable occasion of their escaping those of a more dangerous tendency.

I CONCLUDE, therefore, with observing, that indebted as the Public is, and particularly gratified as I am, by the pains and researches of Dr. CLARKE ; I cannot but insist, that his inductions are neither properly made out by experiments, nor supported by the arguments he has ad-

vanced : nor is it, perhaps, perfectly certain what essential difference there may be between every possible combination with human-milk out of the body, and its natural mixture with the digesting juice in the stomach of an infant. What changes the temperature and action of that bowel, whether mechanical, or chymical, may be capable of producing, cannot for certain, be either proved or disproved from mere speculation ; so that whatever opinion we may form, must remain very problematical, any further than matter of fact may discover their operation, in the different stages of digestion, both in feeble and robust subjects. But in fine, whether under all, or any particular circumstances, any of the secretions be precisely what chemists would term an *acid* ; or whether the offensive matters, under an imperfect digestion, be usually of the nature of *curd*, *butter*, or *phlegm* ; or whatever theory Dr. CLARKE, or others, may from his researches be justified in advancing, at some future period, cannot weaken the force of any fair inference from facts. The author of this work, indeed, ardently wishes, that a practical improvement may be made of every discovery : but whatever the improvements may be, it does not seem likely from the above impartial statements, that the treatment of *infantile* disorders recommended by him, and in many particulars very generally adopted for the last half century, will undergo any essential alteration.

DR. CLARKE concludes with expressing a hope, that a system of practice more rational than the present may be struck out.—What has been the precise mode of practice, or its success in *Ireland*, I can guess only from Dr.

CLARKE's statement in regard to the *Dublin Lying-in Hospital*; where, passing by those years in which an epidemic is said to have raged amongst the children, the number of deaths has ever been far beyond the average in the *British Lying-in Hospital*, in *London*, where the old plan of treatment is pursued.

In support of this assertion I submit the following statement of the two hospitals, and it is presumed, not an unfair one, being copied from the printed accounts of that in *Dublin*, and from certain outlines drawn up, on another occasion, by Dr. CLARKE himself; and contrasted by other corresponding extracts from the *British Lying-in Hospital*, subsequent to those quoted by the Doctor.*

AND first, from his own statement, it appears, that in the old *Lying-in Hospital* in *Dublin*,† (reckoning from its first institution, when, probably, the furniture was new, and there existed no peculiar remote causes of disease) out of 3,746 infants, 241 died *within the month*; that is, between six and seven in every hundred: but that in the *British Lying-in Hospital*, (though confessedly a very old and ill-contrived edifice,) reckoning likewise from its first institution, the Doctor reports, that only 146 died, out of 3,611, which is only as four to the hundred.

After this period the endemic commenced,‡ and the fatality greatly increased; the Doctor then remarks, that after proper means were taken to remove the remote causes of that fatal disease, only 419 infants died out of 8,033 births; that is, from *five* to *six* in every *hundred*.

* For their perfect accuracy, it is not to be expected we should either of us be answerable, as much must depend upon the report of inferior officers; but on my own part, no wilful or known misstatement is offered.

† See Transactions of the *Royal Irish Academy*, anno 1789.

‡ See *Nine-days-disease*, vol. 1. pages 87, 88.

It appears from the printed accounts of the hospital, that this period is taken from the year 1783 to 1788, inclusive. But, the like accounts of the *British Lying-in* hospital in *London*, during the very same years, report that, out of 3,374 children born there, only 95 died ; which is under *three* in each *hundred*.

But to render these calculations more immediately applicable to Dr. CLARKE's observations on the treatment of infants, I shall to these six years, add the *Dublin* printed account of the three succeeding ones, thereby increasing the above period to nine. During these years, the number of deaths was, indeed, amazingly decreased, so that the endemic, especially during the three last, seems to have entirely given way ; and it being also during this period, that Dr. CLARKE had taken up his new theory both of the nature of *human-milk* and the early diseases of infants, a comparison of the number of deaths in the two hospitals, and any inference from it, will be brought to a fair issue. It appears then, that from the year 1783 to 1791, 12,688 children were born in the *Dublin* Lying-in hospital, out of which 593 died ; which is as *four* and *two thirds* in an *hundred*. But, in the *British* Lying-in hospital, during the same years, 5,223 children being born, only 112 died ; which is but little more than *two* in each *hundred*. In the last of the above years (as well as during many former ones) only *two* children died in the *British* Lying-in hospital, out of 627 born there ; and in the year before that, no more than *five*, out of 630, (which number also was not exceeded in several preceding years ;*) and during the

* So that the number of infants dying in the *British Lying-in hospital* under *three weeks* old, is usually far less than that of *still-born* children, as Dr. CLARKE seems to notice with some surprize, in regard to one of the *London* hospitals he has occasion to mention ; but as it, indeed, ought to

last year only *one* infant died ; and seems to prove almost to demonstration, that the entire management of infants in that hospital, as well as the practice of the present day, must be rational and judicious ; and is far from calling for a total subversion of the principles by which they have been always regulated.

be every where, at that early period.—If small things may be compared with great, it may be added here, that speaking from memory, I have reason to think, that in my private practice, during the last seven years, I have not lost more than four infants under the age of one month ; which is much below the average of still-born children, that has fallen to my lot, and of which I have an exact register.

In allusion to this remark, as well as to add my mite to assist the inquiries of other calculators, I annex the following statements taken from the register of the hospital.

Infants *still-born*.

| | |
|---------------------------------|-----------|
| During the first ten years, - - | one in 32 |
| the second ten years, - | one in 37 |
| the third, - - | one in 26 |
| the fourth, - - | one in 19 |
| the last eight years, - | one in 19 |

Whence appears, that the *average* of still-born children has been as 1 to 26.

THE *Average* of *Deaths*.

| | |
|--------------------------------|------------|
| During forty years, has been - | one in 34 |
| the last eight years,* - | one in 84 |
| the last two years, - - | one in 115 |

THE *Average* of *Twins*.

| | |
|-----------------------------|-----------|
| During forty-eight years, - | one in 86 |
| Boys to girls as - - | 17 to 16 |

* It appears from the hospital register, that during the last five and twenty years, the average of deaths has been considerably lessened, and also that a smaller proportion of infants has died in the last ten, than at any period since the first institution of the Charity ; and it may, perhaps, be fairly conjectured, through improvements made in the management of infants, which was not formerly so fully consigned to Physicians:

I add, that in the *British Lying-in hospital*, from the year 1757, (being that in which the hospital in *Dublin* was instituted,) to the year 1791, the average of children's deaths has been *under three* in the hundred; but that, in the hospital in *Dublin*, during the seven *most successful years* it ever experienced, (either previous, or subsequent to the endemic) the average is *above four*; though the mothers, usually, remain there only *a fortnight*, but those in the *British Lying-in hospital*, *three weeks*, and sometimes *a month*.

I have been at the pains of stating this average, in the two hospitals, at different periods, that the reader might be competent to judge of the probable better practice; and may see for himself, that, if the management of new-born infants, or the treatment of their disorders, has been of late anywise influenced in *Dublin*, by Dr. CLARKE's new theory, it has not, hitherto, to say the least of it, any great claim to public attention, on the score of its *success*.

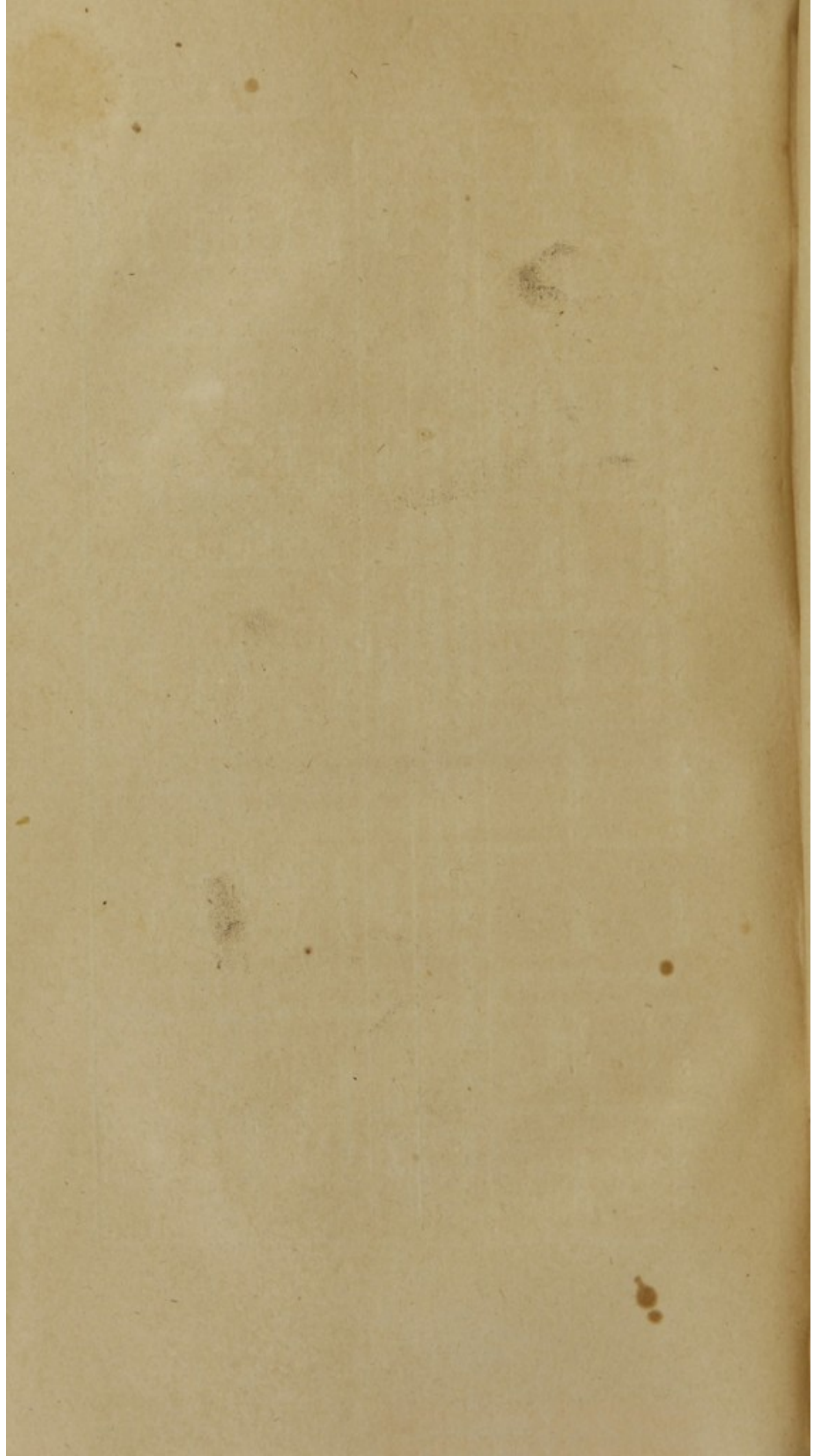
A comparative ANALYSIS of the Milks of Women, the Cow, Goat, Ass, Sheep, and the Mare,
by M. Boyssou of Aurillac in Upper-Auvergny.

| Quantity of Milk. | Names of the several Animals. | Their Nourishment, &c. | Ages of the Milks. | Quantity of Butter. | Quantity of Cheesy Matter. | Quantity of Saccharine Salt. | Quantity of Extract. | Produce, or Extract in Bal. Marie. |
|--------------------------------------|-------------------------------|------------------------|--------------------|-----------------------|----------------------------|--|-----------------------|------------------------------------|
| One Mark-pound Weight, (or 8 ounces) | Woman's milk. | Inhabitant of a City. | 7 months. | 4 drachms, 48 grains. | 1 drachm, 48 grains. | 6 drachms, 48 grains, in 4 crystallisations. | 1 drachm. | 1 ounce, 8 grains. |
| Ditto. | Cows-milk. | Fresh Pasturage. | 6 weeks. | 3 drachms, 45 grains. | 5 drachms, 51 grains. | 4 drachms, 40 grains, in 5 crystallisations. | $\frac{1}{2}$ drachm. | 9 drachms, 42 grains. |
| Ditto. | Goats-milk. | Ditto. | 3 months. | 4 drachms, 24 grains. | 7 drachms, 48 grains. | 3 drachms, in 4 crystallisations. | $\frac{1}{2}$ drachm. | 2 ounces, 16 grains. |
| Ditto. | Asses-milk. | Ditto. | 2 months. | 10 grains. | 2 drachms, 16 grains. | 6 drachms, 16 grains, in 6 crystallisations. | 1 drachm. | 7 drachms, 12 grains. |

| | | | | | | | | |
|--------|---------------|--------|-----------|-----------------------|-----------------------|--|-----------------------|-----------------------|
| Ditto. | Sheep's milk. | Ditto. | 3 months. | 5 drachms, 40 grains. | 7 drachms, 30 grains. | 3 drachms, in 4 crystallisations. | $\frac{1}{2}$ drachm. | 2 ounces, 16 grains. |
| Ditto. | Mare's milk. | Ditto. | 2 months. | 6 grains. | 2 drachms, 48 grains. | 4 drachms, 48 grains, in 5 crystallisations. | 2 drachms, 36 grains. | 7 drachms, 12 grains. |

A comparative ANALYSIS, by ABRAHAM VAN-STRIPIAAN LUISSIO, *Physician to the Dauphin* ;
and NICOL. BONDT, *Physician at Amsterdam.*

| Scale 100. | Cream. | Butter. | Cheese. | Sugar. |
|------------|---------------------|--------------------|--------------------|--------------------|
| Cows-milk. | $4-\frac{1}{16}$. | $2-\frac{1}{16}$. | $8-\frac{1}{16}$. | $3-\frac{1}{16}$. |
| Woman's. | $8-\frac{1}{16}$. | 3 | $2-\frac{1}{16}$. | $7-\frac{5}{16}$. |
| Goats. | $7-\frac{1}{16}$. | $4-\frac{9}{16}$. | $9-\frac{1}{8}$. | $4-\frac{3}{8}$. |
| Asses. | $2-\frac{1}{16}$. | — | $3-\frac{5}{16}$. | $4-\frac{1}{2}$. |
| Sheep's. | $11-\frac{9}{16}$. | $5-\frac{1}{16}$. | $15-\frac{1}{8}$. | $4-\frac{3}{16}$. |
| Mares. | $\frac{1}{16}$. | — | $1-\frac{1}{8}$. | $9-\frac{1}{16}$. |



A
T R E A T I S E,

Ec. Ec. Ec.

D I R E C T I O N S

For the General MANAGEMENT

Of INFANTS and YOUNG CHILDREN.

AMONG the multifarious matter brought forward in the following pages, the Aliment most adapted to infancy has been said to be one of the first importance. Previously, therefore, to treating of Diet more extensively, and the General Management of Children, I shall enter into a candid discussion of that particular, by considering the case of Infants intended to be reared without the breast, or brought up, as it is termed, by *band*—an article esteemed to be of the first importance by writers and practitioners in every age.

B B b

On DRY-NURSING.

Familiar Directions for the Nursery. Dry-nursing is an unnatural, and unsafe Method of rearing Infants. Every mother who is in good Health, ought to suckle her own children: it being equally advantageous to both.

AN attempt to set forth all the improprieties of this mode of training up infants from the birth, would carry me, indeed, altogether beyond the limits I have assigned to the work. And I am glad to find by some recent examples among persons of rank, that there is less occasion for it, than there appeared to be some years ago. It would be unpardonable, however, in a work of this sort, not to insist how inadequate every substitute for the breast has been universally found; and therefore how proper it is that every child should have it, and even be suckled by its own mother, where her health can safely admit of it. Reason, instinct, experience, all conspire to support this opinion; and whoever will determine to attend only to matters of fact, may soon be convinced of it.* Nature herself points it out: all the nobler part of the irrational creation is qualified for it, and by instinct obeys—the human race alone, possessed of nobler powers, and rational discernment, perverts those faculties to evade its dictates,

* The duty of suckling has the sanction of almost every writer, as well as of many persons of rank; in the remote times of PLINY. And VAN SWIETEN, a late Dutch author, remarks, that one of the Queens of France, suckled her own son, and continued it even during a fever. One of her ladies, however, having, on some occasion, given the child her breast, the Queen was so much disgusted at it, that she forced her finger into her son's mouth to induce vomiting; unwilling that it should receive any nourishment but from herself.

and to invent excuses for refusing its claims.. But puerile, indeed, are all the common arguments against it, in the greater number of instances ; and herein Dr. ARMSTRONG seems to have egregiously erred ; for though, apparently, an advocate for suckling, he has laboured for arguments to apologize for the spoon and the boat, in too many instances.—It were easy, perhaps, to produce as sound arguments against eating more than once a day, because so many people become diseased from excess. On the other hand, a very rational argument in favour of breast-milk, arises from the probable consideration of the stomach juices of every animal being the best suited for acting upon its respective milk.

giously

BUT not only is the breast-milk the only natural,* and most proper food for infants, (experience demonstrating, no artificial one to be equally easy of digestion, and nutritious ;†) but suckling also conduces to the easy recovery of the mother ; though she should not be able wholly to support her child by the breast, nor to continue suckling so long as the infant may require it. But though from much experience I venture to give this opinion, I do, by no means, intend to assert, that every mother is able to

* In some very northern parts of the world, as those of *Greenland*, and the neighbouring country of the *Esquimaux*, the breast appears to be, in the strictest propriety of speech, the *only* food that nature has provided for infants ; insomuch that, whenever a suckling-mother happens to die, her infant is buried with her : experience (one would hope) having demonstrated the inefficacy of the hard and coarse diet which nature has there so sparingly dealt out, it is esteemed an act of compassion to put an end to an infant's sufferings by plunging it into the sea.

† If the reader will consult the *Introduction* to this volume, and the *Scale* annexed to it, the very material difference will be seen between human, and all other milks, as well as every other nutriment that art has contrived for new-born infants.

suckle her child even for the month, or would do well to attempt it ; but I am, nevertheless, equally satisfied, that many are very well able who do not ; and that several who have only through fear been discouraged from doing it, in two or three lyings-in, having afterwards been prevailed upon to make the attempt, have gone on with it for several months ; enjoyed better health when they suckled than at any other part of their lives, and their children have thriven perfectly well. Art and management will likewise afford some assistance, where the natural constitution, alone, may not be fully equal to the task. In this view, besides a suitable diet, air, exercise and a regular manner of living ; I will venture to recommend cold-bathing, especially in the sea, if the season of the year should permit ; and this not only from my own experience but of others, it being often found particularly useful in restoring the strength, and increasing the milk in nurses of a weak constitution ; and can never do any harm to a woman merely as a nurse, where no other reason, independent of that circumstance, forbids it. The principal caution necessary on this occasion, and for every lady of a delicate habit, being, not to bathe too frequently, that is, not to exceed twice, or at the most, three times a week.

ADVANTAGES of SUCKLING :

As hath been confirmed by Experience. But it will demand some Sacrifice, if it be done in the manner it ought. And if not, may be injurious to the child. There are also Objections to foster-nurses that respect themselves as well as the child ; besides the Neglect on the Parent's part ; which is sometimes very criminal, and is noticed in every civilized Country. Great attention to Infants is a Duty, the irrational Species are never wanting in Tenderness and Prudence.

BESIDES the benefits derived to infants, there are others, it has been said, resulting to the suckling-mother, and some deserving a further notice. For by this means, where due care is taken, painful inflammations and suppurations in the breast may often be prevented, as may be fairly concluded, not only from the rarity of such complaints in the *British Lying-in Hospital*, where almost every woman suckles her infant, but from the like authority of Dr. NELSON, who reports, that "out of 4,400 women who suckled their children, only four had milk-sores, and that these had either no nipples, or former sore breasts." It has likewise long been suspected, and of late years more generally imagined, that some of the worst fevers, as well as the painful swelling of the legs, and other more rare ill-effects of child-bearing may, generally, be prevented, by suffering the milk to flow duly to the breasts, and be freely drawn from them, though only for the month. These advantages, if duly credited, one should hope, might tend to induce ladies of rank to set a general example, by performing this kindest and most pleasant of-

fice, at least during their confinement.* But it would be unjust not to add, that whenever they may purpose to assume it for a much longer time, they should determine to do it effectually, or they will but injure their children, as well as forfeit many of the advantages and comforts, which in a due execution of it, they would have a right to expect.

For a long time, however, writers have successively complained, that, notwithstanding the many encouragements often brought to the ears, and urged upon parents, that tyrant, Fashion, has prevailed over the good sense and natural feelings of many, whose maternal affection can be, in no other instance, suspected. There are honourable exceptions, however; and it is with great pleasure, that I have been able to observe as well in the former, as the present edition, that ladies of rank are every year becoming converts to this maternal duty, and are proud of supplying their offspring with that new nourishment, wherewith nature hath purposely accommodated them.—But in this age of dissipation, there are yet some, against whom a heavier complaint may be brought, who not only refuse to give nourishment to their tender and helpless offspring, but whilst they, unnecessarily, commit this charge to a stranger, give up every other charge with it;

* The present day is peculiarly favourable to Ladies determined upon this laudable attempt, through the admirable discovery of *Mrs. Relf's Nipple-case*, sold at No. 12, Bell's Buildings, Salisbury-square, Fleet-street; or for families at a distance from *London*, by application to Mr. SAVIGNY, Surgeon's Instrument-maker, in *King-street, Covent-garden*.—Though a most simple, it is an efficacious contrivance, especially with the late improvement of the plate being made of glass instead of silver, or other metal, equally calculated to assist the infant to draw out the milk without trouble to itself, or pain to the parent, ~~however ill-formed or~~ tender the part may be.

and seldom visit the nursery, or superintend those they have set over it. It is from hence, that so many errors in point of diet, air, clothing, &c. &c. have insensibly crept into the houses even of some, whose rank in the world would otherwise secure to their children every advantage that art, and a due attention to nature could point out.

ANOTHER important, and affecting consideration might be brought forward on this head, which I shall, indeed, only touch upon, as it calls rather for the pen of the moral philosopher than of a physician, I mean, the sacrifice which poor women make in going out to suckle other people's children ; the sad consequences of which are often severely felt by their own, through neglect or mismanagement, and especially for want of the breast. Indeed, no attention of the nurse can duly compensate this loss ; and only the most common substitutes for it can, in their forlorn circumstances, be allowed them. This hath become a source of evil, that, I fear, has not been sufficiently thought of, and has led to the sacrifice of many infants every year ; a matter of serious importance, indeed, to the public, as well as to the families immediately concerned. It is true, indeed, ladies of rank frequently do all in their power to counteract this too natural, and fatal consequence, by a careful attention to the forsaken infant ; not only insisting upon a proper breast being provided for it, but regarding it as a kind of foster-child : so that, after generously preserving it through infancy by their charity and attention, they frequently follow it with their protection and kindness through life. Such charity indeed, adds a lustre to elevated rank ; though perhaps, much less than this, from some people, would be short of their duty. But it is not every family that is in circum-

stances to adopt this conduct ; though I am sorry to add, that too many who are not, nevertheless, greedily adopt the fashions, and mimic the manners of the great, by more criminally and needlessly refusing to suckle, and abandoning that tender charge with which nature herself has intrusted them.

It gives me real concern to find occasion for such unpleasant reflections upon any of the sex I so much honour, and upon any of my fair, and sensible countrywomen, in particular. Nevertheless, I cannot help suspecting, that wherever such neglect does exist, whether in regard to suckling, or superintending the management of their children,* and does not arise from want of health, or some equally warrantable excuse, it can be charged only on the depravity of the age, which insensibly corrupts the taste, and perverts the judgment of many who wish to do well. And depravity of manners, when once become general, has ever been considered as the leading symptom of a falling empire, and ought to be pointed out as far as it extends, by every friend to the community, at whatever hazard of giving offence, in every conspicuous instance of it. TACITUS complains of the degeneracy of *Rome* in his days, (though by no means its most degenerate era,) lamenting that, while in former times grave matrons attend-

* This has long been the case in both regards, amongst the lower class of people in *France* : and that nation therefore has been very much indebted to the goodness of the late Monarch, who to the last, was making solicitous inquiries through *Europe* to discover the best substitute for the breast.† Should the method recommended in the subsequent pages be, amongst others, adopted, its claim will soon be determined ; and I venture to hope, will yet be to the advantage of the rising generation in that kingdom, and elsewhere.

† See *Questions* proposed to the *Royal Society of Medicines in Paris*, October, 1789, by the late KING's authority.

ed to their children, as their first family concern, they now, says he, intrust them to the care of some *Grecian* girl, or other inferior domestic.—It is no small satisfaction to me, however, to observe, that in this country there has been no ground for a general complaint on this head, and that the evil is annually diminishing: there are also examples in high rank of a nobler conduct, and one peculiarly elevated, which were it exactly copied, would prove the glory of the present day, and a blessing to the rising generation.—May the time hasten when it shall be universally followed, whilst I attempt to point out as far as my observation has extended, the most prudent means of executing this important branch of female duty.

It may not be amiss, at the opening of the ensuing observations to remark, that the demand for the multifarious directions here offered, as well as all those given by other writers on the management of children, arises from the false reasoning of those to whose care the infant state is frequently intrusted; who instead of being guided by the sober dictates of nature, have adopted the rules of art, falsely so called, or have followed the wild fancies of anile superstition.

On the other hand, the various tribes of the irrational species act in a thousand instances more prudently than we do, and being uniformly guided by instinct, are led implicitly, and safely through all their operations. Many quadrupeds, fish, fowls, and even reptiles seem to know what is proper for them as soon as they come into existence, and have strength sufficient to reach after it. In other instances, they are guided by the parent, who seems to adjoin some degree of knowledge acquired by experience, to the instinct with which it is endowed; and gradually leads on its young to imitation, whether it be to eat, to

swim, or to fly. Man on the contrary, designed to be the pupil of observation, has scarce any innate discernment ; and consequently his infant race pass through a long period utterly helpless, alike divested of ideas to guide, and of strength to manage for themselves. But to the Parent is imparted both ; whose province it is to judge for them, and actually to put into their hands or mouths, whatsoever they may stand in need of. When the parent, therefore, forsakes the paths of simplicity, and lays down arbitrary rules, the result of false science, instead of patient experience ; or mistakes for, or prefers the clamour of fashion to the voice of nature ; confusion and disease must be the unavoidable consequence.—Awakened by these, man is loudly called upon to return to the simplicity of nature, and the result of dispassionate observation.—To lead to this, will be a principal intention of this work, wherever deviation and danger are connected ; assured, that the experience of the most judicious and successful of its readers will applaud the design, and confirm the generality of the observations.

To this end, let us imagine an infant just born, who, doubtless, at this moment, calls for our best attentions. And first, it may be observed, that it ought not to be exposed to any thing that may violently, or too suddenly affect the senses : on which account, the most ancient writers have well advised, that it should not be exposed either to great heat or cold, nor to a strong light, nor odours of any kind, however grateful to adults ; the unpleasant effects of which are sufficiently manifested by the infant itself ; and a remarkable instance is recorded under the head of convulsions.*

* Vol. 1, page 85.

On the first Washing of INFANTS.

Partial Cold not likely to be useful ; and may frequently prove injurious ; though strongly recommended by writers. The COLD-BATH acts on a different Principle, producing a general Glow, and is a safe and salutary Remedy ; supported by Reason and Experience, and an effectual Mean of Cleanliness.

THE attention will next be called to washing and dressing it, together with other little offices suited to the occasion. And this first washing is of more importance than is usually imagined, being amongst the *little* things which are often overlooked by writers and others : but it is not every little thing that may safely be neglected, or ill-done. In regard to poor people, especially, and infants born in hospitals, and other crowded apartments, the importance of proper washing is greatly increased ; the foulness left upon the skin being a remote cause of some dangerous complaints, particularly such as occasionally infect certain districts. Some infants also are covered much more than others with a thick, viscid matter, which cleaves so fast to the skin, that it is not easily washed off, which there is, however, another reason for doing, as it would obstruct perspiration ; which can never be duly performed, where the skin is left anywise foul. On this account, the nurse should be very attentive to this first concern of her infant charge, and whatever wash she may make use of, it should always have soap in it, and the child be well rubbed, especially under the arms, in the hams, and groins, where this mucus is apt to adhere : and to this end, it would be better she should not make use of pomatum, or

other grease, which tends to stop up the pores, and prevents perspiration ; or that she be, at least, very careful the grease be afterwards well wiped off. In the same view, it were well if it were a common practice to repeat the washing for two or three days, with light frictions of the skin ; which it is not improbable might tend to prevent the red-gum and other similar affections of the skin, with such other complaints as may arise from the suppression of insensible perspiration.

After a little time, and sometimes on the next day, most nurses wash a child all over with cold water ; a practice highly extolled by Dr. ARMSTRONG, as well as many other practitioners. But though no one can be a greater advocate for every thing that is bracing than I am, I cannot approve of this substitute for cold-bathing, as it is called ; at least, as a too indiscriminate practice. The cold-bath acts on a quite different principle, and is so very beneficial, that I could wish almost every child, especially those born in *London*, were bathed at three or four months old, (provided they be not costive, nor feverish at the time, have no internal obstructions, nor the season of the year be improper ;) which I am certain would remove, or perhaps prevent, many of their complaints.* But to see a little in-

* *Monsr. Le Febvre de Villebrune* in his translation of my *Diseases of Children* into *French*, has added a chapter upon *baths* ; in which he highly extols the warm-bath, and as strongly controverts the idea of the probable good effects of cold-bathing ; and even makes use of a long chain of arguments against it, deduced, indeed, from an ingenious theory, and supported by quotations from the ancients ; who practised, however, in a very different climate.—The shortest, and, perhaps, the best reply to this specious reasoning, might be given in the well-known mode of *DIODEGES* to *ZENO*, whose metaphysical arguments against the possibility of Motion, *DIODEGES* laconically refuted, by hastily getting up, and walking across the school. We have, in like manner, only to point to the number of

fant of a few days old ; the offspring perhaps of a delicate mother who has not even strength to suckle it ; washed up to the loins and breast in cold water, exposed for several minutes, perhaps in the midst of winter, (when

children and young people, who from very weakly infants, have been rendered strong and healthy, merely from a prudent use of the *cold-bath* ; and may defy any man to produce the like instances of its opposite effects when made use of with the cautions which every powerful remedy requires.

On the COLD-BATH.

SO great, and oftentimes surprising, indeed, are the good effects of *Cold-baths*, that I do not wonder that Priests, in times of ignorance, have been known to account them holy, and dedicate them to some Saint ; to whose influence certain Cures were attributed.

The salutary operations of the cold-bath are, however, easily accounted for, from its promoting insensible perspiration, and rendering that excretion less readily affected by the impression of the external air.

It may be known to agree with children, when they come out of it warm, lively, and their strength increases on the use of it. On the other hand, if they continue cold, are dispirited, and seem rather to lose strength, it will be as certainly prejudicial.

As a mean, however, of acquiring that re-action and glow, which bathing is designed to effect, a loose flannel chemise may be thrown over the child the instant it is taken out of the bath. This will not only secure from the unpleasant shock arising from the cold air, but allow time for friction, along the course of the back-bone ; which should be continued all the while that an assistant is employed in wiping the lower limbs, and putting on their usual covering. If this were duly attended to, I am persuaded, that both many infants and adult persons would be benefited by cold-bathing, who for want of that kindly glow, are unable to bear even bathing in the sea.

But I must observe, that the above mentioned unpleasant effects are frequently owing to an improper use of bathing, and for want of making a very obvious discrimination in the habit of body of different children. —For the tender and delicate, not only should a good quantity of salt be put into the bath, but the water may also at first be a little warmed, and children be brought only by degrees to endure it quite cold, which

children are more liable to disease than those born in summer;) itself in one continued scream, and the fond mother covering her ears under the bed-clothes that she may not be distressed by its cries; has ever struck me as a piece of unnecessary severity, and savours as little of kindness, as plunging an infant a second or third time, into a tub of water, with its mouth open, and gasping for breath, in the old-fashioned mode of cold-bathing: both of which often induce cramps and pains in the bowels, and weakness of the lower extremities, but rarely an increase of strength.

they will not by this means be the less likely to do: or should the water never be perfectly so, (but merely below the heat of the skin) the advantages of such bathing will, nevertheless, be considerable; though the late Dr. HUNTER and others have thought differently. For it is not, indeed, merely from the coldness of the water that the benefit arises, but is rather from the subject being suddenly immersed into a very different medium, (if so be, that medium be not actually warm;) in which the contact of the external air is taken off during the immersion, and is as suddenly restored on his being taken out. By this means the blood is alternately pushed forward into the extreme vessels, and suddenly repelled to the heart, (in proportion to the coldness of the water and the powers of the system) and suffers an advantageous attrition against the sides of the vessels. The small passages are rendered pervious, and the contractile power of the heart is increased, as well as the muscular fibres proportionally strengthened.—The salt added to the water pretty certainly prevents taking cold, whilst it adds to the stimulus on the skin, and has therefore a more salutary operation on the pores.

For the sake of some readers it is necessary to observe, that a child is to be put only *once* under the water at each time of bathing, and to be taken out as soon as it is possible. It should be received in a blanket, and be wiped dry with a cloth in the most expeditious manner; and as soon as it can be dressed, should partake of such exercise as may be best suited to its age; and by no means be put into bed. There will need no great attention to its being wiped perfectly dry, as a child will be less liable to take cold from a few drops of salt-water being left upon it, than by being long uncovered in some parts of its body, in an over-caution to wiping it dry.

It surely cannot be amiss, in winter time at least, to take the cold off the water for the few first days, which it has been observed, will be useful in other respects; and whenever cold water is made use of, it will be quite sufficient to wash the child as far as a regard to cleanliness may require, which will always be the parts exposed to the worst kinds of heat and galling.

On CHAFING and EXCORIATIONS.

Chafing and Excoriations of different Kinds, are of little Consequence, if Infants be kept clean. Particular Modes of Cleanliness and Management recommended, with particular reference to the Poor.

To obviate these troublesome affections, washing with cold water is certainly useful; but can never call for the infant being plunged with its feet or bottom into a pan full of cold water, and be afterwards dashed all over with it, to its daily discomfort and terror. Cleanliness and bracing the skin are the proper intentions; and with this view therefore, beside the groins, and contiguous parts; the arm-pits, folds of the neck, and parts behind the ears, being also disposed to slight chafings, may be occasionally washed with cold water; and if the discharge be not thereby checked, they should be dusted with a little hair powder, the powder of calamine-stone, or of ceruse, or a little white vitriol may be added to the water; which if the excoriations are not very considerable, will generally heal them very soon: should these fail, they may be dressed with the red drying ointment of *Bates's* dispensatory; with exceptions, however, of the ears. But there is a still more troublesome excoriation that happens during the

month, particularly to infants subject to much acidity at the stomach, and very green stools; in this case, the parts covered with the cloths are peculiarly chafed, and while such acrid motions continue, this will not be healed by any drying applications. I have found nothing so pleasant, and useful in this case, as covering the parts with the thin skin found upon the veal kidney, which softens, and cools them, till the cause of the complaint may be removed by the use of proper absorbents. There is a mixed affection of this kind, however, in which these parts are not actually excoriated, but are very hard and swollen, as well as painful and inflamed; and the affection seems to be kept up by the acrid nature of the excretions, though not originally caused by it. In this case, instead of daubing the parts with wetted fuller's earth, gruel, or greasy mixtures; an embrocation of elder-flower-water, with as much boiling milk as will render it moderately warm, has been immediately efficacious. But one grand mean of keeping children from chafing is to preserve them very dry and clean; * articles of so much importance, that I might have insisted much longer upon them, if I had not already exceeded the bounds I had intended, and presumed it unnecessary for the generality of readers. A vulgar error, however, may be noticed, as it has crept into some respectable families, that of wearing a pilch (as it is called;) an old fashion still too much in use, and contributes not a little to make children weak: it being originally designed to be worn only for the first few weeks after birth, but is often continued for as many months. It can answer no possible end but that of saving a little trouble, since in-

* To this end, inferiour people need to be admonished, that all the cloths should be properly *boiled* every time that they are *washed*; a circumstance such people are apt to neglect.

stead of keeping children dry and clean, it has the directly contrary effect ; for if it has received any wet through the usual cloth laid under it, it ought itself to be changed as often as the other, or must certainly be damp and uncleanly ; whilst by heating the loins, and lower limbs, it has a manifest tendency to relax, and dispose infants to become rickety. It may be proper, however, to drop a word more with a view to counteract a vulgar notion, familiar only to common people, that a frequent change of linen has a tendency to weaken new-born children ; an absurd idea that has not the smallest foundation in reason or fact. It is, on the other hand, next to impossible, that a child should thrive or be healthy, if the strictest attention be not paid to cleanliness, which together with the articles of food, good air and exercise, are, perhaps, the principal ones in which the children of poor people are at a great disadvantage, and which become a constant source of rickets and distortions among them. Let not these ill-effects fall on the children of those whose misconduct alone can expose to them. And, indeed, little infants, if healthy, may oftentimes be so managed as to be much more cleanly, than even people of great delicacy have been wont to imagine ; so as even to supersede altogether the use of cloths, either by night or day.*

* I have, indeed, known only four or five instances of it, (though there may be many that I have not been made acquainted with ;) the first of which was in the family of a Lady of rank, whom I was some years ago attending. I was there myself a witness to the good effect of holding a little pan under an infant of only four months old, as it lay across the nurse's lap ; which I was assured had been her practice from the month, and that the Lady had obliged her nursery-maids to do the like with her two former children.

TUMID BREASTS *of* INFANTS.

Milk in the Breasts of Infants ought not to be rudely forced out, as is so very commonly done ; but the Breasts be covered with Emollients.

ANOTHER imprudent, and certainly useless operation practised by nurses, is, that of forcing out the milk from the little breasts of new-born infants. Some children a day or two after they are born, have the breasts exceedingly tumid, hard and painful, containing something like milk ; and nurses imagine it to be a great kindness to milk it out, as it is called. But I have often been grieved, to see a nurse rudely rubbing, and even squeezing the breasts, already in a state of inflammation ; and continuing it even for some minutes, though the child's cries might convince her she is putting it to pain. In the case of inflammation, a bit of bread and milk poultice is the properest application ; but if the part be not inflamed, it can want nothing at all : or should it, on any account, be conceived that something ought to be done, a little oil with a few drops of brandy may be gently rubbed in ; or small pieces of the litharge-plaster may be applied, and lie on the parts till they fall off of themselves. I have, indeed, had sufficient evidence of such considerable tumefaction and hardness, as to satisfy me, that when no violence is offered to the parts, the application of a bread and milk poultice will *always* prevent either suppuration, or other unpleasant consequence. I have met with instances in which the tumour has been much larger and harder than I could have suspected on such an occasion, and yet after continuing for more than

a week without any sensible diminution or amendment, has soon afterwards subsided entirely.

Having considered these necessary preparations, I proceed to offer a few remarks on the prevailing errors in dress.

On the FIRST-CLOATHING of INFANTS.

Infants, though indeed, weak and helpless, want only Attention and Tenderness. Errors in regard to the first-cloathing, lay the Foundation of Evils not always easily remedied, when not attended to in time.

UPON the first sight of a new-born infant, every one is struck with the idea of its weakness and helplessness ; and we often take very improper methods of strengthening it. It is *designed* to be weak and tender in this infant-state, as is every other object around us.* Take a survey of nature, from the first opening leaves of the vernal flower, or the more delicate foliage of the sensitive plant, to the young lion, or the elephant ; they are all in their several orders, proportionally weak, and cannot exist without some exterior support. But they stand in need of nothing but what nature has prepared for them. If seed be cast into a proper soil, it wants only the surrounding elements to insure vigour and maturity. So, if the tender infant be born of healthy parents, and

* Nous naissons foibles, nous avons besoin de forces ; nous naissons dépourvus de tout, nous avons besoin d'assistance ; nous naissons stupides, nous avons besoin de jugement, tout ce que nous n'avons pas à notre naissance, et dont nous avons besoin étant grands, nous est donné par l'éducation.

at its full time, it is usually sufficiently strong ; proper food and nursing, (with ordinary attentions to screen it from the extremes of heat and cold) are the elements whose fostering influence it requires—if it have these, it will need nothing more.

It is true, it is very weak ; but is it therefore to be tight rolled, under the idea of supporting it, and giving it strength ? It is a bundle of tender vessels, through which a fluid is to pass, uninterrupted, to be equally distributed through the body, and which are therefore surrounded by a soft medium, pre-disposed to yield to the impetus of their contents. Hence we cannot but conceive, how injurious any great pressure must be to so delicate a frame, which before birth swam in a soft fluid. But besides this, the infant requires freedom and liberty on other accounts : the state of infancy and childhood, it has been well observed, is impatient of restraint in this respect, through the restless activity incident to youth, which makes it delight to be in perpetual motion, and to see every thing in motion around it.

Let us again advert to the irrational species, whose more sagacious conduct so often disgraces our own. There is no occasion on which they do not seem to consult propriety ; and having a right end in view, they as certainly accomplish it, and always in proper time—Doth a little bird design to prepare a lodging for her young ? it is sure to make choice of the fittest situation, whether to defend them from dangers, or obtain the most convenient supply of their wants ; if to this end it be necessary to construct the nest of rough and strong clay, it is still lined with down: the young lie warm and secure ; but they lie at their Ease.

“ In this view of Nature, (says a good writer, about fifty years ago) we shall find the Birds, not only provide

Nests for their young, but cover them with their Wings, to guard them from the chilly air till time has increased their Feathers. The Beasts, with amazing tenderness, cherish their young, till Nature has lengthened the Hairs, the Wool, or whatever covers them; or Time has given them the Power of Action. Further, we shall find, that Insects and all the vegetable Creation, shoot out into Life, and receive Vigour, Comfort, and Support from that glorious body, the Sun: so indispensably necessary is warmth; and so essential to the raising and preserving of All." But necessary as warmth and support most indubitably are, they need not be obtained at the expence of liberty and ease; which during the tender state of infancy especially, are of peculiar importance.

I am not ignorant, indeed, that for many years past, the very ancient tight mode of dressing infants has been discontinued; for which we were probably first indebted to Dr. CADOGAN. It is certain also, that for the last forty years, the fashion recommended by him has been improving; but there is yet room to go forward; and were every tender parent in this country, thoroughly sensible of its advantages, it would soon become fashionable to see children as much at their ease on a christening-day, as they are when laid at night in their beds. And I may be permitted to add here, what every modern practitioner has adverted to, that were strings, almost in every instance, substituted for pins, physicians would seldom be at a loss to account for the sudden cries, and complaints of infants, which are too often produced by this needless part of their dress*—A practice, it is to

* A gentlewoman many years ago informed me, that one of her children, after long and incessant crying, fell into strong convulsions, which her physician was at a loss to account for, nor was the cause discovered till

be hoped, which may in time be laid aside, since some of the first families in the kingdom have already set the example.

Nature knows no other use of clothing but to defend from the cold—all that is necessary therefore for this purpose, is to wrap the child up in a soft loose covering, and not too great a weight of it ; to which ornaments enough might be added without doing mischief. And had this matter been always wholly left to the judgment of parents, that is, probably, all that would have been done ; but the business of dressing an infant is become a secret, which none but adepts must pretend to understand. The child itself, however, discovers to us the propriety of such clothing, by the happiness and delight it expresses every time its tight day-dress is removed, and its night-clothes are put on. Whereas, *the art of dressing* has laid the foundation of many a bad shape, and what is worse, of very bad health, through the greater part of life. Instead, therefore, of a scrupulous and hurtful attention to such formalities, nurses would be much better employed in carefully examining new-born infants in order to discover any mal-formation of parts, especially those concerned in the excretions necessary to life, as noticed in a former part of this work ; and which, it has been said, is sometimes over-looked.

The tender infant being dressed, and having undergone such other little discipline as has been mentioned, is usually so far fatigued by it, as soon afterwards to fall into a sound sleep. We shall consider it as in this state, and leave it awhile to be refreshed, whilst I endeavour to

after death ; when (shocking to relate !) on the cap being taken off, (which had not been changed on account of its illness,) a small pin was discovered, sticking up to the head, in the large fontanelle, or mould.

conduct the fond mother through the various other duties it calls for from day to day, till it happily arrives at an age free from the peculiar hazards of infancy.

IN the pursuit of such a plan, we meet with a variety of miscellaneous articles, and though many of them are not of apparent magnitude in themselves, are in their consequences highly worthy of notice; which that they may be thrown into some kind of order, may all be very well classed under the several heads of what the *schools* have termed the *Non-naturals*. Such are, *Air*; *Meat* and *Drink*; *Sleep* and *Watching*; *Motion* and *Rest*; *Retention* and *Secretion*; and the *Passions of the Mind*; a due attention to which, may prevent many of the evils incident to this tender age—To begin with the first of these :

On AIR.

OBSERVATIONS on the NON-NATURALS. *The first of these relates to AIR. Necessary Cautions in regard to the extremes of Heat and Cold, and sudden Transitions of every kind, unsuitable to the infant's age. The great Advantage of Air. Changes to be made in the Dress.*

THE great importance of this has been set forth when speaking of the Diseases of infants : I shall here in a more particular way observe, that the age, constitution, and circumstances of the child, and the season of the year, ought always to be taken into consideration ; *that* being highly proper on one occasion, which would be very detrimental on another. In general, it has been said, that warmth is friendly to very young infants, but they should, nevertheless, be inured gradually to endure the cold air, which is absolutely essential to their health.

I cannot therefore agree with Dr. ARMSTRONG, who thinks, that the reason of the rich losing fewer children than the poor, is from their being kept warmer. On the other hand, it was aptly said by one, that "a warm nursery fills a cold church-yard." In fact, it is not a merely cold, but a damp and confined air, that is so injurious to children, and to which the poor are peculiarly exposed, especially during sleep. Much caution, indeed, is necessary on this head in this unsettled climate, and evinces the necessity of parents superintending those to whose care they intrust infant children ; since nursery-maids are often indiscreet in keeping them too long in the air at a time ; which is a frequent occasion of their taking cold, and deters many parents from sending them abroad so often as they should. Another, and a worse, as well as common fault of nurses and servants, is, that of standing still with children in their arms in a current of air, or even sitting down with other servants, and suffering children who can run about, to play at a little distance by themselves, sit down on the grass, and such like ; the consequences of which are often a long confinement to a warm room, and either a prohibition against going out so much as they ought, or a fresh cold owing to some of the like irregularities.

But if children be duly clothed ; a circumstance to be particularly noticed ; and are otherwise properly attended to whilst they are abroad ; they will not only endure a great deal of very cold, but other inclement weather : though it has been observed, that caution and prudence are required in training up infants to withstand, and profit from being abroad when the air is very cold or moist. Notwithstanding, it certainly may be accomplished ; and it is a known fact, both amongst the higher as well as

inferiour ranks of people, that those children are the healthiest, and suffer the least from colds, who are accustomed to be out of doors in almost all kinds of weather. But to render children thus strong and healthy, it is not sufficient that they be abroad daily in a coach ; they should be carried on the arm, and be put on their feet, at a proper age, and partake of such exercise, for a reasonable time, as shall keep them moderately warm, and bring them home in a glow, instead of wishing to rush towards a fire the moment they return ; such sudden transitions being always improper, and only render children more liable to take cold.

A GERMAN writer has some such pertinent remarks on this head as it will scarce be thought a digression to transcribe. "The important step" (says he,) "a man takes
" into this world imparts to him all the privileges thereof,
" of which this is one, the ability to bear the effects of the
" air. Why then debar him from this privilege ? as he
" is all his life to be encompassed with this air, at one time
" cold, at another warm, now moist, again dry. For the
" cold of the air so anxiously avoided, brings along with
" it the means that secure against its own inclemency ;
" the great strength of fibres, imparted by it to the child,
" procuring, by means of a brisker circulation, a greater
" degree of heat, and consequently the reverse of its violent impression. This, indeed, may seem unintelligible
" to those who imagine the human body to be only an
" hydraulic machine, consisting of innumerable tubes, in
" which the wheel is moved without a proper power, consequently without a sufficient reason ; not, to those who can
" distinguish between the effects of nature and art, who are
" apprised of the power that moves the animal body, and
" that the sensations are such a power, which arise with-

“ out our knowledge and our will. To such only it will
“ be intelligible, in what manner an increased resistance,
“ produced by the cold in the solids and fluids, is capable
“ of bracing the heart, the source of life. From a slight
“ knowledge of mechanics we come to understand that
“ the resistance diminishes that power, which in animal
“ bodies it increases ; come to see, that the most inge-
“ nious constructions produce no manner of motion ; that
“ all mechanical laws are, indeed, perfectly just, but more
“ accurately to be determined, in order to a proper appli-
“ cation of them to the human body, in which the will,
“ imagination, and sensations, are the springs of motion,
“ without which all motion would cease, and only leave a
“ machine resembling a water-work, to be carried about
“ by wind.—We need only appeal to experience, which
“ will teach us, that in order to a healthful state, we need
“ not be brought up like those who are indulged with a
“ bed of down, and a warm room, but those, of whom no
“ extraordinary care being taken, are greatly left to their
“ own disposal.”

It is, indeed, generally owing to sudden transitions only that some infants so readily take cold. This sometimes happens as soon as they are born, and repeatedly during the month ; the slightest symptom of which is a stoppage, or stuffing of the nose, which may here be briefly considered.

The SNUFFLES.

THE stoppage, so called, is, indeed, only a trifling complaint, and seldom requires more than a little pomatum, or *promade divine*, to be put to the nostrils when the

child is laid in the cradle ; or if this fail, a little white vitriol may be dissolved in rose-water, and the bridge of the nose often wetted with it.—A matter of much more importance, however, under this head, is that of distinguishing this complaint from one of a much more serious nature, which it resembles only in the kind of noise which the stuffing of the nostrils occasions ; and has been termed *Morbid Snuffles*.*

On SHORT-COATING.

The fittest Season for these Changes should be always selected.

IT will be adviseable, in order to inure infants to the air, that this change in their dress be made as early as the season of the year will permit ; but their dress should be still loose and easy, and many children may continue without stockings even two or three years, and boys till they are breeched. As to the latter change, I think, it might with more propriety be made in the beginning of winter, than in summer, as the dress upon the whole is warmer, especially about the chest, which from having been open for three or four years, it seems rather strange to cover, all at once, at the beginning of hot weather.†

But though I have said many children would be as well without stockings, for a considerable time, I must remark, that this position requires some discretion in the application.—*Attention to Circumstances* should not only be the

* See the article, vol. 1. page 20.

† The propriety of this remark was more striking during former editions of this work, when the dress alluded to was different from what it has been of late, as well as took place later ; and to which it may, possibly, revert.

motto of physicians, but of common life, and we should be guided by it in regard to all general rules. For want of this caution in the present instance, tender children suffer exceedingly in severe winters, and are distressed with chilblains merely for want of proper covering to their tender limbs. I have seen a child of four years old, the daughter of people of fashion, (who I know will pardon my mentioning it) whose legs were covered with these sores up to the knee; and yet the lady could not be prevailed upon in time, to suffer stockings to be put on, because strong and healthy children are thought to be better without them.

We proceed now to the second Article under the head of *Non-naturals*,

The DIET of INFANTS.

New-born Infants certainly do not, usually, stand in need of any Food for several Hours after they are born; and if ever found expedient, should be of a light and aperient nature. Milk is certainly the most natural and the most light of all Food for Infants, and quickly passes out of the Stomach, being also, as it were, half-digested already. Instance of an Infant of nine months old nearly pining to death for want of the breast, and soon recovering perfect Health upon getting it. Substitutes for Breast-milk, and the modes of feeding Infants from the Birth, relatively considered, and the fittest Method pointed out. The Feeding-Pot is the most natural, and by far the best Contrivance, that hath been hitherto devised, and is equally pleasant to the Infant: whilst by affording some little fatigue to the Child, in the manner that Nature herself hath imposed, the Infant is not tempted to take too much at a time, as when fed by the Spoon. Objections to this light food considered, and demonstrated to be ill-

founded. Exceptions to general Rules are not to be advanced as solid Arguments. A change to be made from time to time, to render the food more nutritive as Children grow older : when having acquired more Strength, and gotten two or more Teeth, they become better able to bear it ; and will be benefitted by it. Time and Manner of feeding Infants. The Diet of Infants and young Children, when ill, must be carefully adapted to the Nature of their Complaints ; their Circumstances and Constitution. Acidity, and disposition to Wind, and their Remedies considered. The former is less hurtful than is commonly imagined, because natural ; and the latter less so as infants grow older.

MEAT and DRINK.

THIS is, indeed, worthy of ample discussion ; having as yet been considered only in relation to the expediency of breast-milk, where that may anywise be procured.

In the first place it may be remarked, that although an infant be suckled by its own mother, (in which case the coming of the milk must be waited for) it certainly can stand in no real need of any food, till the time nature will bring milk into her breast, supposing the child be laid to it in proper time ; which, doubtless, ought to be as soon as she may, by sleep or otherwise, be sufficiently refreshed to undergo the little fatigue that an attempt to suckle may occasion. This method, however unusual with some, is the most agreeable to nature, and to observations on the irrational species, who in many things are the very best guides we can follow. And herein, I am constrained to differ from a late writer whom I have more than once quoted with approbation ; for by means of putting the child early to the breast, especially the first time of suck-

ling, the nipple will be formed, and the milk be gradually brought on. Hence much pain and its consequences, will be prevented, as well as the frequency of sore nipples,* which in a first lying-in, have been wont to occasion no inconsiderable trouble. But should this, or even an abscess take place, they are both far less distressing under proper management than has been usually imagined :† and what is of great importance, the latter is attended with a negative good ; no lady, I believe, having in any season, been seized with lying-in fever, who had a milk-abscess at the time.—However, should the mother be unable to suckle, and a wet-nurse be engaged, there can be no harm in putting the child to the breast, after it has taken a dose or two of the opening medicines ; or should it be brought up by hand, and not easily kept quiet, a spoonful or two of water-gruel, sweetened with a little Lisbon-sugar, or honey, may be given for this purpose, which will usually set it asleep ; after which it will be ready for whatever culinary food shall be thought proper for it.

And on this article, a vast croud of absurdities open upon us at once ; and many of them with the sanction of

* It may be proper to notice in this place, the colour sometimes given to an infant's stools, from a little blood it has repeatedly swallowed, when the nipples of the suckling mother have been very sore ; a circumstance, indeed, that does not often occur, but has been alarming for want of the true cause being understood. The stools in this case will be of a strange blackish colour, such as have been noticed under the head of fever, and very similar to the first stools of new-born infants.

† See the author's *Surgical Tracts* before mentioned, in which the *milk-abscess*, and *sore nipples* are fully considered, and a successful, and easy method of treatment pointed out. Amongst other little contrivances to obviate the latter evil, as well as otherwise assist the suckling mother, the vegetable nipple-cover, sold at *Bacon's* in *Oxford-street*, is worthy of trial, where the evil is not so great as to require the assistance of that contrived by *Mrs. Relf*.

custom and authority. I shall first advert to the thickness of the food : and it has, indeed, been matter of wonder, how the custom of stuffing new-born infants with bread could become so universal, or the idea first enter the mind of a parent, that such heavy food could be fit for its nourishment. It were well if the fond mother, and all well inclined nurses had more just ideas of the manner in which we are nourished ; and especially, that it is not from the great quantity, nor from the quality of the food, abstractedly considered ; since the inhabitants of different parts of the globe are equally healthy and long-lived, who feed on the most opposite diets. Parents, one should think, may very easily conceive, that our nourishment arises from the use the stomach makes of the food it receives ; which is to pass through such a change, called digestion, as renders it balsamic, and fit to renew the mass of blood, which is daily wasting and consumed. An improper kind, or too great a quantity taken at a time, or too hastily, before the stomach has duly disposed of its former contents, prevents this work of digestion, and by making bad juices, weakens instead of strengthens the habit ; and in the end produces Worms, Convulsions, Rickets, King's-Evil, Slow-fevers, Purging, and general Decay.

Nature, it should be considered, has provided only milk, for every animal adapted to draw it from the breast, and that of women is certainly amongst the thinnest of them ; but at the same time, far more nutritive than bread, and, probably, than any other milk, as it contains a greater proportion of saccharine matter,* which is

* The sugar, or salt, of human-milk is one third more in quantity, and its extract, or solid contents, is double as much as in cows. See the *Table* at the end of the *Introduction*.

thought to be that quality in all our food which renders it nutritious. It is true, bread,* as it requires more digestion, will lie longer on the stomach both of infants and adults ; and hence, probably, because it satisfies the present cravings, it has been conceived to afford a greater proportion of nourishment ; though mixed up only with water, as it too frequently is, it is far less nutritive than has been imagined : for the water affords no nourishment, and the bread is but imperfectly digested. Children ought to be frequently hungry, and as often supplied with light food, of which milk is really the most nourishing that we are acquainted with. This could never be doubted, but from its passing so quickly out of the stomach ; on which account, indeed, though not the properest food for adults, employed at hard labour, and many hours from home, it is the fittest of all for the sedentary life of a tender infant ; who, it has been said, cannot get the whole of that nutriment contained in bread or other solid food, which the stomach of the adult is able to extract. It must have been for want of attention to this consideration, that Dr. ARMSTRONG has said so much in favour of bread and other thick victuals ; which, by the bye, he began to make use of for his own children, (from it success in whom he ventured to recommend it,) at the age of six or seven months ; a matter very different from cramming an infant with it almost as soon as it is born. For every thing the stomach cannot digest, it has been said, may be justly considered as a poison ; which if not puked up, nor very soon voided by stool, may occasion sickness, gripes, what are called inward fits, and all the train of bowel complaints, which may terminate in one or other of the evils just men-

As

* Under this term is comprehended rusks, biscuits, and every similar preparation of baked flour.

tioned. And this I see almost daily exemplified; new-born infants after being so fed, and seemingly thriving upon it for a short time, suddenly falling into a purging, or being carried off by convulsions.

Milk itself, (like all the other animal juices) is produced from food taken in by the mother, and is the richest part of it. It is in her stomach that the aliment is dissolved, or digested, which by a combination of powers in the appropriated parts for preparing the chyle, is so far animalized as to be converted into a kind of white blood; from whence it has been observed, every animal body is daily recruited. Hence it is very apparent, that previous to an infant having acquired strength enough to convert solid food into this wholesome chyle, or white blood; the parent by this wise substitution in nature, has, in a great measure, previously, accomplished this work for the infant she is to nourish. During infancy, therefore, both nature and reason most clearly point out the expediency of a milk diet;* but how long it ought to be persevered in, or infants wholly confined to it, is not easily ascertained, and will be further considered in its place, with a latitude that the question demands. There is a period in life, indeed, to which this nutriment is more particularly adapted; both experience and theory demonstrating it to be more suitable to young people than adults; and it has been observed, that it does not appear, that the stomach of the cow will produce the same change upon milk, as that of the calf

* Whether the parent be able to suckle her own child, or that office be performed by a hired-nurse, is not here particularly considered. The design is only to prove that milk is in general the most proper food for an infant. Whether that, indeed, be prepared by its own mother, a nurse, or by such animals as the cow, or the ass, is equally to the purpose; and where the former cannot be had, the best, and most natural substitute, should be provided.

does, which is, therefore, constantly made use of in dairies, for separating the curd from the whey.

It can scarcely be improper before I entirely quit the article of suckling, to relate a recent instance, and a remarkable one out of many, as a proof of the degree to which infants may pine for the breast, even to the great hazard of perishing for the want of it, where the real cause of the disease is not suspected. This little history will likewise further serve to illustrate the preference of human-milk which has been so strongly insisted upon.

The little infant alluded to was very healthy when it was three months old, and was then weaned on account of the illness of the wet-nurse ; but soon afterwards ceased to thrive, and had continual bowel complaints. At the age of nine months I was desired to visit it, and was informed that it slept very little, was almost incessantly crying, and had for many days brought up nearly all its food ; was become very rickety, and had all the appearance of an infant almost starved. Trial had been made of every kind of food, except the breast, and the child been many weeks under the care of an experienced apothecary ; was constantly in a state of purging, and seemed to have been just kept alive by art.

On the first sight of the child, and upon the very face of this account, it was very evident that the infant was not nourished by the food it received, and that the complaint lay wholly in the first-passages. But reduced as it was, I had little expectation from medicines, and therefore gave as my opinion that either the child still pined for the breast ; in which case, I doubted not, it would take it, though it had now been weaned six months ; or, that it ought to be carried immediately into the country, and be

supported for some time only upon asses milk, or perhaps be fed, now and then, with a little good broth.

My advice being taken, a good breast was procured, which the infant seized the moment it was put to it, and after sucking sufficiently, soon fell asleep for several hours; waked without screaming, and took the breast again. It is sufficient to add, that the child ceased to puke or be purged, and recovered from that hour; and after sucking eight or nine months longer, became in the end a fine healthy child.

Although this instance has something extraordinary in it in respect to the length of time the child had been taken from the breast; and though infants are generally completely weaned in six or seven days at the furthest; yet are similar occurrences met with, differing only in degree, it being no uncommon thing for children, when ill, to take to the breast again, after seeming to be thoroughly weaned for three or four weeks. And this circumstance is the more worthy of notice, as it sometimes is a very fortunate one; and should encourage parents to make the trial whenever infants newly weaned, may be seized with any complaint, under which a return to the breast may be useful. Such, particularly, is the whooping-cough; under which I have known a child of more than a year old, and apparently thoroughly weaned for a month, take to the breast of a stranger very cheerfully, in the presence of its former nurse, with the precaution only of leading it to make the first attempts during the night. Such children for the first few days turn away from the new wet-nurse to their former one, as soon as they have satisfied themselves at the breast, and go back to the nurse again very readily whenever they find an inclination to suck.

To return ; I am free then to lay it down as an axiom, that milk ought to be the chief part of the diet of infants for a certain time, whether it be breast-milk or any other, and that it will prove sufficiently nourishing for nineteen out of twenty ; I might perhaps say ninety-nine out of a hundred : exceptions, I believe, there may be, but much fewer children would perish if no exception were to be made, than by absurdly rushing into the contrary extreme. But supposing a very strong child, at the end of the month, really not satisfied with milk only, and always craving the moment it has been thus fed, it, doubtless, may have a little boiled bread added to it, two or three times in a day ; but I should be very cautious of extending it further.* In the case, however, of an infant at the *breast*, if it be always craving as soon as it is taken from it, the occasion of its craving will generally be found to be in the nurse's milk ; previously therefore to allowing a more solid food, the quality of the milk, as well as the state of the nurse's health should be inquired into, and the milk be changed if its goodness be suspected ; and should its quantity be found deficient, its quality is always proportionally affected. Perhaps where bread and milk is allowed, whether at a very early or a later period, it would be an advantage to boil a piece of roll, together with the upper crust, in a good deal of water, till it is very soft, by which means the bread will part with some of its acescent quality ; the water should then be strained off, and the bread

* "In *Italy, Holland, Turkey*, and through the whole *Levant*, children are "rarely allowed any other food than the breast-milk, during the first "year : " (BUFFON) and the Savages in *Canada* suckle for four or five, and often for six or seven years.—In some extreme northern climates, (as hath already been remarked) we know they can have no other food, for a long time ; and yet there, we are told, the death of an infant is as rare an event as that of a suckling mother.

mixed up with the milk, which ought to be boiled if the child is very young, or inclined to a purging.

It would, I perceive, lead me beyond all bounds to enter further into this matter ; and I should not, indeed, have said so much on the subject, had I not had it much at heart to persuade those whose affections would ever lead them right, were their judgments not previously perverted—I shall only add, that infants certainly ought not to be fed lying on their backs, but sitting upright, howsoever contrary to long established usage ; as they will in this position swallow their food more easily, as well as more readily perceive when they have had enough. So also children nourished at the breast ought to be withdrawn from it for a few moments, especially just after waking from a long sleep ; for hereby, besides other advantages, much undue labour to the stomach will be prevented, as well as enabling it to retain what it has received ; a part of which is otherwise frequently thrown up.

IF milk be the proper food for infants brought up by hand, the next inquiry will naturally be, what milk is best ? and what is the fittest instrument for feeding with ? And it is from long experience, as well as from reason and analogy, that I venture again to recommend the ingenious contrivance of the late Dr. HUGH SMITH, which I shall presently describe. The milk he likewise advises, is cow-milk in preference to all others, as being the most nourishing, and therefore, in general, the most proper ; and I wish to refer the inquisitive reader to such other reasons as the Doctor has given ;* to which I can add nothing but my own experience of their validity. To the milk should be added a little thin gruel, or barley-water, which form a ve-

* See his treatise on the Management of children, in a series of letters addressed to married women.

ry smooth and pleasant nourishment ; the latter of which is the more proper for infants whose bowels are too open. A few weeks after birth, (and I think in general the sooner the better) instead of the barley-water or gruel, there should be mixed with the milk a small quantity of a light jelly made from harts-horn shavings, boiled in water to the consistence that veal broth acquires when it has stood to be cold.* The design of the jelly is obvious and rational, at once calculated to render the food more nutritive, as well as to correct, in some measure the acescency of the milk ; this quality being thought to abound in the milk of different animals, in proportion to the quantity of vegetables on which they feed. And the milk of quadrupeds, we know, is produced from vegetable juices only, whilst breast-milk is formed by a mixture of animal and vegetable food. A little Lisbon-sugar may be added to this compound of jelly and milk, if the child be not inclined to a purging, or in that case a little loaf-sugar ; but the less of either the better. It will be proper to have the milk and jelly warmed separately, and no more at a time than may be wanted ; when it should be put into the pot ; which must be very carefully cleansed and scalded, at least once every day, and the spout be thoroughly rinsed, lest any sour curds should stick about it ; and to this end, it may be convenient to be provided with two.† At first the milk

* There is sometimes a difficulty in making this jelly, on account of the harts-horn being bad ; those who shave it, often mixing with it the shavings of trotters, which may, however, be distinguished by their brittleness. If the shavings are good, two ounces of them boiled very slowly in a quart of water to a pint, will make the jelly of a proper consistence.

† The objection made to this mode of feeding, that the pot may often be left foul, and therefore the food becomes sour, appears to me to be very far fetched ; since if nurses are not to be depended upon in matters

ought to be boiled, to render it less opening, but when the child is several months old, or may chance to be costive, the milk need only be warmed. If it be fresh from the cow, and very rich, a portion of water may be added to it, whilst the infant is very young. Indeed, it ought to be as new as possible, since milk, as an animal juice, probably contains some fine subtile particles, which evaporate upon its being long out of the body.

Though I have said cows-milk is usually preferable to any other, it will be conceived, that I mean for infants who are strong and healthy. Asses-milk, on the other hand, being more suitable for many tender infants during the first three or four weeks, or perhaps for a longer time, as well as for children who are much purged; as it is thinner and having far less curd than any other milk, it sits much lighter on the stomach, both of tender infants and adults; though in some constitutions, it is found to be too opening. And, perhaps, it may be inferred, from the very different proportion of cream, and of cheesy principles, that the milks of different animals contain, that Providence has rather considered the benefit of man than of the young of various quadrupeds; though, doubtless, the milk is likewise properly adapted to them.

In regard to the *mode* of feeding infants, I can say from experience, that for the delicate and tender, at least, the boat, the spoon, and the horn, are in no wise comparable

of cleanliness, and the sweetness of the food they are to administer, we can trust them in nothing, and infants must be continually suffering; their being a hundred particulars essential to children's health, in which servants cannot be always superintended, but must be entirely confided in.

Having been often sent to for a direction to the shops where the infant feeding-pot may be met with, I notice in this place that it is always kept at Mr. *Philips's* in Oxford-street, near Cavendish-square; *Storer's* in Piccadilla, near to Park-lane; *Huchins's* in Brewer-street, Golden-square; and at *Neale's Staffordshire-warehouse* in St. Paul's Church-yard.

to the pot ; which is so contrived, not only as to please the child by its resemblance to the nipple, and the milk coming slowly into its mouth ; but also to afford the infant some little degree of labour, in order to acquire the quantity it needs, (which the horn does not ;) by which means the food is also duly mixed with the bland secretions of the mouth ; which are necessary to digestion. The like little fatigue takes place in children nourished at the breast ; and by this mean it is, that infants, especially when very young, are not so apt to oversuck, as they are to be overfed by the boat or the spoon ; the food of which being sweet and pleasant, and requiring only the trouble, or rather the pleasure of swallowing, the child is tempted to take too much at a time ; whilst the nurse often forces down a second or third boat-full, in order to put a stop to the cries, which indigestion from the former may have occasioned.

Some writers have detracted from the advantages of this mode of feeding, by observing, that infants may be fed as slowly and cautiously by the spoon : but the fact is, that this is, indeed, one of the things in which servants, in general, *cannot* be depended upon, whilst there are such temptations to the contrary, (at least I have not met with many who could ;) * nor will children, indeed, oftentimes endure slow feeding, if they can anywise prevent it, but will be screaming all the while, instead of being kept quiet by their food : though the hope of quieting them, it has been observed, is frequently the nurse's sole motive for

* Amongst the exceptions I have met with, I was lately greatly pleased with a nurse, who said, " I always let my children *ask* for their food ; " which she pertinently explained by saying, I do not feed infants because they cry : but if, after fasting a reasonable time, they begin to moan, I endeavour to amuse them till they hunt about them, and repeatedly form their lips in a certain way, that assures me it is a want of food only that makes them complain.

giving it. But when an infant *can* get it only slowly from the pot, and yet is itself all the while employed in the business, it will be agreeably diverted while it is acquiring its nourishment, in the same manner that it is amused at the breast.

The pot is formed in the shape of an Argyle, or gravy-pot, with a long spout, rising from the bottom, and pierced only with a few small holes at the end ; which is to be covered with a piece of vellum, or parchment. This covering should be left loose a little way over the spout, which will make it soft and pleasant to the infant's mouth ; and it has been said, is nearly as acceptable to many children as the breast, as I have often been a witness.

This manner of feeding is not only pleasant to the child, but very convenient to the nurse, and the food equally at hand in the night as the day ; being easily kept warm by a lamp, or even in the bed. The only objection I have ever known made to it by those who have made trial of it, is that which I esteem one of its greatest recommendations ; which is, that children thus fed, are frequently hungry, that is, they are what nature designed them to be ; this food sitting light on the stomach, and being easily digested, like the breast-milk, children often need a supply of it.

I shall just mention another popular objection to the plan here recommended. This is taken from some fine children we meet with, who have been brought up by hand from the birth, and fed with thick bread victuals all the day long, whilst we every now and then see some of those who have been debarred that sort of diet, weak and tender till they become a year or two old. Not to stop long to observe, that this objection militates equally against children living on the breast, though that is the food nature

has designed for them ; it will be sufficient to say, that it is only strong children who may be bred up almost anywise, that can at all digest thick victuals ; that there are others who cannot endure the least thickening in their food, nor any kind of bread ; and that weakly infants, who are scarcely preserved by the most careful attention to their food, would soon be hurried out of the world if that attention were withheld. And this reminds me of an observation of a very judicious friend in the north of England, which greatly surprised me at the time, as I had never met with any observation from him before, the propriety of which was not exceedingly obvious and convincing. Upon seeing one day a number of fine children, he with some shrewdness observed, that we did not seem to have so many weakly half-starved children in the streets of *London*, as he met with in the country ; and that he had often before made the like observation in his journies to town. It appeared to me that my friend must lie under some mistake, and I accordingly mentioned my surprise at such a remark coming from him ; when he removed my astonishment by insisting on the fact, with the following obvious solution of it. I apprehend, says he, there are scarcely any but fine and strong children in *London*, who live to be two or three years old ; the weaker ones, for want of good air, and exercise, sinking under their infirmities ; whilst the tenderest children in the country by being turned out to crawl in the wholesome open air, or by sitting at the door almost all the day, escape the fatality of your gross air and hot nurseries, and survive the trying periods of infancy, though some of them remain weak and rickety till they become old enough to endure severe exercise ; which is alone able to strengthen them effectually.

vive

I HAVE no doubt of there being certain exceptions to the mode of feeding I have recommended, that are worthy of more attention ; although very few have actually come to my knowledge, and though I am persuaded, that as a *general* plan, it is both a natural and salutary one. Instances may be met with, however, of some very robust children who may require a more nourishing, and perhaps somewhat more solid diet ; and the state of bowels in others, will call for a greater variety of food, and of a kind not calculated to be administered in the mode here recommended, as hath been already noticed under the head of purging. On these accounts, I would offer another observation or two in regard to the thicker kind of victuals ; and first, that in families accustomed to bring up their children by the spoon, I think I have found a greater number of infants well nourished by the *French*, or the *Uxbridge-roll* boiled in water to a jelly, and afterwards diluted with milk, than on any other kind of pap. From such families I have likewise learned, that some *change* in the food is, however, frequently necessary ; and will be indicated by the degree of relish which the infant may discover towards different kinds of food, as well as by their effects on the bowels ; though the child be not supposed to be at such times really unwell. Such changes principally respect the *different kinds* of bread, or other farinaceous substance usually mixed with milk ; and sometimes the substitution of broth, for a few days, in the place of the latter.*

When children brought up by hand become four or five months old, especially if strong and healthy, they may,

* More precise directions, in the case of disease, will be noticed further on. See also the article *Purging*, Vol. I.

doubtless, be allowed a thicker kind of victuals, because their digestive powers being by this time become stronger, they are able to extract good nourishment from it ; though this change is not equally necessary for children brought up at the breast, at least, such do not require it so early ; breast milk being more nourishing than any other. The first addition of this kind, however, whenever it becomes necessary, I am persuaded, ought to be beef-tea or broth, which with a little bread beat up in it in the form of thin panada, will be at once an agreeable and wholesome change, and prepare them for further advances in this way. But as this cannot well be given oftener than once or twice a day, (unless where other food is found to turn acid on the stomach,) a little bread and milk may also be allowed them every morning and evening, as their strength and circumstances may require. A crust of bread likewise, as soon as the child has a couple of teeth, will amuse and nourish it, whilst it will assist the cutting of the rest, as well as carry down a certain quantity of spittle ; a secretion, it has been said, too precious to be lost, especially when the digestive powers are to be further employed. As the child grows older, to broth may be added light puddings, made of bread, semolina, tapioca,* or rice ; salep boiled in milk, and such like. But to feed a child with veal, chicken, or other animal food, before nature hath given it teeth enough to chew it, howsoever small it may

* The best *tapioca*, I believe, comes from the *French West-India Islands*, and is called by the general term, *farine*. It is in very common use also in our *West-India Islands*, where it is made into thin cakes, and is called *cassada* : in this form, therefore, it is most likely to be genuine, and may be preserved for a very long time.—Two ounces of tapioca should be boiled slowly in three pints of water, to a quart, and be then passed through a sieve ; a little milk being added, or not, as circumstances may direct.

be minced in the kitchen, is altogether unnatural, and can prove nourishing only to such children, as from the great strength of their natural constitution, need least of all the assistance of art. It is by degrees only, that children ought to be brought to such food ; which at a certain period, indeed, is as necessary as a light diet at an earlier age : for it is certain, that the error of some parents runs the contrary way, and their children are kept too long upon a fluid, or too slender diet, whence their bellies and joints become enlarged, and the bones of the lower extremities too weak to support them, at an age when they want more exercise than their nurses can give them. For when they go alone, not only is a little light meat and certain vegetables to be allowed them once a day, or alternately, with broths, puddings, or blamange, white-pot, custards, and such like kitchen preparations of milk ; but even a little red wine is beneficial to many constitutions. This will not only promote digestion, and obviate in great measure a disposition to worms, but by strengthening the habit, will also render children less liable to become rickety, at the very period they are very much disposed to it. Such a plan is the rather insisted upon, because some parents the most desirous of doing right, fall into a like mistake even in regard to older children, whom they keep too low, allowing animal food only every other day to those of four or five years of age ; which, unless in very particular habits, is surely an error, at least in this damp climate ; and disposes our children to scrofula. But so many little infants, on the other hand, fall a sacrifice to the use of indigestible food under the age of six months ; being carried off by vomiting, purging, or fits ; that whoever would preserve them over the most dangerous period

of infancy, cannot too cautiously attend to their diet at this time.*

It is a common direction in works of this kind, to point out the properest times for feeding an infant brought up by hand, and to direct how often it may safely be fed. I shall just observe therefore, that no adequate rules can be laid down on the occasion; and on that account none ought to be attempted, since none can be sufficiently comprehensive; and I am happy at not being at all at a loss in this instance, wherein writers have differed so widely. For, infants not usually taking too much at a time in the manner of feeding that has been recommended, on account of the little fatigue which, it was observed they undergo in acquiring their nourishment, may generally be permitted to partake of it as often as they might of the breast. This is, however, by no means the case, when children are allowed to eat thick victuals, and are fed by the spoon, by

* The average of births annually, within the bills of mortality, for ten successive years, as taken a few years ago, was 16,283; out of which were buried under *five* years of age 10,145, and from amongst these 7,987 were under *two* years. So that almost *two thirds* of the children born in London and its environs, become lost to society, and more than *three fourths* of these die under *two years of age*.—This proves how hazardous a period that of infancy is, in this country; and I am sorry there is so much reason to be persuaded, that the want of air, exercise, and a proper diet, has added, unnecessarily to its dangers; there being no such mortality in barbarous nations, whose inhabitants live in a state of nature; nor in any part of the known world, amongst other young animals.—Although these, and other calculations I have seen, should be found ever so accurate, it is a pleasant reflection, (to whatsoever the circumstance may be owing) that since the time they were taken, the proportion of deaths at the early period above alluded to, has been very considerably decreasing; and the writer has noticed for some years, that the average of deaths according to these bills has not been more than *six in sixteen*; which is but little more than *one third*.—See the *Scale* at the close of the *Introduction*.

which, it has been said, they are always in danger of taking too much ; an evil that cannot be too often pointed out.

BEFORE I close this head of the management of children, perhaps the most important of all, I shall point out the most suitable diet under the different complaints to which they are most liable. But after the hints that have been thrown out through the former part of this work, the directions need not to be very ample and precise ; I shall, therefore, only observe, that as light a diet as possible is usually called for when a child is unwell, let the disorder be almost whatever it may. If a fever should accompany it, the child will require still less food than in any other complaint ; but plenty of drinks ; which may also be so calculated as to furnish nearly as much nourishment as the infant will require, and may in summer-time be given cold. Such are barley-water, water in which a crust of bread has been boiled, and thin tapioca ; or if a purging attends, rice, or arrow-root water ; and a drink made of harts-horn shavings, with a little baked flour in it. In this complaint, wherein more nourishment, or a diet more nutritious, is required to support the child than under most others, (if not attended with fever,) baked flour mixed up with boiled milk, (as mentioned under the article of purging)* is admirably calculated both as a proper diet and medicine. A like suitable food, forming a pleasant variety, may be made of a table-spoonfull of ground rice boiled with a little cinnamon, in half a pint of water, till the water is nearly consumed ; a pint of milk should then be added to it, and the whole simmer for five minutes : it is afterwards to be strained through a lawn sieve, and made palatable with a little sugar. In this way, or joined with arrow-root, milk

may generally be made to agree very well even when the bowels are purged; and when it does so, proves exceedingly nourishing. Should it chance to disagree, owing to the great acidity of the first-passages, good beef-broth ought to be made trial of, which may be thickened with baked flour, instead of bread, and makes a very pleasant diet. Likewise the patent-sage, properly boiled, adding to every half-pint a large tea-spoonfull of red Port wine, for the use of infants of a week old; cautiously increasing the quantity of wine, as they grow older. A lage family of children, whose bowels had been continually disordered in the use of various other food, has been brought up by this, which was continued till they had four, or more teeth, and were able to partake of puddings, and other common food. Young children in this country so seldom tasting wine, it may seem strange to advise it for infants in the month; but it will be recollected by some readers, that the practice is very different in wine-countries, where it is often exhibited as well for food as medicine; and is one of the best cordials for infants, as I have experienced in various instances.

PERHAPS much more has been said on the subject of acidity, by some writers, than really ought to have been; or it may at least be suspected, that a proper attention has not been paid to the peculiar circumstances of infants, who are all much disposed to it. Acidity when injurious, is, probably, oftentimes rather an effect, than the first cause of the disorders of infants. It seems, indeed, to be natural to them, arising alike from the weakness of their organs of digestion, and the nature of their food; though there is no doubt, that their complaints are afterwards aggravated by an abounding acid, or rather, probably, from this natural acid becoming morbidly acrid, through over-

feeding, and other errors in their diet, or from its being accidentally confined in the first-passages, as hath been noticed in the *Introduction*. Nature, however, seems to have designed the food of infants to be acescent; and till the body be disordered, and digestion hurt by one cause or other,* this quality of their food is not likely to be very injurious to them; and probably, is far less so, in a general way, than food of a very alkaline nature would be, with a like weak digestion. It is true, indeed, that as many similar complaints in adults, who feed on different diets, will have their varieties, and each have some relation to the different qualities of their food; so it is not to be wondered at, that the complaints of infants should be attended with wind and other marks of acidity, which in adults are usually the least hurtful of all; and are, indeed, for the most part, pretty easily corrected in children, while that is the only complaint. When they are much troubled with wind, therefore, it cannot be wrong to mix some carminative seeds, or the waters distilled from them, now and then, with their food; such as sweet-fennel, or cardamom-seeds, very finely bruised; but dill-water is that I have generally recommended, and being a liquid, is always ready to be added to the food, without loss of time. But though such an occasional addition to their food is often exceedingly useful, I cannot help speaking against its being made a constant practice; by which children not only suffer when by accident, or absence from home, it has been neglected, but it destroys the very end for which it was used, by the stomach becoming accustomed to it.

* Such cause, it has been observed, may be an over quantity, or too sweet a food, or a heavy and indigestible diet; which, indeed, prove more frequent occasions of a distempered acidity, than any thing else.

Intro

Children, however, become less subject to wind and hurtful acidities as they grow older, and the stomach gets stronger, as it is called. But should these complaints, notwithstanding, continue obstinate; two or three grains of the fine powder of chamomile flowers, or a few drops of the tincture of columba, mixed in water, and warmed with a little ginger, will prove exceedingly bracing to the stomach and bowels, and render them less disposed to acidity. Exercise also according to the age and strength, is a grand preservative and remedy; and especially making infants break wind after sucking or feeding. And this may generally be effected, as every nurse knows, by raising the infant up, and gently tapping it on the back, or rubbing its stomach, before it be laid in the cradle to sleep.

I have only to add further, that when, through an abundant acid, milk is frequently thrown up curdled, a little prepared oyster-shell powder may be added to it, or a very small quantity of almond-soap, or of common salt,* which will not at all injure the flavour, and will prevent this change happening too soon in the stomach.

It will be proper to include under this head, some observations relating to Wet-nurses, and to Weaning.

On the CHOICE of WET-NURSES.

Directions relative to Wet-Nurses, especially in regard to their Milk. Directions respecting their Diet, and other circumstances, relative both to themselves and the Infant.

THE first and essential point in a wet-nurse is, doubtless, that her milk be good; to which end it is

* It is a very great mistake, though a common one, to imagine that salt will dispose to the scurvy. This mistake is founded upon the bad

necessary she be healthy and young ; not of weak nerves, nor disposed to menstruate whilst she gives suck ; and that her bowels be rather costive than otherwise. Her nipples should be small, but not short, and the breast prominent, and rather oblong than large ; such distention being rather from fat, than from milk. The chief marks of good milk, are its being thin, of a bluish colour, rather sweet, and in great quantity ; and if under four months old, it is, doubtless, an advantage ; and, certainly, ought not to exceed six. And this is of more consequence, than it seems of late years to be thought ; for after this time it generally becomes too thick for a new-born infant, unless very robust, and is not easily digested. On this account, though an infant may not be really ill, I have frequently observed it not to thrive, though it has taken great plenty of such milk. When the milk is of this age, there is also a greater chance of its failing before the infant is of a proper age to be weaned.—A wet-nurse ought, furthermore, to have good teeth ; at least her gums should be sound, and of a florid colour. She must be perfectly sober, and rather averse from strong liquors ; which young and healthy people seldom need in order to their having plenty of milk. She should be cleanly in her person, good-tempered, careful, fond of children, and watchful in the night, or at least, not liable to suffer in her health from being robbed of her sleep. And I cannot help adding here, that she ought not to be disposed to prescribe medicines ; otherwise, something improper can scarcely fail

effects of the long use of salted-meats ; but salt taken with fresh meats is quite a different thing. And I shall just remark, that salt and water is one of the best lotions for the mouth, and preservative from the tooth-ach (with which many pregnant women are tortured) and also makes an excellent wash for the face ; which will remove some kind of pimples without any risk of injury to the constitution.

at one time or other to be administered, and perhaps to the no small injury of the child.

THE diet proper for wet-nurses is likewise worthy of notice. And here, an invariable attention should be paid to natural constitution and habit. Due allowance being made for these, it may be said, that milk, broth, and plain white soups, plain puddings, flesh meats of easy digestion, and a due mixture of vegetables, with plenty of diluting drinks, and such proportion of more generous liquors, (spirits excepted) as the variety of circumstances shall direct, will be a proper diet for suckling women. Respecting vegetables particularly, the strictest regard should be had to constitution and habit. Wherever vegetables, or even acids, uniformly agree with the suckling parent or nurse, I believe a healthy child will rarely suffer by her partaking of them; but on the contrary, the milk being thereby rendered thin and cooling, will prove more nourishing and salutary, in consequence of being easier of digestion. To these regulations should be added an attention to exercise, and frequent walks in the open air: to these, hired wet-nurses have been previously accustomed, and are therefore sure to suffer by confinement to warm rooms, equally to the injury of their own health, and of the infants they suckle.

I shall close these general directions with the following from STRUVE *on the Education and Treatment of young Children*; in a view rather to suckling parents of a delicate constitution, than to hired wet-nurses. "Let two parts of milk rise over a gentle fire; and add one part of well-fermented beer, previously boiled. This beverage is to be taken cold; and has been attended with the greatest advantage by women who were already so exhausted, that they thought it impossible to continue suckling their children; they became replenished in a short time, and recovered their strength, with a continued increase of milk."

On WEANING of INFANTS.

Proper age for Weaning Children. No Preparation, in general, is necessary: nor Food, of any kind, afterwards, during the Night: being as unnecessary, as generally hurtful. Their food also should at first be very light, and easy of digestion.

A PRINCIPAL article under this head, is the age at which it should take place; and this may be gathered from the attending circumstances. A child ought to be in good health, especially in regard to its bowels; and, doubtless, ought first to have cut, at least, four of its teeth. This seldom takes place till it is near a twelvemonth old; and it may be observed, that healthy women who suckle their own children, and take proper exercise, do not usually become pregnant again in less time. We shall not be very wide, therefore, of the order of nature, if we say that children in general ought not to be weaned much earlier than this; making proper allowances, however, for all just exceptions to *general* rules, and especially as far as teething may be concerned.—Small and weakly infants, if rather feeble than ill, are oftentimes benefited by being weaned; they should therefore, about this age, be taken from the breast, instead of being, on account of weakness, nourished much longer in that way: a trial of such a change should, at least, in most instances be made.

Any preparation for weaning is generally needless, and especially that of feeding children before-hand, though made a common excuse for stuffing them whilst at the breast with indigestible food. I have seen many mothers needlessly torturing themselves with the fear of their children being weaned with difficulty, because they could not

get them to feed when eight or ten months old, and still at the breast ; but I have always found such children wean, and feed just as well as others, when once taken wholly from it. There is certainly no ground of fear in that respect, and but rarely any difficulty ; and I should be happy if any thing I can say from experience, may be the means of lessening the trouble of parents on this occasion, as well as counteracting, if possible, a sentiment encouraged by several writers, which has, I believe, no real foundation in fact, but has too often been productive both of much inconvenience and mischief. But I do not by this intend to say, that a child of eight or ten months old would be injured, or oftentimes not benefited, by a little food once a day of a more solid nature than the breast-milk, as, indeed, I have intimated before ; but when children happen to be weaned much earlier, and are fed almost from the birth merely with that view, (which is often the case) they may be essentially injured by it.

It has been remarked, that infants who are indisposed to feed at all while at the breast, are nevertheless, weaned, and feed, just as well as others, when once taken wholly from it. I have, however, said there may be, in a few children, a little difficulty for the first two or three days under any circumstances ; but it is remarkable, that the instance attended with the greatest aversion to common food, that I ever witnessed, was in an infant who had been allowed a little chicken-broth once a day for two months before the weaning was entered upon. This child was very healthy, slept well, and scarcely cried at all upon being taken from the breast, and yet would not receive even the food it had been accustomed to ; so that for six and thirty hours, it continued averse from every thing that was offered to it, though it appeared in very good humour. After

the second day, however, it took a moderate breakfast, and in a little time it fed as readily as other weaned children.

Under such circumstances, if the weaning has been committed to the wet-nurse, or she be still in the house, it will be proper, that strict inquiry be made, and the nurse be watched ; there being instances of such hankering after the breast being kept up, by her occasionally indulging the child in that way. It may be further observed, that if the infant be in the least degree costive, a little magnesia and rhubarb should be administered, which besides opening the bowels, will tend to create an appetite. Such infants also, where there are more young children in the family, should sit at table with them when taking their meals ; as they will thereby, through mere imitation, be disposed to take food.

WHEN the weaning is once entered upon, a great part of their food ought still to be of milk, puddings, broths, and but little meat ; and every kind of food, and even drinks should be prohibited in the night, even from the first, supposing them to be weaned at a proper age.* The mere giving them drink, even only for a few nights, creates the pain and trouble of two weanings instead of one ; and if it be continued much longer, it not only breaks the rest, but the child will acquire a habit of being fond of drinking : the consequence of which very often is a large belly, weak bowels, general debility, lax joints, and all the symptoms of rickets. The child need only be fed the last

* The late *Dr. Hunter*, a man, it is well known, of severe sobriety, used at one time to recommend at his lectures to administer on the first night of weaning, a little sack-whey, diluted with barley-water : this, he used jocosely to say, makes infants a little drunk ; they all like it, and afterwards go to sleep very comfortably.

thing before the nurse goes to bed, which may generally be done without waking it : and whilst the child seems to enjoy this sleepy meal, it becomes a most pleasant employment to the nurse, and much more to a mother, from observing how greedily the child takes its food, and how satisfied it will lie for many hours on the strength of this meal ;—the mention of which naturally leads to the next Article proposed.

SLEEP and WATCHING.

Infants should be amused in the Day-time ; that their Sleep may be properly regulated. Their Position also should be attended to. Reflections on the Use of the Cradle : whose Motion is safe and natural, and certainly conduces to Sleep.

AFTER what has been already advanced on this article, under the head of their Complaint,* only a few observations will be necessary in this place ; and first, that healthy children sleep a great deal for the first three or four days after they are born, probably from having been previously accustomed to it. They ought not, however, to be suffered to continue this habit in the day time, to the degree some children are permitted, but should be gradually broken of it ; and indeed if not indulged, they will not be so much disposed to sleep as is generally imagined, and will therefore take more rest in the night, which is mutually beneficial to the child and the mother, if she be within the hearing of it ; and especially if she suckles, will be less disturbed at a time when she particularly requires this refreshment.

* Vol. I. page 33.

Therefore, when infants are sleepless in the night, they should be kept more awake, and have as much exercise as possible in the day time ; which though they be ever so young may be pretty considerable, (as will be directed more at large in its place,) by playing with them, or dandling on the knee, and otherwise amusing them, and when older, by every kind of exercise they can bear. The child, if healthy, will soon contract a habit of being very much awake while it is light, through that lively and restless spirit peculiar to infancy ; and by this means, another evil will be very much avoided, that of often laying a child down to sleep in the day time, for hours together, loaded with a thick dress, and covered besides with heavy clothes in a soft cradle, or bed.

But though I am confident these cautions will have their use, I am equally satisfied that many children have much less sleep than they require ; but then this deficiency is chiefly in the night, and is often the consequence of some complaints which the child labours under. Upon these, however, sufficient has been said in the former volumes ; to which therefore the reader is referred.

Before I quit this article, it may be remarked, that the custom of constantly placing infants on the back, whether in the cradle or bed, is very improper ; for by this means, the superfluous humour secreted in the mouth, which, in the time of teething especially, is very considerable, cannot be freely discharged, and must fall down into the stomach, where its abundance occasions various disorders.* Infants should therefore be frequently laid on one side, particularly the right, as favourable to the stomach getting easily rid of its contents ; to which side also children, when strong enough, will instinctively turn, if not pre-

See vol. I. page 8.

vented by the weight or confinement of their own clothes, or those of the cradle, or bed. The chief apology for all which, is a fear of the infant's falling, or turning on its face ; but this is rather an apology for the neglect of that necessary attention to infants, which whenever it can be commanded, should never be spared them.

It only remains, under this article, to say something of the Cradle, which most writers have spoken against. I believe, there is no doubt but the custom of laying children down awake, and rocking them in a cradle in the day-time, or at seven or eight o'clock in the evening, when they are to go into their night's sleep, as it is called, may be an occasion of making them more wakeful in the night, or at least may cause them to expect that kind of motion whenever they awake. But yet I cannot help thinking, there is something so truly natural, as well as pleasant, in the wavy motion of a cradle, (when made use of at proper times) and so like what all children are used to before they are born, being then suspended and accustomed to ride, as it were, or be gently swung in a soft fluid, upon every motion of the mother, and even during her sleep, from the effects of respiration ; that, always wishing to follow nature as I do, I cannot, on the whole, but give an opinion rather in favour of the cradle. It is, at least, amongst the *little* things in which we may harmlessly err, and in which every mother may therefore be safely guided by her own opinion, or even by her feelings. And if the child in consequence of being sometimes rocked to sleep in the day-time, shall expect it when it awakes in the night, it will not be very difficult to find a substitute for it ; and indeed parents seem, as it were, instinctively and mechanically, to pat and gently move a child, whether lying on the lap or the arm, whenever it appears to awake prema-

turely. The objections to the cradle made by some late writers, militate only against the abuse of it, from any violent rocking ; as though infants must necessarily be jumbled in a cradle like travellers in a mail-coach. For I cannot easily persuade myself, that we are in every thing become so much wiser than our fore-fathers ; with whom for some ages, and in distant countries, amongst rich and poor, the cradle has been judged to be a necessary part of the nursery furniture.

I shall only add on the article of sleep, what cannot be too often urged, that however wakeful a child may be in the night, it cannot receive a greater unkindness than from the exhibition of *Godfrey's* cordial, syrup of white poppies, or any other opiate ; and given as they usually are, to procure sleep ; not because it is necessary, or proper for the child, but because it is convenient to the nurse. It were, therefore, a good rule in the nursery, to forbid administering *any* kind of medicine without an express permission. And in regard to watchfulness, as was observed in another place, it is usually a mere symptom, and should be treated according to its cause ; but in a general way it may be said, that nothing can so safely and effectually contribute to procure natural rest as that exercise to be further considered under the next head,

MOTION and REST.

Exercise is of the greatest Importance, and should be begun with very early, and suited to the Age and Strength. Children should be put on their Feet with great Caution, and not be urged on till they be disposed to it of themselves; which they will not fail to do in good time. For want of Caution, however, they will often become crooked; and oftentimes before they go alone; especially the children of poor people.

IT is chiefly the former of these that will claim our attention, and it is, indeed, worthy of particular notice, as infants ought scarcely ever to be in a quiescent posture, except when asleep; and happy for them, that active principle with which nature hath endowed them, is so vigorous and overflowing, that they will hardly submit to it. Exercise, like air, is, indeed, of such universal importance, that children cannot possibly be truly healthy without it; care only should be taken that it be properly suited to their age.

The first kind of exercise, it has been said, consists in dandling, as it is called, patting the back after feeding, and gently raising the child up and down in the arms; taking care at first not to toss it very high, infants being very early susceptible of fear, and even capable of being thrown into fits by it. Another exercise adapted to this tender age, and of the utmost advantage, is rubbing them with the hand. This should be done *all over*, at least twice a day, when they are dressed and undressed, and especially, as noticed before, along the whole course of the back-bone; and ought to be continued for some time, being peculiarly agreeable to the child, as it constantly testifies by stretching out its little limbs, and pushing them

against the hand, with a smile expressive of the satisfaction it receives. Such gentle exercise may be partially repeated every time the child's clothes are changed, by rubbing the lower limbs, and every other part within reach. Likewise dashing the face with cold water, in the manner recommended for the rickets,* but more lightly, will produce the effects of exercise well adapted to this age.

When children are older, their exercise should be proportionally increased, and as has been observed, they ought never to be carried in a quiescent posture, but the arm that supports them should be continually in such motion as the nurse is able to continue. For children, it has been noticed, delight to be in constant motion; and this exuberant activity is given them for the wisest purposes, and ought by no means to be counteracted. And I notice the mode of carrying them, because I have seen children flung carelessly over the arm in such a manner, as neither affords them any exercise, nor allows them to give any motion to themselves; which lively children will always endeavour to do. And, indeed, the manner of carrying an infant, is of more importance than is generally imagined; for from it, the child will contract a habit, good or bad, that it will not readily give up, and may be as much disposed to become rickety by improper management in the arms, as if it were lying wet in the cradle; the ill effects of which have been pointed out already.

It may be a proper inquiry in this place, at what age children should be put on their feet; a point on which people have differed considerably; but I apprehend nothing more is required than to follow nature, whose progress

is always gradual, as our imitations of her should be, and we shall then seldom run very wide of her intentions. If we take notice of a healthy child, it has been said, we shall observe it to be always in motion, and as soon as it gets strength, it will be supporting itself by the help of its hands and feet, and be crawling about wherever it is permitted. From this exercise, it will soon acquire an increase, of strength; and whenever it is upheld by the arms, and disentangled from the weight of its clothes at the time of dressing and undressing, it will naturally walk up the waist of its mother or nurse;* and by its manner of moving its limbs, and its bearing more or less on the arms, will shew what advances it has made. Whenever it is strong enough, it will have attained sufficient knowledge to walk by itself, and will never attempt it till it is fully equal to the task. It will then be perfectly safe to permit it to follow its inclination, at least as far as the straightness of its limbs is concerned; and I think I may defy any one to produce a single instance of a child getting crooked legs, from being suffered to walk as soon as it has been disposed to make the attempt. But nowise ought nature to be forced; a maxim applicable to every

* I cannot help taking notice here of an imprudence on this occasion, which it is well if it have not been prejudicial oftener than has been suspected; I mean, that of suffering a child to crawl so high up the neck, as renders the mother, or nurse, incapable of raising the arms high enough to support it: for not only may a child be suffered to slip out of the hands, but the mother may be injured. I have felt much on this occasion, from seeing tender and delicate ladies with their arms on a stretch, suffering a heavy child, perhaps with its shoes on, to crawl over the breasts, distended with milk, and squeezing them so forcibly against the edge of the stays, that parents have sometimes cried out from the pain, and yet not been able, at the moment, to bring the infant down into the lap.—But the degree of evil attached to this, depends not a little on the fashion which the dress may assume at the time.

other occasion ; “ aware (as a writer before quoted, finely observes) that whatever forms may, by artifice, be intruded upon her, and she compelled to assume, to enlarge or contract her bias and inclinations, she can never be made, eventually, to deviate without manifest injury to herself, from the station and bounds unalterably impressed upon her by the unerring Power, which first created, and gave her Laws.”—But the mischief is, we lead on children prematurely to the trial, by back-strings, goe-carts, and other contrivances, calculated only to spare idle nursery-maids,* or what is really pitiable, to allow poor people time to attend to other concerns, who are obliged to work for their bread. But where this is not the case, such contrivances are unpardonable, and are the consequence of ignorance, or idleness, which are productive of great evils ; and then by way of excuse it is asked, at what age a child may be put on its feet ?—A question, I apprehend, that ought to be replied to only in the manner I have done†—Leave

* I cannot avoid once more risking giving offence, that I may do every thing in my power to induce parents to give the utmost attention in regard to exercise ; for the want of which I have, with much concern, beheld some children of people of large fortunes turn out as rickety as those of the labouring poor. In some instances, I have been so satisfied this has been owing merely to a want of exercise, that I have informed ladies, that from the appearance and manner of the nursery-maid, I was certain their children were not exercised sufficiently, and have pointed out the bad consequences that must ensue. And where the advice has not been taken, I have as constantly been consulted some months afterwards, about the cold-bath, for children of a year and half, or two years old, who have been able only to waddle across the room, with their knees knocking together, and reeling at every step, so as not to be trusted, for a moment alone.

† I have seen a child walking alone before it has been nine months old, and at ten months, carrying a heavy plaything in its hands ; whilst other children, rendered weak and rickety by mismanagement, have been un-

children to themselves, and they will afford a satisfactory answer in good time.

It is said, however, by a sensible writer, that children's legs do not become crooked by putting them too early on their feet, and he asks if any other animal has crooked legs, though they stand on them almost as soon as they are born. But this is running to the contrary extreme; the cases, I apprehend, being widely different; quadrupeds and fowls being designed by nature to be early on their legs; and it is necessary they should be so. They are accordingly calculated for it, their bones being strong from the birth, instead of little more than gristle, as is the case with the human species; and therefore no argument can be founded upon it without considerable latitude, and making such allowances for the different circumstances of children as have been pointed out. But if it be meant only to suffer children *to feel their way*, if I may so speak, for themselves, they will never deceive us; nor do I think their limbs ever become crooked, but by urging them to it by contrivances of our own; for which poverty is the only apology that can possibly be offered.

A NOTE of Dr. BUCHAN on the subject of giving exercise to children, which some people from their straitened circumstances, cannot spare time to afford them, charmed me exceedingly.—The good sense and philanthropy manifested in it, as well as a desire of extending its useful contents, will I hope be apology sufficient for transcribing it, especially as it is at present so apposite to my purpose. And though I cannot flatter myself that Government, however benevolently disposed, will, or perhaps can, at

ble to do half as much at two years of age.—I have even seen a child walking fairly alone, for a few steps, the day before it was eight months old.

this time, adopt such a plan, either from his recommendation or mine; it is nevertheless, in the power of people of large fortune, both in town and country, to give it very considerable effect, especially if the premium were made double for such children as should be produced in good health. The Doctor's words are,

“ If it were made the interest of the poor to keep their
“ children alive, we should lose very few of them. A
“ small premium given every year to each poor family,
“ for every child they have alive at the year's end, would
“ save more infants' lives than if the whole revenue of the
“ crown were expended on hospitals for that purpose.
“ This would make the poor esteem fertility a blessing,
“ whereas many of them think it the greatest curse that
“ can befall them;” and I may add, I have known them
express great thankfulness, when any of their children
have died.

COMPARATIVE FATALITY *amongst* INFANTS.

Calculation of Infants who perish from Neglect and Mismanagement, especially in all large Cities, or crowded, and manufacturing Towns. Cautions peculiarly necessary for Females; who are doubly injured by Neglect; in regard to themselves and their Offspring. A deficiency of Rest is also injurious.

THE advice contained in this chapter is further worthy of serious attention from late discoveries of a much greater fatality amongst the children of the poor of this metropolis than has ever been suspected.

To ascertain the fact, an enquiry has been for some time set on foot, at the *British Lying-in Hospital*. Inquiries

have likewise been making ever since in different ways ; and I have no reason to suspect that the statement made out from the report of the women offering themselves at the Hospital, is at all beyond the fatality in other poor families in *London*, but, indeed, rather under it, in regard to still poorer people.

The following is a brief statement of the investigation at the hospital, during the first year ;

Several women who had borne

| | | |
|----|-------------------------------|-----------|
| 3 | Children, had lost as many as | 2 |
| 4 | - - - - - | 3 |
| 5 | - - - - - | 4 |
| 6 | - - - - - | 5 |
| 7 | - - - - - | 6 |
| 8 | - - - - - | 7 |
| 9 | - - - - - | 8 |
| 10 | - - - - - | 9 |
| 11 | - - - - - | 8 and 10 |
| 12 | - - - - - | 10 and 11 |
| 14 | - - - - - | 11 |

and several of the mothers of different numbers had lost them all.

During another long period, only one woman, having borne as many as five children, had reared them all ; and one having had twelve, had *eight* living. But some having had four, had lost *three* ; and five, had lost *four* ; and six, *five* ; and seven, *six* ; and eight, *six* and *seven* ; and ten, *seven* and *nine* ; and women having borne eleven and twelve, had lost *eight*, *nine*, and *ten* ; and fourteen, *eight* ; with many who had borne four, five, and six, one twelve, and another twenty-one, had buried *them all*.—In addition to this, may be remarked, the sad and rickety state of many of the surviving children.

The above, indeed, contains the most formidable view of this matter, but the most favourable is, by no means, such as to counterbalance it; there being during a year and a half, no more than three women, I think, who having borne only three children; and one woman, (lately come from the country) having four children; who had lost none of them. Only one having had as many as six, had them all living; and another, who had preserved eight children out of ten. Amongst the surviving ones, however, it was frequently observed, was the last born; therefore, one less likely to be reared than an older child.

From these different degrees of fatality, further contrasted with the small number of deaths in the *hospital*, within *the month*,* we may suspect the different care and attention bestowed upon young children, as well as the want of certain accommodations; and may fairly argue on their effects, there being no such fatality found amongst the opulent. A singular corroboration of this remark, I had an opportunity of observing only a few days ago; where a lady who had borne fifteen children, and no more, had them all sitting around her table at dinner; and in two other families, there were twenty-one at table.

It would be unpardonable not to add a few words in this place with a peculiar reference to *females*; upon whom beside every infirmity common to the other sex, is imposed the painful task of child-bearing. It is the benefit of the lower class of people, indeed, that I have here principally in view; though the caution is not utterly unnecessary elsewhere.—The many distressing, and sometimes fatal labours I have been witness to, have led me to regard with a kind of horror a rickety, distorted female infant; whose parents or nurse's neglect, or ignorance, is heaping

* See the *Introduction* to this volume.

up for it additional sufferings and dangers, to those which are great enough under every advantage that art, and good health can contribute.

From the age of two years therefore, or rather earlier, this care is especially called for, and beside every caution already pointed out, lays a strict prohibition on girls being suffered to sit, for hours together, on a low seat; whereby that assemblage of bones, called the basin, is pressed between the lower extremities and the trunk, and is made to grow out of its natural form. The consequences of this change of figure, if it be any-wise considerable, cannot fail to be productive of increased pain and dangers in child-birth, frequently equally fatal both to the parent and her offspring.

I am aware, that many poor people are not in circumstances to give their children all the exercise they require: they may, however, suffer them to afford as much as possible to themselves, by allowing them to crawl about on the floor, near an open window or door, instead of compelling them to lie on their back, or to sit upright, pinned in a chair; the ill-consequences of which are so exceedingly evident.

It is hoped, no apology may be thought necessary for these obvious remarks, since no pains should be thought too great if they may prevent the evils here pointed out, nor can too much be said to inculcate good nursing, (and especially exercise) which is alone adequate thereto.*

* A proper attention to this, and many of the preceding articles has been conceived to be of so much importance, that the benevolent Governors of the *British Lying-in Hospital*, some years ago gave orders, that suitable Directions on these heads should be drawn up, and given to every mother, on her leaving that Charity.

A VERY few words may suffice on the head of REST, the irregularities therein being far less numerous and important than in the former. In a general way, it will be sufficient to notice them in regard to the improper inducement of young children to continue in action after they feel themselves wearied, and in keeping them out of bed beyond a proper hour. Children in health never wish to sit still when they do not actually feel it to be necessary, much less to go to bed over early. But it is to be remembered, that young people require more sleep, and to be longer in a recumbent posture than adults; for though they usually rise very early, they get to rest more than proportionally soon, being disposed to fall asleep almost the moment they are still; and this is natural to them, and is a demonstration of the advantage of exercise.

On some slight NATURAL DEFORMITIES.

Brief observations on many natural Deformities, occasioned, or increased by various bad HABITS; and such Corrections and Remedies pointed out in a way of Amusement, or otherwise, and suitably adapted, as may be very easily complied with, agreeably to the Age and Strength, and various other Circumstances; and will in the several Instances fully recompence the Parent's preserving Pains and Attention, in the Health and Strength of their Children. The Manner in which Exercise operates in forming and maintaining Health and Vigour.

PROLIX as these articles may already have appeared, it may, nevertheless, add a completeness acceptable to many readers, to comprehend under them other particulars, of no small importance, that relate equally to both.

These will respect the different *Modes* of Motion and Rest, in order to point out several improprieties that have a natural tendency to induce, or increase various corresponding deformities.

Such will relate to the manner of children's *standing*, *walking*, *sitting*, and *lying* ; and will particularly respect the position of the head and feet, and the form of the back, shoulders, and hips. It may not therefore be improper in this place, nor it is hoped, be thought going out of the true line of my profession to advert a little on each of these. Indeed, to propose regulations of any kind merely with a view to a graceful manner of standing or walking, would be highly incompatible with the intention of the work ; but since this part of it, more particularly, falls under the direct province of parents, they may not be displeased that it should aim at general usefulness, by calling their attention to certain particulars, which for want of correction whilst children are under their own eye, may, as they grow up, become real evils. For it is very certain, that from an improper manner of resting upon any of the extremities, whether in sitting or otherwise, different parts may take an ill form ; and what is worse than an awkward appearance, (to which parents are apt to confine their attention) children often grow up weak ; whereby the poor become unfit for those labours and exercises for which they are designed, and the necessities of their situation frequently demand.

And I here beg leave to remark to people of rank, that the very means frequently made use of to prevent some of these deformities, may on the contrary, occasion them. Such are the use of steel-collars, various sorts of stiff stays, and other tight bandages. For I am confident, nor am I singular in the opinion, that when recourse is had to these

things, before any parts have taken a wrong turn, they are very likely to occasion it. Not that such contrivances are afterwards improper ; for when the bones have, by any means, been thrown out of their natural direction, Art can frequently rectify it, and point out where to apply, or to take off pressure ; and has been fully considered under the head of *Diseases*. But before this, and while the bones are soft and growing, compression, however properly applied, is an effect oftentimes ill-directed, owing to the continual and irregular action of children, especially when they feel any parts unpleasantly confined. I may take this occasion also of submitting a caution in regard to the stocks for the feet of children, and the frame for pressing in their knees, which when made use of to an excess, may become highly injurious.

I COME now to the circumstances immediately hinted at, and first those which regard the head or neck.

Many infants come into the world either with the neck drawn a little to one side ; or an awkward turn of the head appears to take place afterwards. In the latter instance, it may be the effect of habit, and amongst other causes may be owing to children being placed in the cradle, or carried improperly, so that the light, and other objects that forcibly attract their notice, are too frequently on the same side. The remedy in either case, as far as it may become such, is obvious, and has been hinted in the chapter on squinting ;* every thing should be so contrived as may tend to draw the head to the other side, and especially such things as may have a sudden and forcible operation on the muscles, by producing strong voluntary motions. It may not, perhaps, occur to every one, how much may be effected by such means : several striking

instances of it, however, have been met with ;* and we daily observe similar effects of a certain position in flowers and shrubs, which without any help from the hand, turn about, obedient to the air and sun operating upon their internal structure. For the like reason, as well as to avoid increasing the disposition to growing out, that there may be in any part of the ribs or back bone, children of a delicate make should not sit always on the same side of the fire, or window, which might incline them to bend too much to one side ; nor should they stand in a very erect posture for a very long time, but be suffered to sit oftentimes between whiles, in a chair that has a back to it, against which they may carefully recline themselves.

THE next observations respect the back and shoulders—Some young children, naturally well-formed, acquire after a while what is termed round shoulders ; the back-bone projecting too much behind, and forming an unsightly curve.

The *morbid* affection of this part has been mentioned already ;† I have only to notice here a change arising merely from some bad habit or custom, through an improper manner of *sitting* or *standing*. In regard to the

* An Ambassador from *Morocco* being at *Paris* went to see the *Charity-Hospital*, where passing the ward for the wounded, six of them who had not stirred for several months before, rose up and came to the Ambassador, to the great surprise of the whole hospital;‡ curiosity or surprise effecting that, which the most powerful medicines could not, in so short a time.—The like circumstance is reported to have taken place very lately, from a fire happening in the house where an elderly lady had long lain bed-ridden, who preceiving the fire, suddenly rose from her bed, without any assistance, and ran into the street !

† Histoire de l' Ambassadeur de *Maroc*, Envoye au Roi de *France*, en 1682.

‡ Vol. II. pages 258, and 264.

former, it may be observed, that the soft concave-bottomed chairs, in which young children usually sit, are on many accounts improper for their years, who should always make use of a flat and hard seat, and generally without arms, as directed for the falling down of the gut ;* which complaint it would have a tendency to prevent. But in the hollow-bottomed chairs children find themselves obliged to recline on one side or other, or to be making certain exertions for keeping themselves upright, and preserving a proper balance of the body ; and it is obvious, that either a bending posture, or the efforts necessary to avoid it, if often repeated, may become hurtful to weakly children.

AN improper manner of *standing*, though less frequently a source of this kind of mischief, on account of the position being more frequently varied than in sitting, is, nevertheless, capable of giving an awkward turn to the back and shoulders as well as to the feet. We are creatures of habit, both in respect to our bodies and minds, so that to whatever we may have for a little while accustomed ourselves, we have an increasing propensity ; and when the habit is once formed it is very difficultly broken. Children should therefore be early accustomed to stand very upright, instead of being suffered to lean upon whatever may happen to be near them, as they are frequently disposed to do.

Should one of the shoulder-blades project more than the other, the child should lie as much as may be on the contrary side ; as the shoulder upon which one lies, always projects beyond the plane of the back. When the shoulders themselves happen to be too high, a child so disposed should never be suffered to sit in an elbow-chair ;

* Vol. II. page 291.

nor should any child sit before a table, that is either much too high or too low for the seat in which he may be placed, especially if it be for the purpose of reading, writing, or any other employment that may engage him for any length of time. But if one of the shoulders is higher than the other, the child should frequently be directed to stand only upon the foot of that side, at least to bear his weight chiefly upon it ; by which means, the shoulder that is too high must necessarily fall lower, and the other be raised : or a small weight may be put upon the shoulder that is too low, which will incline the child to raise it up. Or he may be caused frequently to carry a light chair, or such like, as a play-thing, in the hand of that side, which will have the same effect. The like means should be used when one hip is higher than the other, which is both a very common and peculiarly unfortunate complaint ; especially to females.

Another easy and efficacious mean of rectifying the shoulders, is to make the child support himself with a very short cane on the side where the shoulder is too high, which will oblige him to lower it ; and at other times, to put one that is too long for him into the other hand, which will raise the shoulder on that side. He may likewise often sit in a chair with two arms, one of them being made a little higher than the other.

These and other similar means may be very easily complied with, and several of them so managed as to be made a sort of play or amusement to the child ; and if properly persevered in, will correct many deformities that have originated merely from bad habits, as well as conspire with other contrivances to remedy such as may depend upon a slight mal-formation.

The *feet* of children, it has been said, are likewise liable

to receive an improper turn ; and this may arise from habit, as well as from original mal-formation, which has already been noticed.* Children when conversing with those with whom they are familiar, seldom stand firmly on their feet, but are apt to lean upon one side of them, so as to bear almost upon the ankle, instead of the soles of the feet. By degrees, this habit is not only increased, but the tendons themselves are disposed to contract, or those on the opposite side become weakened. In the like manner, by standing upon the toes, the tendon of the heel, in time, becomes shorter, as is manifest in every woman who wears very high-healed shoes. To obviate the former, little more is required, than to correct the child's manner of standing, by teaching him to bear firmly on the bottom of his feet : or if a foot be turned very much to either side, the sole of the shoe may be thickened upon the side on which the child bears. If by treading on the toes, the heel is become contracted, the heel-piece should be taken off from that shoe, instead of its being raised, as hath sometimes been very improperly done. Beside this, such children should be frequently caused to walk up steep ascents, by which they will be obliged to bear up the forepart of the foot, whereby the tendon of the leg will be stretched, and the heel must fall lower.

Most of the remedies proposed for these little disorders, will have another advantage, as they necessarily inculcate exercise ; in favour of which, so much has been said : the great neglect of it, especially among the younger children of the poor, is daily lamented by every man of observation and feeling, and the more so, as it is a Good they cannot always command.

If I had not already far exceeded the bounds I had in-

* Vol. II. pages 336, 337.

tended, I might be induced to say something on the Manner in which Exercise becomes so beneficial to children—I shall, however, just state to the attentive reader, that it tends to push forward the blood through the small vessels, and to unfold them in the manner nature has designed them to be extended, in order to promote the growth of the infant, whilst it preserves the blood in a proper state of fluidity, and promotes both the Secretions and Excretions;* which are the next things it was proposed to consider.

* These particulars are well expressed by *Monsr. DES-ESSARTZ*; from whose fuller account, let the following suffice by way of illustration to intelligent parents:

“ La liaison et la dépendance que l’auteur suprême de la nature a établies entre toutes les parties de ce composé merveilleux, sont si intimes que le Prince de la Médecine nous a représenté le corps animé, et jouissant de ses fonctions, comme un cercle dans lequel on ne peut reconnoître ni commencement, ni fin.—En effet, les instrumens destinés à la chylickation tirent toute leur force des organes de la sanguification, ceux-ci des nerfs et du fluide qui’ls contiennent: et ce fluide (si nous en croyons le système le plus universellement adopté, et auquel il manque peu de chose pour être démontré; ce fluide) tire son origine du sang, et le sang des alimens que nous prenons tous les jours.—De la constance et de la régularité de fonctions aussi différentes et aussi multipliées dépendent notre santé et notre vie. Il ne suffit pas de prendre des nourritures, il faut qu’elles soient bien digérées, changées en sang, et ce sang doit être assez travaillé pour fournir non seulement la lymphe nourricière de tout le corps, mais encore un fluide très-subtil qu’on appelle fluide animal. Chaque liqueur doit être séparée dans ses glandes, et celles que la nature rejette comme inutiles et dangereuses, doivent être poussées au dehors.

Or, rien n’est plus propre à faciliter et à perfectionner toutes ces opérations, que l’Exercise. Si nous jettons les yeux sur notre corps, nous y apercevrons une multitude de vaisseaux qui sont entrelassés les uns dans les autres, serpentans entre les fibres musculaires à la pression successive desquelles ils doivent une grande partie de leur mouvement et de leur action sur les fluides. A mesure que les muscles entrent en jeu, ils produisent des secousses reiterées sur les vaisseaux sanguins, qui se communiquent dans tout le système artériel et veineux. Ces secousses non seulement procu-

RETENTION *and* EXCRETION.

THE reader is here to be apprized, how greatly health depends upon a due proportion between the daily supplies, and the various discharges of the body ; the latter will vary according to the diet, age, and particular mode of each individual. The excretions of infants, however, insensible perspiration excepted, are chiefly from the bowels and bladder ; but the latter is not very liable to disorders : as it sometimes takes place, however, it ought not to be entirely passed over.

RETENTION of URINE *in* NEW-BORN INFANTS.

Retention of Urine, not common, and usually very easily removed. Incontinence of Urine less common.

AFTER what has been already advanced under the head of *Diseases*, it will be sufficient to say, that the retention of urine during early infancy is chiefly from the birth, and is usually removed by applying a bladder of hot water to the belly, and gently rubbing with a little warm brandy, with oil of juniper and oil of almonds, or an onion ; and throwing up a clyster : or should these fail, the infant may be put up to the breast in a pan of warm water, and take a large spoonful of marsh-mallow, parsley, or wild-carrot-tea, sweetened with honey, with the addition of two

rent aux fibres la force, et la souplesse, qui caractérisent leur bonne constitution, mais elles broient, atténuent et subtilisent les liquides contenus dans les vaisseaux, achevent la transmutation du chyle en sang, en lymphe, et en fluide animal ; la circulation est plus libre, les sécrétions se font mieux, et plus uniformément, et la digestion en devient plus parfaite.—*Traité de l'éducation corporelle des Enfants en bas Age.*

or three drops of the spirit of nitrous ether. This, if there be no mal-formation of parts, will generally produce the desired effect in the course of a few hours; though cases have occurred in which infants have voided no urine for the space of four days, and have suffered very little inconvenience: I have even known one instance of a suppression for five days; and it is remarkable, that two former infants in this family voided no urine for three. Should the suppression, however, continue during two complete days, the following cataplasm may be applied warm, close above the share-bone.

TAKE of parsley and mallow-roots, leaves of cresses, and juniper-berries, of each a handful, and of the roots of garlic one ounce; boil them slowly in water, or in wine, to the proper consistence for a poultice. On the other hand, the sudden application of cold to the lower part of the belly has sometimes produced an immediate good effect. Where all these means have failed, and the infant been in much pain, I have directed a very small clyster with four or five drops of laudanum, which has presently removed both the pain and suppression.

INCONTINENCE of URINE.

Costiveness and Purging more hurtful; and demand a scrupulous Attention.

SOME of the old writers have spoken of a complaint which is the reverse of this, being an *incontinence* of urine, and is supposed to arise from weakness of the *sphincter* (or contracting muscle) of the bladder. In older children the complaint is pretty common, and has been largely considered;* but I have never met with it in early in-

* See Vol. I. page 203.

fancy. They prescribe agrimony and myrrh, and direct astringent fomentations of red wine to the belly, the seat, and the loins.

THE present observations are therefore chiefly confined to the Bowels, which would call for a scrupulous attention in this place, if so many particulars relative to them had not been discussed in a former part of this work. It were needless, therefore, to say more, than to remind the reader, that (as far as general rules may go) infants are rarely healthy long together, who have not two or three stools every day; or should they be more, for the first three months, if the child be brought up at the breast, and the nurse have a sufficiency of milk, it will generally thrive the better. The stools likewise ought to be loose, of a yellow colour, free from lumps, or curdy matter, neither of an acid nor fetid smell; and should come away without griping. When children are about a year old, or perhaps earlier, pains should be taken to procure one stool at least every day, as well periodically, as constantly; and for this, the morning is most adapted, and after their breakfast, by which the stomach and bowels will be stimulated. To this end they should be set on the chair, and not suffered to play until they have had an opening, for which they should strain, till at length it becomes customary, as may be easily effected; and by which we shall gain a point, with respect to the health of children. On the other hand, if an infant is brought up by hand, the danger generally lies in the other extreme, such children being disposed to be purged, and to have griping and sour stools, from the acescent, and often indigestible nature of their food, especially if fed by the spoon; and therefore require an early attention when their bowels are disposed to be open, or on the other hand, the motions are too stiff and clayey;

and their food be changed, in the manner directed under the article of purging.*

The PASSIONS of the MIND

Relate but little to INFANTS, but particularly to WET-NURSES; whose Temper is variously important to the present, if not the future Comfort of Children.

THIS is the last Article mentioned as included in the *Non-naturals*, and on which I shall be very brief, it being the happiness of infants to be very little affected by them. This article, therefore, can relate to them merely in regard to their mode of expressing such passions, and principally respects *Laughter* and *Crying*. The former, if long kept up, or very violent, may not only induce the hic-cough, but it is said may even throw an infant into fits; though I have never known it to have such consequences. The latter is, indeed, much oftener suspected of being mischievous, and chiefly by occasioning fits, or a rupture: the excess of both these affections should, therefore, be guarded against. Moderate, and not too frequent Crying, however, ought not to be alarming; and, indeed, a variety of considerations induce me to believe, that this expression of the passions in infants is not only much more harmless in itself than is generally imagined, but is also, in some respects salutary. The first Cries it makes we know to be so, and that children recover from the paroxysms of some complaints (as was mentioned in regard to the Croup) by an effort of this kind. It is evident likewise, how very much health depends on a free circulation of the blood through the lungs, and on their free expansion from the

* See Vol. I. page 65.

dilatation of the air-vessels, that run through them.* But as new-born infants are incapable of giving themselves any exercise, and indeed of receiving that kind which tends to promote such an effect, I have conceived Crying to be an effort which nature may have wisely substituted in its stead. Whatever is truly natural I always conceive to be right; though every thing, is capable of being abused, and the most beneficial dictates of nature may be exceeded. I am satisfied, however, that the pacifying of children by improper means, and especially cramming them with food when they are not hungry, (against which so much has been said) occasions far greater evils in thousands of instances, than ever were induced by the irritation from Crying.

The cries of infants, however, it must be confessed, are very commonly, plaintive; and as they seem to argue distress, cannot but create it in every person of sensibility around them, and merits a strict enquiry into the particular occasion of them. The Nurse, therefore, who can with calmness, hear an Infant cry, without attempting to pacify it, by every proper mean, is a Monster in human shape, unfit to be trusted with the care of rational beings, much less with a tender, helpless creature, whose only language, by which it can express its wants or its sufferings, is its TEARS.

I cannot take my leave of the reader without offering one apology more for having dwelt so long on this, and some other heads less important than the rest; my motive has been the desire of instructing, though in some instances at the risk of tiring, or otherwise displeasing; and for the sake of my fair readers, for whose use this edition is

* "Moderate crying is not hurtful to children," (says *Primrose*); "it dilates and warms the chest."

wholly calculated, I have endeavoured to lessen their Fears, as far as those have appeared to be needless, wherever no other Remedy could be offered.

I shall conclude by observing, that though the Passions of the Mind refer so little to Infants, they relate very materially to the Wet-nurse; who besides endeavouring to keep her spirits as calm as possible, ought to be exceedingly careful not to put a child to her breast, when under the influence of undue passion, of whatever kind it may be; the bad effects of which have already been instanced under the head of Diseases.* And I shall think myself well recompensed for the trouble I have had, if the counsel and advice I have offered, may prove the means of lessening the dangers of the infant-state, and the consequent sad fatality that attends it; as well as of abating the anxiety of the fond Mother, who after having brought her tender Charge into the world with Sorrow, is pierced with double Pangs at its leaving it—An event which, as Experience warrants me to say, may by Art and good Management, be often prevented, the author ardently hopes the fond Parent may have fewer occasions to lament, and her rising Sons be athletic.

* See Vol. I. page 87.

AN ALPHABETICAL CATALOGUE

OF

*Medicines and external Applications recommended
in this Work,*

TO WHICH

The COLLEGE of PHYSICIANS have given *New*
Names.

NEW NAMES.

Names formerly in Use.

A.

AROMATIC Confection. Cordial Confection.

C.

| | |
|---|--|
| Calx of Antimony. | Calcined Antimony. |
| Catechu. | Japan Earth. |
| Camphorated Spirit. | Camphorated Spirit of wine. |
| Compound Spirit of Am- monia. | Aromatic volatile Spirit or Sal-volatile drops. |
| Compound Spirit of vitriol- ic Ether. | Hoffman's anodyne Liquor. |
| Compound Tincture of Aloes. | Elixir of Aloes. |
| Compound Tincture of Gen- tian. | Bitter Tincture. |
| Compound water of aceta- ted Litharge. | Vegeto-mineral water. |

D.

| | |
|-------------------------|-------------------------|
| Diluted Vitriolic Acid. | Acid Elixir of Vitriol. |
|-------------------------|-------------------------|

L.

| | |
|-------------------|---|
| Labdanum-plaster. | Stomach-plaster. |
| Litharge-plaster. | The Common-plaster, or Simple Diachylon. |

NEW NAMES.

Names formerly in Use.

M.

| | |
|-----------------------|----------------------------|
| Muriatic Acid. | Spirit of Sea-salt. |
| Muriated Quicksilver. | White corrosive sublimate. |

N.

| | |
|------------------|----------------|
| Nitrated Silver. | Lunar Caustic. |
|------------------|----------------|

O.

| | |
|--|--------------------------------|
| Ointment of acetated Ceruse. | Ointment of Lead. |
| Ointment of Nitrated Quicksilver. | Citrine Ointment. |
| Ointment of the white Calx of Quicksilver. | Ointment of white Precipitate. |

P.

| | |
|----------------------------------|-----------------|
| Powder of Scammony with Calomel. | Basilic Powder. |
| Prepared Natron. | Salt of Soda. |

S.

| | |
|----------------------------|--------------------------|
| Spirit of nitrous Ether. | Sweet Spirit of Nitre. |
| Spirit of vitriolic Ether. | Sweet Spirit of Vitriol. |

T.

| | |
|----------------------|--------------------------|
| Tartarised Antimony. | Emetic Tartar. |
| Tartarised Natron. | Rochelle Salts. |
| Tincture of Catechu. | Tincture of Japan-earth. |
| Tincture of Opium. | Laudanum. |

V.

| | |
|--------------------------------|--|
| Volatile Liquor of Harts-horn. | Spirit of Harts-horn, or Harts-horn drops. |
|--------------------------------|--|

W.

| | |
|-----------------------------|-----------------------------------|
| Water of Ammonia. | Volatile spirit of Salt Ammoniac. |
| Water of acetated Ammonia. | Mindererus's Spirit. |
| Water of acetated Litharge. | Extract of Lead. |
| Water of ammoniated Copper. | Sapphire water. |
| Water of Kali. | Ley of Tartar. |
| Water of pure Kali. | Soap Ley. |

AN
ALPHABETICAL INDEX
TO
THE DISEASES, &c.

A.

| | PAGE. |
|-------------------------------------|-----------------|
| A BSCESS in the Ear - - - | vol. 2. 245-246 |
| _____ in the Lower-belly - | 251-253 |
| _____ Lumbar, or Psoas - | 253-255 |
| _____ of the Hip-joint - | 255-256 |
| _____ under the Fascia of the Thigh | 256-257 |
| Ague - - - | v. 1. 169-173 |
| Albino, account of - . | v. 2. 339-340 |
| Anus imperforate - - | 332-333 |

B.

| | |
|------------------------------------|---------------|
| Bleeding from the Sublingual Veins | v. 2. 277-278 |
| _____ the Nose - - | 278-279 |
| _____ the Navel - | 279-280 |
| Boils - - - | 266-267 |
| Breasts, Induration of - - | 250-251 |
| _____ in Infants - | v. 3. 402-403 |
| Burns and Scalds - - | v. 2. 271-273 |
| Belly, Rupture of - - | 284-287 |

C.

| | |
|---|---------------|
| Canker of the Mouth - | v. 2. 247-249 |
| Cataract, and Gutta Serena - | 239-242 |
| Chafings or Excoriations - | v. 3. 399-401 |
| Cheeks, gangrenous Erosion of - | v. 2. 249-250 |
| Chicken-pox - - | v. 1. 168-169 |
| Chilblains - - | v. 2. 267-273 |
| Cold Bath (<i>Note</i>) - - | v. 3. 396-398 |
| Complaints mentioned by Ancient writers | v. 2. 298-303 |
| Common inflamed Eye - - | 232 |

| | PAGE. |
|---|---------|
| Congenite Disorders, or such as appear at the Birth v. 2. | 303 |
| Convulsions - - - v. 1. | 85- 95 |
| Coughs, General Observations on - | 174-175 |
| —— Hooping - - - | 175-184 |
| —— Spasmodic - - - | 184-185 |
| Costiveness and Wind - - - | 29- 33 |
| Croup - - - - - | 185-190 |
| Curvature of the Bones from Weakness v. 2. | 264-265 |
| Cutting of the Tongue - - - | 276-277 |

D.

| | |
|---|---------|
| Dance, St. Vitus's - - - v. 1. | 104-105 |
| Deafness - - - v. 2. | 243-245 |
| Debility of the Lower Extremities - | 261-262 |
| Decay, and Hectic Fever - v. 1. | 138-141 |
| Discharges from the Vagina - v. 2. | 292-293 |
| Discolouration, accompanied with a Debility of the Limbs - - - | 262-264 |
| —— of New-born Infants - v. 1. | 10- 12 |

E.

| | |
|-------------------------------------|---------|
| Ear-Ach - - - v. 2. | 246 |
| Ears Imperforate - - - | 334-336 |
| —— Sore - - - v. 1. | 57- 59 |
| —— Abscess in - - - v. 2. | 245-246 |
| Epileptic-fits - - - v. 1. | 102-104 |
| Eruptions on the Skin - - - | 43- 57 |
| Erysipelas Infantile - - - | 18- 20 |
| Excessive Thirst, or Polydipsia - | 205-206 |
| Excoriation and Galling - - - v. 3. | 399-401 |
| Eye, Disorders of - - - v. 2. | 231-234 |
| —— Cataract, and Gutta Serena - - - | 239-242 |
| —— Inflammation, common - v. 2. | 232 |
| —— Purulent - - - | 234-237 |
| —— Watery - - - | 233 |
| —— Speck on - - - | 239 |
| Eye-lids, soreness of - - - | 237 |
| Eyes, Peculiarities of - - - | 338 |

F.

| | | | |
|---------------------------------------|-------|-------|---------|
| Fainting | - - - | v. 1. | 9- 10 |
| Falling down of the Gut | - | v. 2. | 291-292 |
| Fever | - - - | v. 1. | 122-147 |
| —— Hectic and Decay | - - | | 138-141 |
| —— Miliary | - - - | | 145-147 |
| —— Mesenteric | - - - | | 132-138 |
| —— Remittent | - - - | | 131-132 |
| —— Scarlet, and ulcerated Sore-Throat | | | 142-145 |
| —— Slow, with Appearance of Boils | - | | 129-131 |
| Fits, Inward | - - - | | 25- 29 |
| —— Epileptic | - - - | | 102-104 |
| Fractures and Luxations | - | v. 2. | 273-276 |

G.

| | | | |
|----------------------------------|-------|-------|---------|
| Gangrenous Erosion of the Cheeks | - | | 249-250 |
| Gangrenous, or Putrid Thrush | - | v. 1. | 42- 43 |
| General Observations on Coughs | - | | 174-175 |
| —— on the Small-pox and Measles | | | 156-160 |
| Gripes | - - - | | 64- 65 |
| —— Watery | - - - | | 73- 74 |
| Grocer's Itch | - - - | | 54- 57 |
| Groin, Rupture in | - - - | v. 2. | 285 |
| Gravel | - - - | v. 1. | 202-203 |
| Grubs | - - - | v. 2. | 300-301 |
| Gutta Serena, and Cataract | - - | | 239-242 |
| Gut, falling down of | - - | | 291-292 |

H.

| | | | |
|--|-------|-------|---------|
| Hare-lip | - - - | | 325 |
| Head, Watery | - - - | v. 1. | 149-156 |
| —— Scurfyness of | - - - | v. 2. | 225 |
| Hectic Fever and Decay | - - - | v. 1. | 138-141 |
| Hepartomphalos, and Ventral, or Belly-Hernia | - - | v. 2. | 318-319 |
| Hernia, or Rupture of the Brain | - - | | 303-305 |
| Herpes, or Ring-worm | - - - | | 226-227 |
| —— the ulcerating | - - - | | 227-228 |

| | PAGE. |
|---------------------------|---------------|
| Hiccough - - - | v. 1. 107-108 |
| Hip-joint, Abscess of - - | v. 2. 255-256 |
| Hooping-Cough - - | v. 1. 175-184 |
| Hair—Peculiarities of - - | v. 2. 338-340 |

I.

| | |
|--|---------------|
| Imperfect Closure of the Foramen Ovale, and | |
| Canalis Arteriosus of the Heart | v. 2. 308-309 |
| Imperforate Vagina - - - | 331-332 |
| Anus - - - | 332-333 |
| Penis - - - | 333-334 |
| Ears - - - | 334 |
| Induration of the Breasts - - | 250-251 |
| in Infants - - | v. 3. 404 |
| Infants, apparently Still-born (Introductory | |
| Preface) - - - | v. 2. 213-220 |
| Infantile Jaundice - - - | v. 1. 16- 18 |
| Erysipelas - - - | 18- 20 |
| Incontinence of Stools - - - | 77- 78 |
| of Urine - - - | 203-204 |
| Inflammation of the Eyes - - | v. 2. 231-237 |
| of the Stomach - - | v. 1. 63- 64 |
| Inward-fits - - - | 25- 29 |
| Joints, White-swelling of - - | v. 2. 257-258 |
| Itch - - - | 225-226 |
| Grocer's - - - | v. 1. 54- 57 |

K.

| | |
|------------------------------|---------|
| King's-Evil, or Scrofula - - | 193-197 |
|------------------------------|---------|

L.

| | |
|---|---------------|
| Lancing the Teeth - - - | 118 |
| Locked-Jaw or Tetanus - - - | 101-102 |
| Lower-belly, Abscess in the - - | v. 2. 251-253 |
| Lower Extremities, Palsy of, with Curvature | |
| of the Spine - - - | 258-261 |
| Extremities, Debility of - - | 261-262 |
| Luxations and Fractures - - | 273-276 |

| | PAGE |
|--|------|
| Luxations of the Lower Jaw - v. 2. | 273 |
| Lymphatic Tumours of the Head and Back | 307 |

M.

| | |
|---|---------|
| Macies - - - - - | 302-303 |
| Marks that may be remedied - | 328-330 |
| Measles and Small-pox, General Observations on v.1. | 156-160 |
| Meconium - - - - - | 12- 16 |
| Medicines, Regulations of Doses (<i>Note</i>) - | 14- 15 |
| Mesenteric-Fever - - - - - | 132-138 |
| Miliary-Fever - - - - - | 145-147 |
| Milk-Blotches, or Crusta-lactea - | 45- 47 |
| Morbid-Snuffles - - - - - | 20- 24 |
| Morbum Pilare - - - - - v. 2. | 301 |
| Mouth, Canker of - - - - - | 247-249 |
| Mucous Urine - - - - - v. 1. | 198-200 |
| Mumps - - - - - | 147-149 |

N.

| | |
|--|---------|
| Navel, Bleeding from - - - - - v. 2. | 279-280 |
| Navel-String, unkindly Separation of - | 283-284 |
| Navel-Rupture - - - - - | 284 |
| Nettle Rash - - - - - v. 1. | 51- 52 |
| New-born Infants, Discolouration of - | 10- 12 |
| ----- apparently Still-born(Intro.Pref.)v.2. | 213-220 |
| Night-Mare - - - - - v. 1. | 106-107 |
| Nose, Bleeding from - - - - - v. 2. | 278-279 |

P.

| | |
|--|---------|
| Palsy - - - - - v. 1. | 96- 98 |
| — of the Lower Extremities, with Curvature | |
| of the Spine - - - - - v. 2. | 258-261 |
| Parenchymatous (or soft spongy) Tumours | 317-318 |
| Pecheguera of South America, or the Seven- | |
| Days-Disease - - - - - v. 1. | 206-208 |
| Penis, imperforate - - - - - v. 2. | 333-334 |
| Phlyctenæ, or Watery-Eruption - - - v. 1. | 53- 54 |
| Phthiriasis - - - - - v. 2. | 302 |

| | | PAGE |
|---------------------------------|-------------|---------|
| Polydipsia, or Excessive Thirst | - v. 1. | 205-206 |
| Prepuce, Tumefaction of | - - v. 2. | 290 |
| Psoas, or Lumbar-Abscess | - - | 253-255 |
| Purging | - - - v. 1. | 65- 77 |
| Purulent Sore-Eye | - - v. 2. | 234-237 |

R.

| | | |
|--|-----------|---------|
| Ranula | - - - | 299 |
| Red-Gum | - - v. 1. | 43- 45 |
| Regulation of the Doses of Medicines (<i>Note</i>) | | 14- 15 |
| Remittent-Fever | - - | 131-132 |
| Retention of the Testicles | - - v. 2. | 289-290 |
| Rectum opening into the Vagina | - | 332 |
| Rickets | - - v. 1. | 190-193 |
| Ringworm, or Herpes | - - v. 2. | 226-227 |
| ——— the ulcerating | - - | 227-228 |
| Ruptures | - - - | 284-287 |
| ——— at the Navel | - - | 284 |
| ——— of the Belly | - - | 285 |
| ——— in the Groin | - - | 285 |
| ——— Strangulated | - - - | 286 |
| ——— Watery | - - - | 287-288 |
| ——— Windy | - - - | 288-289 |
| ——— of the Brain | - - - | 303-355 |

S.

| | | |
|--|-----------|---------|
| Scarlet-Fever, and ulcerated Sore-Throat | v. 1. | 142-145 |
| Scall'd-head | - - v. 2. | 221-225 |
| Scalds and Burns | - - - | 271-273 |
| Scrofula or King's-Evil | - - v. 1. | 193-197 |
| Scurfyness of the Head | - - v. 2. | 225 |
| Shingles | - - - | 228 |
| Skin, Eruptions on | - - v. 1. | 43- 57 |
| Skin-bound | - - - | 98-101 |
| Sleep, Want of, or Watching | - - | 33- 35 |
| Slow-Fever, with Appearance of Boils | - | 129-131 |
| Small-pox and Measles, General Observations on | | 156-160 |
| Sneezing | - - - | 108 |

| | | | PAGE |
|--|---|-------|---------|
| Snuffles, common | - | v. 3. | 410-411 |
| —— morbid | - | v. 1. | 20- 24 |
| Sore Ears | - | - | 57- 59 |
| Sore-Eye, the Purulent | - | v. 2. | 234-237 |
| —— after Small-pox and Measles (<i>Note</i>) | - | - | 236 |
| —— Venereal | - | - | 238-239 |
| Soreness of the Eye-lids | - | - | 237 |
| Spasmodic Cough | - | v. 1. | 184-185 |
| Speck on the Eye | - | v. 2. | 239 |
| Speech, temporary Loss of | - | v. 1. | 105 |
| Spina-Byfida, or Forked-Spine | - | v. 2. | 309-317 |
| Squinting | - | - | 335-336 |
| Stithe, or Styte | - | - | 242-243 |
| Stomach, Inflammation of | - | v. 1. | 63- 64 |
| Stools, Incontinence of | - | - | 77- 78 |
| —— of a black colour, arising from sore-nipples (<i>Note</i>) | - | v. 3. | 414 |
| St. Vitus's Dance | - | v. 1. | 104-105 |
| Suffocation from swallowing the Point of the Tongue, and Bleeding | - | v. 2. | 277-278 |
| Superfluous Parts | - | - | 329-330 |
| Suppression of Urine | - | v. 1. | 200-201 |
| —— in Infants | - | v. 3. | 461-462 |

T.

| | | |
|---|-------|---------|
| Tape-Worm, <i>Mad. Nouffer's</i> Remedy | v. 1. | 84 |
| Tetanus, or Locked-Jaw | - | 101-102 |
| Teething | - | 108-122 |
| Temporary Loss of Speech | - | 105 |
| Testicles, Retention of them | v. 2. | 289-290 |
| Thirst, Excessive, or Polydipsia | v. 1. | 205-206 |
| Thrush | - | 35- 41 |
| —— Gangrenous or Putrid | - | 42- 43 |
| Tumefaction of the Prepuce | v. 2. | 290 |
| Tumours of the Scalp | - | 305-307 |
| —— Lymphatic, of the Head and Back | - | 307 |
| Tumours, Parenchymatous, (or soft and spongy) | v. 2. | 317-318 |
| Tongue, Cutting of | - | 276-277 |

| | PAGE |
|--|---------|
| Tongue—Suffocation from Swallowing the Point of it | 277-278 |
| Tooth-Ach | 246-247 |

U.

| | | |
|---|-------|---------|
| Ulcerated Sore-Throat and Scarlet-Fever | v. 1. | 142-145 |
| Ulceration of the Navel | v. 2. | 280-283 |
| Unkindly Separation of the Navel-String | - | 283-284 |
| Urine, Mucous | v. 1. | 198-200 |
| ——— Suppression of | - | 200-201 |
| ——— in Infants | v. 3. | 461-462 |
| ——— Incontinence of | v. 1. | 203-204 |

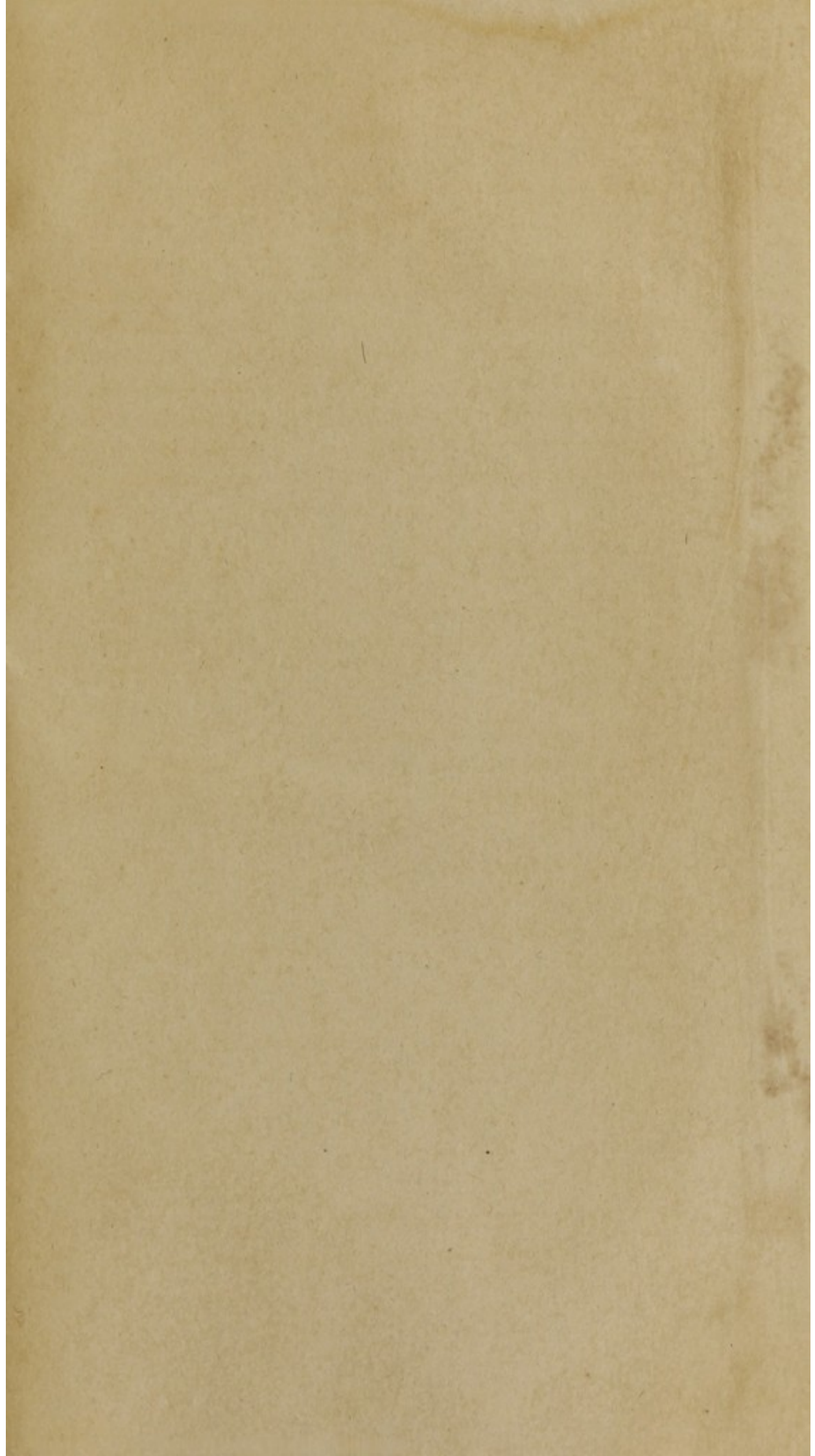
V.

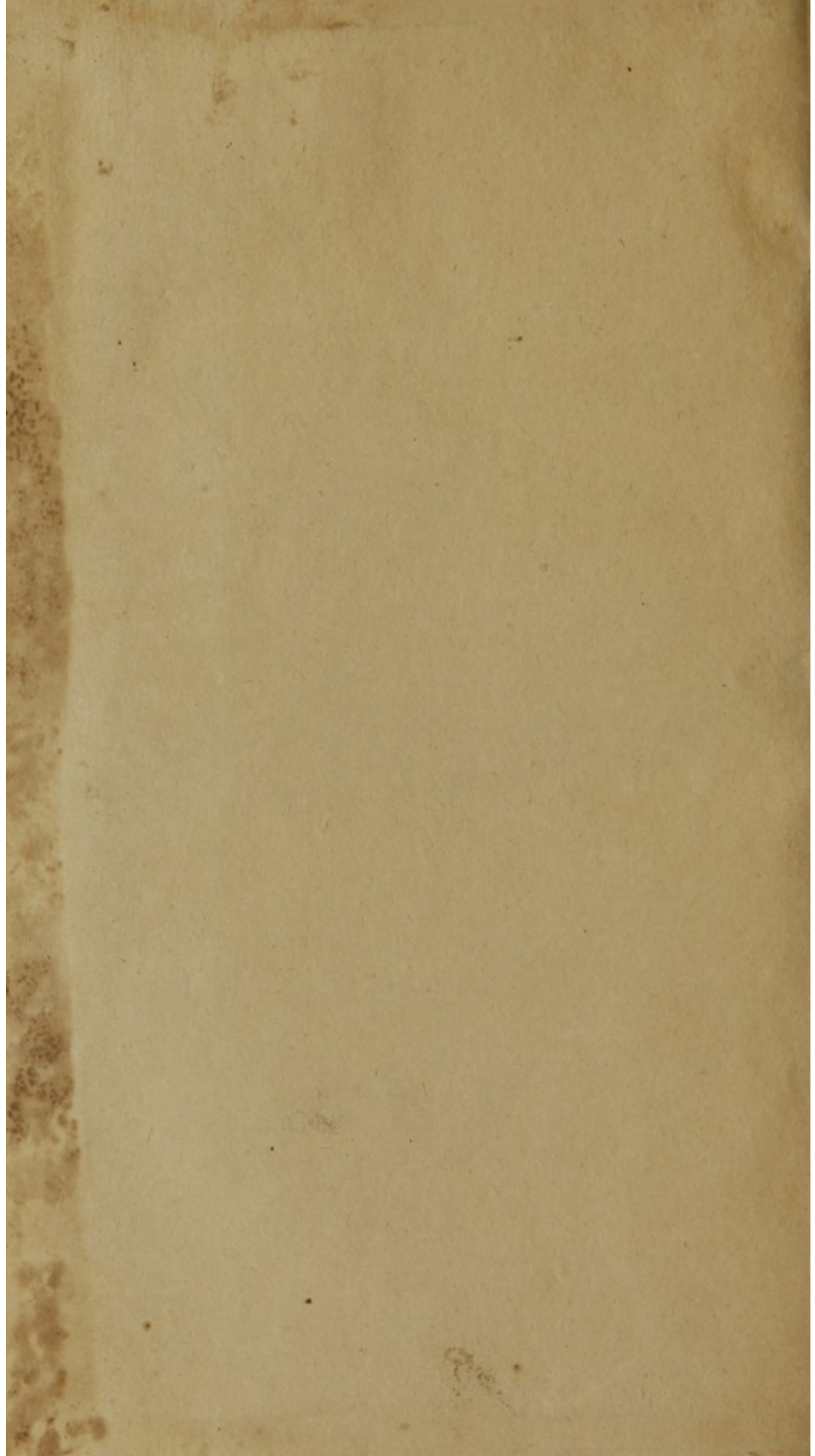
| | | |
|--|-------|---------|
| Vagina, Discharges from | v. 2. | 292-293 |
| ——— Imperforate | - | 331-332 |
| ——— Rectum opening into it | - | 332 |
| Vari and Valgi, or Distortion of the Extremities | - | 336-338 |
| Vomiting | v. 1. | 59- 63 |
| Venereal Sore-Eye | v. 2. | 238-239 |
| Venom of Insects, and of certain Animals | - | 294-296 |
| Venereal Disease, Hints on | - | 238 |
| Ventral, or Belly-Hernia, and Hepartomphalos | - | 318-319 |

W.

| | | |
|--|-------|---------|
| Watching, or Want of Sleep | v. 1. | 33- 35 |
| Watery-Eruption | - | 53- 54 |
| ——— Head | - | 149-156 |
| ——— Eye | v. 2. | 233 |
| ——— Gripes | v. 1. | 73- 74 |
| ——— Rupture | v. 2. | 287-288 |
| White-Swelling of the Joints | - | 257-258 |
| Whitlow | - | 265-266 |
| Wind and Costiveness | v. 1. | 29- 33 |
| Windy-Rupture | v. 2. | 288-289 |
| Worms | v. 1. | 78- 84 |
| ——— Tape, <i>Mad. Nouffer's</i> Remedy | - | 84 |

THE END.





Med. Hist.

WZ

270

U56t

1806

C.1

