Nosologia methodica oculorum: or, a treatise on the diseases of the eyes, selected and translated from the Latin of Francis Bossier de Sauvages; wherein the whole are methodically arranged: to which are also added, the descriptions and modes of cure, as recited by those authors who have written professedly on the various subjects herein enumerated. With annotations / By George Wallis.

#### **Contributors**

Boissier de la Croix de Sauvages, François, 1706-1767. Wallis, George, 1740-1802.

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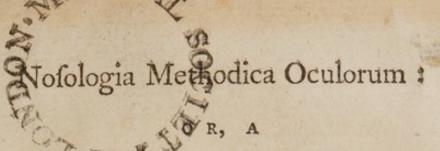
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SAUVAGES DE LA CROIX, F.B.





# TREATISE

ONTHE

## DISEASES OF THE EYES,

Selected and translated from the Latin of

## FRANCIS BOSSIER DE SAUVAGES;

WHEREIN

THE WHOLE ARE METHODICALLY ARRANGED:

TO WHICH ARE ALSO ADDED,

THE DESCRIPTIONS AND MODES OF CURE, AS RECITED BY THOSE AUTHORS WHO HAVE WRITTEN PROFESSEDLY ON THE VARIOUS SUBJECTS HEREIN ENU-MERATED.

WITH ANNOTATIONS.

### By GEORGE WALLIS, M. D.

No. 53. BROAD - STREET, SOHO.

Rationalem, quidem puto Medicinam esse debere; instrui vero ab evidentibus Causis; obscuris omnibus non a Cogitatione Artificis, sed ab ipså Arte rejectis.

CELSUS.

PRINTED FOR G.G. J. AND J. ROBINSON,
PATER-NOSTER ROW.

M DCC LXXXV.

Colored and the flower town of Lord and all Co. PANCIS HOSSIER DE CAUVACER A CONTACTOR AND PROPERTY AND STATE OF THE

## LORD HAWKE

## BARON TOWTON.

IN Dedications, my Lord, flattery has ever been confidered as the most palatable ingredient; and in one annexed to a work of this nature, which I now presume to present to your Lordship, it would be matter of offence to many that it is not seafoned with so pleasing a stimulant: some will probably be assonished that I should omit paying the common a 2 tribute

tribute to so dignified a character, whose recent conduct in public business has furnished me with so extensive a field for eulogy. But, my Lord, I am truly sensible that silent reflection on well-intended actions is replete with such satisfaction, that it ever amply compensates, in your Lordship's bosom, the trouble and satigue they may have occasioned.

have merited the voice of praife, I am actuated by more felfish motives—the impulses of a grateful heart.—It is not the duty, but the pride, of gratitude, which hath made me snatch the earliest opportunity of confessing the innumerable obligations I lie under to your Lordship.—To picture to the world my feelings, at this moment,

ment, would be doing them injustice ----to enumerate the favours I have received would, I know, be irksome to the delicacy of your fentiments.---Still, my Lord, I should think myfelf unworthy of the smiles of Fortune, if I should neglect to declare, that every species of felicity I can enjoy, every good which can accrue from the exertions of my weak abilities, must be attributed to the benevolence of your heart; for when my mind was haraffed with the most painful fensations, when calamity was my affociate, your Lordship's generofity and condescension made forrow an exile, inspired me with a degree of fortitude, by which I was enabled to conquer Misfortune, and give to the world the following publication; from whence, if any benefit should be derived to mankind, your Lordship's goodness must be considered as the primary source.

I have the Honor to be,

with the greatest Deference,

My Lord,

Your Lordship's most obedient,

and devoted Servant,

THE AUTHOR,

# PREFACE.

THE Eye, that invaluable organ, productive of fuch infinite felicity to the human race, has employed the pens of various authors, still few of them have given a complete history of its diseases, specifying their varieties, or enumerating their species, in fuch a manner as to render the knowledge of them fufficiently copious; or to lead us to those various modes of cure their particular deviations from each other render absolutely necessary ;-for we find that, though some diseases may be of the same genera, yet their varieties require methods of medical application different, nay, even diametrically oppofite to each other; how much more so then the different species ?- In reading over the works of the accurate and laborious SAu-VAGES, it appeared that he feemed to have made a more perfect collection of the fubject than any of his predecessors; and though fome have written fince his time, their works have been, in general, too confined, especially those of more modern date, presented to

the

the world in an English dress, so that a selection and translation of what Sauvages had scattered under different heads in his Nosology, was thought would not be a work totally useless; -indeed to a particular class of practitioners, it was confidered as a performance which might be extremely advantageous.-To the learned adepts it promises little, as they are capable of acquiring knowledge from the fountain from whence this is drawn. -To the ignorant felf-created doctors and furgeons, who start into practice from the most fervile offices of life, arrogantly assume to themselves the right of prescribing, and impudently attempt to impose on the credulity of those who become martyrs to their preposterous presumption, it can be of no fervice; for the road to true knowledge they are ever incapable of pursuing, be it rendered ever fo plain; they content themselves with the art of deception, and study to steal to the purses of their patients by pomp and vain boafting. To the industrious and conscientious medical investigator, whose education has not qualified him for confulting any works, except those written in his own language, yet who thirsts for every necessary information requisite for the prosecution of one of the most noble arts, it may be of singular utility—For the Editor has endeavoured to give a view of those diseases which happen to the Eye distinctly, forming a complete work on that subject; and though he has adhered in his translation, as close to the idiomatical nature of the two languages as they would permit, he has also taken the liberty of attempting to anglicise, if he may be allowed the expression, the terms by which the various complaints are known in medical writers.

The use he proposes by adapting the terms of the Greek and Latin authors, given to diseases, to the English ear, is to render them more familiar to the English reader, and more easily retained in the memory——Indeed it has always been considered as a task replete with much difficulty; the English language itself affords us not sufficient power to comprize so much in one term as either of the other; for, in speaking of diseases, were we to be confined to express our-felves totally consistent with the phraseolo-

gy of this country, we should be under the necessity of giving descriptions, rather than reciting the names by which they are diftinguished: - that this has long been considered to be the case it is obvious, from various authors being under the necessity of introducing Greek and other terms, and matriculating them with our own language by changing their terminations chiefly, or otherwife altering them for the fake of euphony, fuch as rendered them most agreeable to the ear, and gave them the found of our vernacular language, viz. Epilepsia, Epilepsy-Hysteria, Hysterics-Priapismus, Priapism-Hæmorrhagia, Hemorrhage-Apoplexia, Apoplexy-Rheumatismus, Rheumatism-Colic, Colic, &c. &c. &c.—This method however has not been confined to our art alone, but is generally diffused through the whole of our language; and we find thefe founds, familiarized to the ear, convey the precise meaning, as well as by any other letters conjoined, forming words purely English, that human understanding could invent.

As this liberty has been taken already, the Editor has only made a larger stride in the medical hemisphere, though not without pilots, confidered amongst the Hippocratic fect, as the most fagacious. -- Notwithstanding which it may, perhaps, be thought that terms difficult to be retained in their native form by readers, not conversant with the language, will fcarcely be rendered more eafily retentive by altering their terminations, and modifying them to the English idiom; -at the first view it may appear so, still if we confider the variety of words fo deduced; fo commonly made use of, and so perfectly understood by those who know not an iota of that language from whence they were derived, we shall find that perhaps the very reason why such vast numbers lie buried, is because they want merely an English tone, which depends on the termination; and wanting that, they are neglected, and not brought into common use, which would and can only render words readily intelligible, be they of what description they will.

Nor has the Editor alone followed those examples which have been set of altering the termi-

terminations, and otherwife modifying foreign words, he has also imitated the antient and fome of the modern authors in compounding terms, that the difeases, from their very names, may be as well understood by the English reader, as by the more learned and thefe he has contrived fo as to express either the parts affected, the causes from whence they originated, or the effects produced, each of which kept closest to, or gave the most clear idea of the word originally used. And as the medical profession is not, as formerly, confined to men of erudition, nay, indeed, some of our very teachers in its different branches, affect to laugh at, and despise, classical knowledge; works of this nature, reduced to a common standard, in respect to language, become more necesfary, that the terms which distinguish those maladies fuch practitioners are called to relieve, may by them at least be understood; befides it would even affift the younger branches in discovering the nature of the disease; very often be expressive of the cause, and point out the virtues necessary in the applications, and indeed become a medicinal epitome,

epitome, generally useful, and always satisfactory.

On the other hand, fome indeed pay fo blind and fo flavish an obedience to the antients, that they labor not only to preserve those terms which are trifling, and extremely inexpressive, but also apply them to the difeases to which they were total strangers;to these probably this attempt may be offenfive; fo would the most indefatigable application in the fearch of truth, unclogged with the lumber of antiquity—like a large Gothic pile, which strikes the eye of the antiquarian with grandeur from the useless mass of matter with which it is loaded; fo the ears of those men are delighted with the sounds of rumbling confonants inadequate to the idea familiar words would more plainly convey. And this must be the case, if we consider the errors into which the antients were naturally led by their various hypotheses built not upon experiment, but ingenious conceit .-

The improvements of later times have fupplied us with information unknown to them—have given us to understand the causes

causes of many diseases very different from their conceptions, and led us to modes of cure, which prove their doctrines fallacious—Why then in these cases retain their terms? They serve only to perplex and bewilder the young student, and occasion him to waste his time in useless enquiries.—This should, by all means, be avoided, and we should rather incessantly labor to constitute a path to medical science pleasant, easy, and the most certain—all of which are necessary in pursuits already wrapt up, with all our aids, in too much obscurity.

The Editor's attention in this work, has not been folely directed to terms; but he has not thought it unworthy of his care to form a new arrangement, by which means he might shew the seat of the disease; a matter essentially necessary in the art of healing—In doing this he has been under the necessity of inserting in the annexed table, the same disease repeatedly, according to the particular parts in which it was known to form itself; not at the same time neglecting the class and order as observed by Sau-

of the disorder might be discovered, viz.

Ophthalmia cancrosa—has three infertions in his table, by which means, we find, it has its origin in the eye-lid, the angle of the eye, and the ball also.—Its class—pains; its order—of the head; &c.

This plan was adopted to lead the practitioner, on viewing the Eye, to declare the disease, or readily to refer at once to its description and cure;—for though by the term Ophthalmy is generally understood inflammations of the Eye, and those external, we find that is not always the case, for there are Ophthalmies which have no redness—and Ophthalmies affecting different parts of the Eyes—which are attended with more or less acute pains of the head—and he has more than once known a disease deep-seated in the Eye mistaken for a cephalalgia, and as such treated.

The great use of minutely searching for, and explaining in the most familiar manner, the seat of the disease, is too obvious to need any thing surther being said on this subject;

notwithstanding it has been urged, that attempts of this kind would carry along with them unpleasing consequences, inasmuch as they tended to make the mysteries of this art eafy and intelligible to common capacities; and hence every old woman would become a physician. It scarce can be supposed an opinion in itself so illiberal will have any weight; with those, however, who are bleffed with a small share of philanthropy, it furely cannot; -- for it is well known the lives of thousands are every day committed to the care of the unlettered practitioners of physick, who, for want of proper means of acquiring a minute knowledge of the different diseases which come under their inspection, blunder on in error, fometimes become the executioners, and very often the torturors of those unhappy wretches, who place confidence in them, plunging their patients if not into the arms of death, into difeases, under which they languish and drag on a painful and miserable existence.

If then any means can be found by which an extensive knowledge on any medical subject can be most universally conveyed, and diffused amongst all classes of practitioners. those means must be considered beneficial, as they promife utility to fociety in general. -They must be pleasing to him who devotes his leifure hours to fuch labor; as furely there can be no felicity adequate to the exertion of man's abilities for the relief of the wretched; -what fatisfaction must he not feel at fnatching a fellow-creature from deplorable diftrefs, mitigating his miferies, and enabling him to profecute his avocations with pleasure and emolument !-What joy must he not experience at being the instrument of preservation to some tender and affectionate parent, upon whose care and attention the happiness of a helpless and innocent progeny is founded! Every means therefore calculated to promote fuch an end, must merit some degree of approbation; and it is hoped this work will be confidered in that light; as it has no other view but that of contributing its mite towards producing public good, and the general happiness of mankind. Should it be fortunate enough

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the Editor's labor will be amply repaid, and he may be encouraged to purfue this scheme on a much larger scale, and give the whole of Sauvages's Nosology, with annotations, to the world in an English dress.

# NOSOLOGICAL TABLE,

WHEREIN

# The DISEASES of the EYES ARE METHODICALLY ARRANGED.

-							
	*** Observe, at the Termination of the Names of Diseases, there often occur Capital Letters, which have the following Explanation.						
-	indicates the Disease to be Acute. Short, que danger.						
C	CHRONIC,	or of long conti	inuance, and dan-				
L	TEDIOUS,	or lingering wit	thout danger.				
P		AL, remittent, or					
D	. — Doubtfu	L, or whose du	ration and danger				
	vary, or	are not fufficientl	y certain.				
-							
	SECTION the FIRST.	1 Class from	1 Order from				
	DISEASES OF THE EYE-LASHES,	C	SAUVAGES.				
	AND EYE-LIDS.						
	§. 1.						
	TRICHIASIS.	7. Dolores.	2. Capitis.				
	Trichiafy, or ciliary Introversion.		Of the Head.				
3	Ophthalmia trichiafis.						
	Ophthalmy from a Trichiafy.						
	§. 2.						
	HORDEOLUM.	t. Vitia.	4. Excrescentiæ.				
	Stye, Stian, or Stithe.	Deformities.	Excrescences,				
2	Grando.	***					
3	Grandinous immoveable Stian.  — Chalazium.	A TO PROPERTY.					
2	Grandinous moveable Stian.						
4	Siro.						
	Inflammatorily disposed scirrhous						
	Stian.						
5	Sebaceous, or melleous Stian.						
6	verrucofum.						
1	Warty Stian.						
7	hydatidofum.	Anna di la					
	Hydatidous, or watery Stian.						

	DISEASES.	ICLASS.	ORDER.
	210210		1000
	§. 3.		
	BLEPHAROPTOSIS.	I. Vitia.	6. Ectopiæ.
	Blepharoptofy, or preternatural Def-	Deformities.	Diflocations.
	cent of the Eye-lid.	2 2 7 2	
8	Blepharoptofis genuina.	Grant State of State	
	True Blepharoptofy.		
9	lagophthalmus.		
,	Retracted Blepharoptofy, or Hare	NIG OTHER	
	Eye.		
10	ectropium.		
	Extroversion of the Eye-lids.	Parameter 30	TO STANFORM THE
II	entropium.	Dillin Farmin's I	min 10080
	Introvertion of the Eye-lids.		
		roA se or short	Dords Stanishing of
138	9. 4.	- Data	0
12	Ophthalmia tuberculofa.	7. Dolores.	2. Capitis.
	Tuberculous Ophthalmy.	Pains.	Of the Head.
13	trachoma.		
	Tettery, callous, or feabrous Oph-	The same of the sa	
	thalmy.		
14	—— ficea.		
-717	Dry, tarfal Ophthalmy.		The second second
		TV .	
15	—— ferophulofa.		
-	Scrophulous Ophthalmy.		
16	Cancrofa.		
	Cancerous Ophthalmy.	all de dat 191	THE PARTY IN
17	a Lagophthalmo.		
,	Hare-eyed Ophthalmy.		
78	- mucosa puriformis.		
	Muco-puriform Ophthalmy.		
	puffulofit.	THE REAL PROPERTY OF THE PARTY	
	eryfipelatofa.		THE PERSON
	- bumida.		
	chemofts.	the state of the state of	dandanda !
	- Taraxis.		
	venerea.		
	§. 5.		
*0		TI.	0 10
19		9. Fluxus.	3. Seri fluxus.
	Sebaceous Epiphora.	Fluxes.	Flux of Serum.
20	- ab ectropio.		
	Epiphora from palpebraic Extro-	AND THE REAL PROPERTY.	
	verfion.		
1.00	§. 6.	in fairment with	
21	Caligo a Symblepharofi.	6. Debilitates.	1. Dyfæsthesiæ.
	Caligo from Symblepharofy, or	Debilities.	Imperfect, or abo-
	glob-ocular-palpebraic Coalef-	The state of the s	lished Sensations.
	cence.		Callettal
22	ancyloblepharon.		
	Caligo from ancyloblepharofy, or	and the same	Charleted warning
-	palpebraic Coalescence.	TOTAL PRINT OF	Stores to All Stores
	The state of the s		~
,			Caligo

		~ 1.	AAA
	DISEASES.	CLASS.	ORDER.
23	Caligo a Blepharoptofi. Caligo from a Blepharoptofy, or preternatural Descent of the Eye-lid.	6. Debilitates. Debilities.	Imperfect, or abortifhed Senfations.
24	A Caligo from a Pacheablepha- rofy, or palpebraic incraffation.  a Lupia.	del to distribute	and a
26	Caligo from lupial palpebraic  Tubercles.  a Cancro.	Septime to the second	TA COLUMN
	Caligo from cancerous affection.	Epiphora, or fr efficients agricope,	Parkemana menty
		dqiqë baye rem	a nimplyz 34
	SECTION the SECOND.	appliers, or free	2 antelisa A
	Angles of the Eyes and La- CHRYMAL PASSAGES.	cyane tumor.	Rhyadal Fr
. I	§. 1.	dininution.	0.000
	Ophthalmia angularis. Angular Ophthalmy.	7. Dolores. Pains.	2. Capitis. Of the Head,
	From a tumor of the temporal canthus.	and the second	Cold Spring
	a Rhyade. From tachrymo-glandular erofion.		Hot Epiphe  Collebration
	a Caruncu'æ lachrymalis In- flammatione. From inflammation of the lachry-		16 Variolous #
	mal Caruncle. Ophthalmia cancrofa.	in to the same	d smilna.
	fcrophulofa.		igh hafted
	PTERYGIUM. Pterygy, a fleshy, or membrana-vas-	r. Vitia. Deformities.	4. Excrescentiæ. Excrescences.
2	Pterygium ungula.	2.2	a sinthean O
3	Ungulous, or nail-like angular Excrefeence. Pterygium pannus.	in in a contract of	or reliabel of
	Web-like palpebraic angular Ex- crescence.		
4	Caligo a Pterygio. Caligo from a Pterygy, &c.	3.3	
5	a farcomate.  Caligo from a Sarcome, or palpe-		dimorti
E HY	b 3		traic

XXII I A B L E.						
-1	DISEASES.	CLASS.	ORDER.			
	bra'c flesh like angular Ex- crescence.  Caligo a Cancro.  Sarcoma encanthis.  Interstitial palpebraic or lachry-	Debilities.	1. Dyfæsthesiæ. Imperfect, or abolished Sensations. 4. Excrescentiæ. Excrescences.			
3	EPIPHORA. Epiphora, or ocular efflux.  A pathemate.	9. Fluxus, Fluxes.	3. Seri fluxus. Flow of Serum,			
9	Pathematous Epiphora, or from mental affection.  ab ægylope.  Ægylopic, or goat-eyed Epiphora.  ab anchylope.					
3:	Anchylopic Epiphora, or from an angular cystic tumor.  ———————————————————————————————————	TO MAN AND MAN AND AND AND AND AND AND AND AND AND A	TO WINKA			
12	fion, or diminution.  cruenta.  Sanguineous Epiphora.  frigida.		Calminated to			
25	Cold Epiphora.  ———————————————————————————————————		on a south for the state of the			
16	Ophthalmic Epiphora.  ———————————————————————————————————		Trought of the Control of the Contro			
18	Lacteal Epiphora.  ———————————————————————————————————		Cal Con Manual			
19	S. 5. Ophthalmia febricofa. Febrile Ophthalmy.	7. Dolores. Pains.	2. Capitis. Of the Head,			
20	§. 6.  Exophthalmia a protuberantia.  Exophthalmy from intra-orbital protuberance.	1. Vitia. Deformities.	6. Ectopiæ. Diflocations, Exoph-			

	DISEASES.	CLASS.	ORDER.
	Exophthalmia a scirrho & cancro intra-orbitali.  From Scirrhus or Cancer.	Deformities.	6. Ectopiæ. Diflocations.
21	Strabismus caligantium a Pterygio. Caliginous Strabism, or Squinting,	4. Spafmi. Spafins.	r. Tonici partia- lis, Partial mufcular Affection.
-	SECTION the THIRD. THE CONJUNCTIVE MEMBRANE.	Agradiki	Single Line of S
	OPHTHALMIA.	7. Dolores.	2. Capitis.
2	Ophthalmy. Taraxis.	Pains.	Of the Head.
3	Taraxical, or fimply external Ophthalmy.  puftulofa.		A Carious San
3	Pustulous Ophthalmy. erysipelatofa.		Bish man
4	Eryfipelatous Ophthalmy.  humida.	Lismon Amon	To the second
5	Humid Ophthalmy.  — chemofis.	-21	
6	Chemofic, or conjunctiva cornea- palpebraic Ophthalmy.  Phlyctænodes.	The same	
~	Phlyctænoid, or veficular Oph- thalmy.		
7	Metastatic Ophthalmy, or from		
8	retrocession of morbid matter.  fyphilitica.	.5 .7	Legrenia
	Venereal Ophthalmy.  —— fcrophulofa.  —— ab ungue.	48	deligate -
9	§. 2.	6. Debilitates.	1. Dyfæsthesiæ.
,	Hypotphagmatic, or nigro-fan- guinary conjunctival Caligo.	Debilities.	Imperfect, or abo- lished Sensations.
	venerea ancyloblopharon.		
	Amblyopia bydrophthalmica.  § 3.		1100
10	Exophthalmy, from a conjunc-	1. Vitia. Deformities.	6. Ectopiæ, Dillocations.
***	tiva-corneal-palpebraic Oph thalmy. Catarasta clavata.	and the second	3
- 1	P. C.	A SOUR-LOOK OF	SECTION

DISEASES.	CLASS.	ORDER.
SECTION the FOURTH.	alp M. ednish a	enoted to be
		Toma Court
CORNEAL TUNIC, OR HORN-LIKE MEMBRANE.		
NIEMBRANE.		
§. 1.	NAME OF STREET	Commission of the Commission o
Ophthalmia ab elcomate.	7. Dolores,	2. Capitis.
Elcomatic, or ulcerous Ophthal-	Pains.	Of the Head.
my.	ALL CONTRACTOR CONTRACTOR OF THE PARTY OF TH	
Argema.	MINITED M	SECTIO
Argemous, or filvery.  Botrion.		
Botrionic,	CONTRACTOR CARACTER	no cook and
3 — Epicauma,		OPHTHALMIA
Ерісаннаі.		Ophriniany
4 Encauma,		A TOTAL OF THE PARTY OF THE PAR
Encaumal.	the County seems	designate T
5 — Caloma,		Colich
Cælomatic.		John s
6 — Elcidrion.	Symbols to	Pullulous O
Elcidrionic.	artural.	erylips
a Fistula Cornea,	· Opinicining.	Entipolator
Ophthalmy from a corneal Fif		bimud bumid
tula,	. Troising.	IqO bimuH
ab ungue.		S   chame
Ungueous or nail-like Ophthalmy.	map-aviencinos	Chemotic, o
Ophthalmia puftulofa.	- distripued of this	palpeb
fcrophulofa chemofis.	A THE STATE OF THE	26(17)
- PhlyAanodes,	CALIBRATICA ED !	aon any chair
venerea.		Tables and the same
a synechia,	Data Salan	Niturina I I
§. 2.	um Lista mela mal	CONTRACT OF THE PARTY OF THE PA
LEUCOMA.	I. Vitia.	1. Maculæ:
Leucomy, or corneal fpeck,	Deformities.	Spots or specks.
nephelium.		Storil
Nebulous, or cloudy fpeck.	Visit Visit	and do
albugo.		
Albuginous, or pearly ditto.	a more	clonvil miles
cicatrix.	comin to sign	gangaguli
Corneal speck from a cicatrix, or	de Davidou Cai	Transport Co.
fcar.		TORSE -
gerontoxon.	- ingiveres	dom -
Senil-arcuated corneal speck.	aphthe initial	Ambiggie sya
- Glaucofis Ætii.		
§. 3.	Con . Domondo e	cimbole by II
CALIGO.	6. Debilitates.	1. Dyfæsthesiæ.
Caligo, or total, or partial obfcu-	Debilities	Imperfect, or abo
rity of Vision.		lished Sensations.
a leucomate.	and,	Catagorada clos
Caligo from a corneal speck.		Calig

DISEASES.	CLASS.	ORDER.
Caligo a nephelio. Caligo from corneal opacity.  Caligo from a corneal hernia.  Caligo from a corneal hernia.  Venereal Caligo.  12  Caligo from accuracion.	6. Debilitates. Debilities.	1. Dyfæsthesiæ. Imperfect or abo- lished Sensations.
Caligo from corneal corrugation.  §. 4.  AMBLYOPIA.  Amblyopy, debility of Sight, abfolute or relative, with ocular inopacity.  diffitorum.  Prefbytal, or long-fighted Ambly-	S india-keep ny	Appendicuts Appendicuts Appendicuts Caligo from
opy.  proximorum.  Myopic, or short fighted ditto.  luscorum.  Amblyopy from luscity, or oblique vision.  hydrophthalmica.	oue Cuisent,	Exceptioning the Standard Stan
Hydrophthalmic Amblyopy.  Strabifmus a lufcitate.  Strabifm, or fquinting from o oblique vision.  Strabifmus caligantium.  Leucoma.  Staphyloma.  Caligo a staphylomate.  Exophthalmia a staphylomate.	4. Spafmi. Spafms.	les. Partial mufcular Affections.
SECTION the FIFTH.  THE CHAMBERS OF THE EYE.  Caligo hypozma.  Intro-cameral fanguineous Caligo  lactea:  Lacteal Caligo.  Strabifmus caligantium.  Hypopyum.	6. Debilitates.	I. Dyfæsthesiæ. Imperfect or abo- lished Sensations.
SECTION the SIXTH. THE UVEA AND ITS MEMBRANES.  §. 1.		Paillan Account of the Country of th
Ophthalmia a fynechia.  Uvea-corneal Ophthalmy,	7. Dolores, Pains.	2. Capitis. Of the Head.

	DISEASES.	CLASS.	ORDER.
2	Ophthalmia uvea. Uveal Ophthalmy.	7. Dolores. Pains.	2. Capitis. Of the Head.
	STAPHYLOMA. Staphylomy, or aqueo-corneal Cyst, or uveal Hernia.	Deformities.	5. Cystides. Cysts.
3 4	Caligo a staphylomate.  Caligo from an uveal Hernia.  ab ectafi.	6. Debilitates. Debilities.	1. Dyfæsthesiæ. Impersect, or abo- lished Sensations.
5	Appendicula-pupillary Caligo.  a fynifefi.  Caligo from an uvea-labial Coalefcence.		
6	Cataracta membranacea.  Membranaceous Cataract.	in a sub-part	
7	Exophthalmia a staphylomate. Exophthalmy from a Staphylomy.	Deformities.	6. Ectopiæ. Diflocations.
8	Amblyopia meridiana.  Meridian Amblyopy.	6. Debilitates. Debilities.	1. Dyfæsthesiæ. Imperfect, or abo- lished Sensations,
9	\$. 6.  Amaurofis a myofi.  Amaurofy, from a Myofy, or confiriction of the pupil.  ———————————————————————————————————		
	—— dissitorum. —— luscorum. Ophthalmia tenebricosa.		
	SECTION the SEVENTH.		
4	CRYSTALLINE LENS, AND ITS CAPSULE.	i Deminingulati	
Y	Ophthalmia a lente crystallina adauc- ta.		
	Ophthalmy from an enlarged cry- falline Lens.  Ophthalmia chemofis.  —Membranæ anterioris Uveæ.	T 10 Z od 35	A GOLDAN
	CATARACTA. Cataract,		THE RESERVE
1	atrano	o pointing i	Cataracta

	DISEASES.	CLASS.	ORDER.
2	Cataracta vera.  True Cataract.  2. — virgata.  Striated.  b. — purulenta.  Purulent.  c. — agyrias.  Argenteal, or filvery.  d. — clavata.  clavated, or nail-like.  e. — luxata.  Diflocated.	7. Debilitates. Debilities.	I. Dyfæsthesiæ. Impersect, or abo- lished Sensations.
3	f. — fynchefi.  Moveable. — glaucoma.  Glaucomy, or exficcated decreafed Cataract.	THERES	
5	Anti-glaucoma. Anti-glaucomy, or exficcated increased Cataract. — fecundaria. Secondary Cataract.		Tagenetic trees
6	\$\strabifmus a crystallino.  Strabifm from a dislocation of the crystalline Lens.  — a luscitate.  Amblyopia meridiana.  — disstorum.  — proximorum.  — luscorum.	4. Spaimi. Spaims.	1. Tonici partis- les. Partial mufcular Affections.
	SECTION the EIGHTH. VITREOUS HUMOR. §. 1.		
R	Ophthalmia tenebricofa. Tenebricofe, or vitreo-pupillary Ophthalmy. — choroidea.	7. Dolores. Pains.	3. Capitis. Of the Head.
180	Exophthalmia.  Exophthalmy, or protrusion of the Eye.  hydropica.	1. Vitia. Deformities.	6. Ectopiæ. Diflocations.
3	Dropfical. Exophthalmy.		Exopb.

	ada p p	SEASES.	1	CLASS.	ORDER:
	Exophthalmia	bydrophthalmica.		Deformities.	6. Ectopiæ. Diflocations.
3	Apostema syn Abscess from		quec	.che	5. Cystides. Cysts.
4	Amaurosis a s	§. 4.		6. Debilitates.	2. Dyfæsthesiæ.
	Amaurofy Cataracta a fy	from a Synchefy,	&c.		Imperfect, or abo- lished Sensations.
	Amblyopia pro			,a	L'Amocaron (And Market November 1
	SECTIO	N the NINT	H.	or exficented decor	Gladromy,
	I	RETINA.	-ai	ongs. my, or exfictant. Cataract.	Amisgland Amisgland
	Suffusio.	§. I.		8. Vefaniæ.	t. Hallucinatio-
7	Suffusion.  myod  Myodal, or	cs. fly-form Suffation	1.	Unnatural per-	nes. Depravities.
2	Reticular S	laris.	adi	m a differentian di	Styabiem my
3	Scintillating fion.	or fparkling Su	ffu-	ealana.	Amblyon a me
	a. Suffusion ra Radiating. b. Suffusion co	dians. rufcans, aut fulgur	ans.		- proximon
	Corufcating c. Suffusio Da	, or illuminating.	-	THOIR STORT	SECTIO
4	Coloring.	or ignipluvial.		. somuH ago:	
5	Transformit	ng.		§. I.	• Ophthalmia to
.3	Distorting.	sam.	\$10	or viuco-pupil	Tenchricols
7	Amblyopia cre	§. 2. puscularis.		6. Debilitates.	r. Dyfæsthesiæ. Impersect, or abo-
8.	pbfe	oluta.  complete Amblyo	bo	v. or protruffor	lished Sensations.
	men diffi	idiana.		ropica. Soplabilmy:	a Drophest.
					Anibly -

	DISEASES.	CLASS.	ORDER.
	Amblyopia luscorum. Ophthalmia.	6. Debilitates. Debilities.	1. Dyfæsthesæ. Imperfect, or abo- lished Sensations.
9 10 11 11 11 11 11 11 11 11 11 11 11 11	Plethoric Amaurofy.  exanthematica.  Exanthematic Amaurofy.  a narcoticis.  Amaurofy from Narcotics.  Foricarious Amaurofy, or from		A Land Control of the
14	cleaning of Privies.  traumatica.  §. 4.  Strabifmus Buffoni. Buffon's Strabifm.  connivens. divergens. inequalis Altitudinis.  Strabifmus a lufcitate. Ophthalmia humida.  SECTION the TENTH.	4. Spafmi. Spafms.	r. Tonici partia- les. Partial mufcular Affections.
	S. I. Ophthalmia choroidæa. Choroideal Ophthalmy.	7. Dolores. Pains.	2. Capitis. Of the Head.
1 2	SECTION the ELEVENTH.  Bulb of the Eye.  §. 1.  Exophthalmia purulenta. Purulent Exophthalmy.  — cancrofa.  Cancerous Exophthalmy.	t. Vitia. Deformities.	6. Ectopiæ. Diflocations.
3	Traumatic Exophthalmy.	1000	Exoph-

454						
	DISEASES.	CLASS.	ORDER.			
4 5 6	Exophthalmia critica.  Critical Exophthalmy.  a conatibus.  Exophthalmy from strong Exertions.  a steatomate.  Steatomatous Exophthalmy.  Apostema synchesis.  Exophthalmia purulenta.  §. 2.	Deformities.	6. Ectopiæ. Diflocations.			
	Amaurofis traumatica.  Traumatic Amaurofy.  ———————————————————————————————————	6. Debilitates. Debilities.	1. Dyfæsshesiæ. Imperfect, or abo- lished Sensations.			
	Strabismus a paralysi. Diplopia a catarrho.  SECTION the TWELFTH.					
ī	OPTIC NERVE.  §. 1.  Suffusio dimidians Objecta.  Dimidating Suffusion, or creating a division of Objects.	8. Vefaniæ. Unnatural Perceptions.	r. Hallucination nes. Depravities.			
2 3	DIPLOPIA.  Diplopy, or double Sight.  — pyrectica,  Febrile Diplopy.  — a debilitate.  From debility.					
4	Prefbytal Diplopy:					
5	Diplopy from Contusion.	8.7				
6	Diplopy from fright.  ———————————————————————————————————					
7	Diplopy from inebriety.	and the second	Contribution			
8	§. 3. Amaurofis pituitofa. Pituitous Amaurofy.	6. Debilitates. Debilities.	1. Dyfæsthesiæ. Imperiect or abo- lished Sensations.			

	DISEASES.	CLASS.	ORDER.
9 14 11 14 11	Congenital Amaurofy.  intermittens.  Intermittent Amaurofy.  rachialgica.  Rachialgic Amaurofy.  hysterica.  Hysteric Amaurofy.  exhaustorum.  Amaurofy from decaying nature	6. Debilitates. Debilities.	r. Dyfæsthesiæ. Imperfect, or abolished Sensations.
	SECTION the THIRTEENTH.  Muscles of the Eye.  §. 1.		
2	Exophthalmia a paralyfi.  Paralytic Exophthalmy.  a strangulatu.  Exophthalmy from strangulation.  traumatica.  a conatibus.	Deformities.	6. Ectopiæ. Diflocations.
3	Diplopia a fpafmo. Spafmodic Diplopy.	S. Vefaniæ. Unnatural Per-	I. Hallucinationes.
4	Paralytic Diplopy.	ceptions.	Depravities.
5	Diplopy from palpebraic coalef cence.  a catarrho.  Catarrhal Diplopy.		
7	Spafmodic Amaurofy.	6. Debilitates. Debilities.	t. Dyfæsthesiæ. Imperfect, or abo- lished Sensations.
8	STRABISMUS. Strabifm, or Squinting.  vulgaris. Common Strabifm, or Squinting.	4. Spalini. Spalins.	1. Tonici partia- les. Partial muscular Affect ons,

DISEASES.	CLASS.	ORDER.
Strabismus spasmodicus. Spasmodic Strabism.  a paralysi. Paralytic Strabism.  Catarrhal Strabism.  fymptomaticus. Symptomatic Strabism.  lagophthalmus. Hare-eyed Strabism.  Myopic Strabism.  Myopic Strabism.  Equinoctial Strabism.  Caligo a blepharoptosi.  SECTION the FOURTEENTH  The Fat, Cellular Membrani	a market man	les. Partial mufcular Affections.
IN THE INFERIOR PART OF THE ORBIT OF THE EYE, AND THE ORBIT ITSELF.  §. I.  Exophthalmia a protuberantia.  Exopthalmy from intra-orbital Protuberance.  ———————————————————————————————————	I. Vitia. Deformities.	6. Ectopiæ. Diflocations.

# Nofologia Methodica Oculorum:

OR, A

# TREATISE

ONTHE

### DISEASES OF THE EYES.

#### SECTION I.

DISEASES of the EYE LASHES and EYE LIDS.

### §. I.

1. TRICHIASIS, TRICHIASY, or CILI-

THIS is a preternatural direction of the Eye Lashes towards the Globe of the Eye; when there is a double row of the Eye-lashes upon the internal surface of the Eye-lids, it is called DISTÆCHIASIS.

If the Eye-lashes, being very long, should be hid under the Eye-lids, an Ophthalmy arises; which, when the hair is taken away, disappears; but since the Eye-lashes grow inward, owing to small ulcers of the edge of the Eye-lid, they prick the Eye acutely, inflame, and ulcerate it, till they are extir-

B

pated,

It is to no purpose to cut off the pated. which afterwards shoot up more hairs. briftly, they ought to be plucked up by the roots, one by one, some days interposing between the different operations; and then, in order to prevent fresh ones from succeeding, the place from whence they were eradicated, should, with extreme caution, be cauterized with Lapis Infernalis; some, indeed, advise, when there is no other remedy, to cut away totally the margin of the Eyelid which is loaded with Hair. See Heister's Surgery, chap. 46. and St. Yves, chap. 8. p. 8.

The Diseases mentioned by Mr. James Ware under Trichiasis, more properly belong to the Blepharoptosis entropium. See §. 3. Sp. 11. Olaus Acrel observes, that the Trichiasis is generally the Effect of chronic Ophthalmy; in most of the Cases, which he saw, the patient was deprived of Sight; but in all of them a Cure was effected by cutting out a portion of the outward membrane of the Eye-Lids, which was always preternaturally elongated and relaxed. See Lond. Med. Journ. vol. 3. p. 5. and vol. 1. p. 120.

SAUVAGES, and after him Dr. Cullen, has confidered this Disease as a Species of Ophthalmy, and denominated it Ophthalmy, and it is also arranged with the Blepharoptosis entropium.—In the last it should only be regarded as symptomatic.

There obviously appears to be only one Species of this Complaint, viz.

The ciliary Introversion, in which case the Inflammation of the Eye is merely a Symptom;—and this certainly arises from a derangement of the Eye-lashes themselves; in all the cases enumerated by St. Yves, Mr. Bell, and others, it is only a Symptom, as it proceeds from some affection of the Eye-Lid, which turning the cartilaginous Margin inwardly, induces the Disease. See §. 3. Sp. 11.

In the Cure of this Disease, simply considered, after plucking out the Eye-lashes, as above recommended, when they have grown again about half their size, they are to be bent outwards, and confined with some mucilage, or adhesive plaister, and kept in that situation for some time, which will generally succeed, and prevent our having recourse to more severe and painful Operations.

§. 2.

HORDEOLUM. So called from its appearance being fimilar to a Grain of Barley.---Orgeolet.

STYE, STIAN, OF STITHE.

This is a hard Tumor, almost insensible, of the color of the Skin, seldom red, growing to the edge of the Eye-lid, for the most part spherical, but of a size less than a pea.

2. Hordeolum-Grando----AETII; with the Greeks, Crithe; the French Grain de Grêle;

GRANDINOUS, IMMOVEABLE STIAN.

This is a hard fcirrhous IMMOVEABLE Stian in the interior part of the Eye-lid, containing a pellucid body.

3. Hordeolum Chalazium.

GRANDINOUS MOVEABLE STIAN.

A MOVEABLE scirrhous Tumor on the margin of the Eye-lid. See Heister's Surgery, chap. 43. L.

4. Hordeolum-Siro.---Ciron de paupières.
Inflammatorily disposed scirrhous Stian,
or Tubercle.

5. Hordeolum Steatomatosum. SENNERTI;
Orgueil;---

SEBA-

SEBACEOUS, OF MELLEOUS STIAN.

A small Tubercle, or encysted Tumor, called Lupia, on the margin of the Eye-lids, full of mucus, like sat, or honey.

6. Hordeolum verrucosum. Verruë des paupiéres. L.

#### WARTY STIAN.

7. Hordeolum bydatidosum. Aquula Sen-NERTI;

HYDATIDOUS, or WATERY STIAN.

The Cure may be seen diffusely treated of by Heister.

The inflammatorily disposed scirrhous Stian should be dissolved with mucilage Plaister, or Diachylon, or suppurated; the sebaceous, or melleous opened with a Lancet, and its contents evacuated. The rest are either to be amputated, opened, or eat away with Lapis Infernalis.

Heister says, "That almost all the Tuber"cles on the Eye-Lids are of the encysted kind,
"fome having a small depending basis, and
"others a broad one," the former of which may
generally be taken off by ligature. And also
"from the importance and obviousness of this
"Organ, adds he, we are obliged to undertake
B 3 "the

"the Cure, and removal of many of these Tu"bercles, which in other parts of the body
"might be very well neglected: yet we ought
not, even here, to call in the assistance of the
"Knife, when they are very small, and not
"troublesome to the sight; for they are often
"tolerable without danger, though they may,
"perhaps, give a little deformity.—'Tis remarkable that these Tubercles seldom give way to
"topical Remedies, nor should we be over forward with the use of emollient Cataplasms,
"which are recommended by some, because the
"Eye itself may be injured by them, and there"fore extirpation is to be preferred."

Some authors confider it as a species of Wen; Dr. Cullen as a variety of the Phlogosis Phlegmone, or Inflammatory Tumor.

Notwithstanding great caution is very necessary in all our applications, where so delicate an Organ as the Eye may be in danger of experiencing the smallest bad effect, yet I have seen very happy consequences accrue from the use of strong mercurial ointment in some cases of Scirrhosity, by which the Tumors have been discussed.

Mr. Bell varies his mode of treatment according to the different nature of the complaint. If the Tumor should be of the inflammatory kind, or like small Boils, he advises Suppuration and Aperture.—If of the sarcomatous or warty, which

which differ but in degree of firmness, Extirpation with the Sealpel; and indeed, should it have a small pendulous basis, he prefers this mode to Ligature; if of the steatomatous, or encysted kind, making an incision through the skin, and dissecting out the Cyst; if containing a sluid too thin to admit of this operation, he recommends opening the Cyst, rather than attempting to preferve the Cyst entire. See his Surgery, page 264, &c.

§. 3.

BLEPHAROPTOSIS---MAUCHARTII;
Blepharoptofis, Lagophthalmus, Ectropium,
Entropium of the Greeks; Palpebræ fuperioris Casus, Retractio, palpebrarum Introversio, Extroversio, of the Latins; Chûte,
Rélaxation de la Paupière superioure, eraillement des Pauperières; Trichiaise avec Interversion des Tarses; vide Platner. Institut. Chirurgic. §. 577, 584. MaitreJan, par. 3. chap. 18, 19, 20, 21. St. Yves,
par. 1. chap. 8, 9, 10. Dionis, Dem. 6.
Boerhaave de Morbis Oculi, par. 1. chap.
5. Heister Chirurg. T. 1. par. 2. sect. 2.
cap. 45, 46, 48. Gorter, Chirurg. repurg.
lib. 5, cap. 10.

BLEPHAROPTOSY, OF PRETERNATURAL DESCENT of the EYE-LIDS.

A Diflocation or displacing of either, or both Eye-lids, elongated, retracted, turning inwards or outwards, with different Symptoms in different Species.

8. Blepharoptosis genuina.---Blepharoptosis of the Greeks; Casus Lapsus palpebræ superioris, Platneri, Boerhaave; Ptosis. Heister; Chûte, Relaxation de la Paupière, Maitre-Jan, St. Yves, Dionis.

A TRUE BLEPHAROPTOSY, OF PRÆTER-NATURAL DESCENT OF the EYE-LID.

This Species arises, First, from a wound of the frontal Muscles of the Temple, or the superior Levator of the Eye-lid; secondly, from any large Tumor dragging down the Eye-lid; thirdly from inflammatory, or cold Defluxions elongating the palpebra; sourthly, from mere relaxations of the Eye-lids, brought on by superfluous serum; fifthly, from a palsy of the palpebræ, which is sometimes constant, sometimes periodical.

CANTWEL, in the Philosophical Transactions, relates an account of a paralytic des-

with a mucous Epiphora, which the Aquæ Bellulicanæ cured by being poured on the nape of the neck. In this species the Eyelid cannot be raised by the action of the Muscle, which should elevate it, and hence the Eye cannot be by any means uncovered, at least not sufficiently; and therefore, for the most part, there is no vision, without the palpebra is continually listed up by the hand. The varieties of this Species are obvious;—• With respect to the fifth, it must be remarked, that the Cheek of the same side, the lower Jaw, the Tongue, Eyes, and other Parts, are affected.

The second and third Varieties are cured by conquering the primary disease to which they owe their origin; to the sourth, corroborating, spirituous Fomentations are useful; the fifth must be attacked by antiparalytic remedies, administered internally and externally; which, if in two Varieties, do not properly succeed, a cure must be sought for from a surgical operation performed on the prolapsed palpebra, or on the skin of the forehead, which also treat as in curing the

first Variety. See PLATNER. DIONIS. & HEISTER.

Befides the external applications advised in the fourth Variety, internal Remedies are confiderably ferviceable, fuch as will draw off the superabundant ferous fluids, which are chiefly purgative and diuretic medicines, particularly Jalap. and the Sal Diureticus. Amongst the Remedies for any paralytic affection, Electricity should be had recourse to, as occasioning the nervous system to exert its power, and by that means recover the action of the muscular fibres of the Eye-lid, As for that Variety which is faid to proceed from Relaxation, the use of alum with an infusion of oak bark, is recommended for an external application, which not fucceeding, the relaxed skin should be cut away, and the edges of the wounds confined together by futures, and healed in that fituation.

<sup>9.</sup> Blepharoptosis Lagophthalmus. Oeil de Liévre, Lagophthalmie.

RETRACTED BLEPHAROPTOSY, or HAIR EYE.

This happens in the superior Eye-lid; First, from a mal-conformation; secondly, from

from exficcation occasioned by too astringent Ophthalmics; thirdly, from a spasm, or too powerful tone of the muscle opening the Eye; fourthly, but what more frequently gives rife to it, is a cicatrix following Wounds, Ulcers, Burns, affecting the Eyelids, or even the Forehead. This may be known by the retraction of the superior Eye-lid, which is of that nature, that it descends only a little, and does not cover the Eye in fleep. There is not any extroversion of the Eye-lid; at first, the Cornea grows dry, then loses its transparency; this kind of disease is also observed in the inferior palpebra, nor does it acknowledge any other cause.

In the Varieties of this species, which owe their origin to spasm, or paralysis, the remedies indicated in those diseases should be tried. If the retraction should be considerable it cannot be cured. In those affections of the slightest fort, nourishing, emollient, and relaxing applications; drawing the Eyelid in a contrary direction, and constantly repeating it; plaisters, or pledgets are requisite: but if these should produce no advantage, many.

many are willing to have recourse to surgical operations, contrary to the opinions of Gor-TER and MAITRE-JAN. See the mode of performing the operation in the Authors cited above, Heister, &c. and also Bell.

Though this difease is considered by some as a species of the Ectropium, affecting only the upper Eye-lid, to which PAULUS ÆGINETA fays it is peculiar, as is the Entropium to the lower one; that account feems to be erroneous, as no extroversion but only a retraction takes place. In recent cases, relaxants should certainly be first tried, amongst the most powerful of which the vapour of warm water may be enumerated, conveyed to the affected part; which failing, we are directed to make an incision, if the cause should be a Cicatrix, its whole length; and thro' the adipose membrane which joins the skin to the muscles; if the cohesion has a broad surface, two or three incisions, parallel to each other, will be necessary, the different wounds kept extended by bandages, or, in preference, flips of adhefive plaister, over the dreffings, till the bottom of the wounds are filled up, that the skin of the Eye-lid may be elongated, and the retraction cured by that means. Should the skin of the palpebra be only contracted, the incisions are to be made like

like a crescent, at equal distances, the points of the crescent in the upper Eye-lid downwards, in the under one upwards, and afterwards we must proceed as before directed.

10. Blepharoptosis Estropium. Eraillement.

An Extroversion of the Eye-Lids.

This species may be observed in either of the Eye-lids, but most frequently in the inferior. First, it originates from a relaxation of the internal Membrane, by too long use of emollients; fecondly, from a protuberance arifing within the palpebræ; thirdly, in Labor, if perchance the Eyes of the Infant should be too much irritated by the fingers of the Accoucheur; fourthly, from the operation of the Fistula Lachrymalis, if the cartilaginous margin of the Eye-lid should be divided in the great angle of the Eye; fifthly, from a marginal Dialysis, or solution of continuity, when, by wounds or ulcers, the edge of the palpebra is divided, the corners of the fiffure reflected or pulled back; fixthly, from a cicatrix following wounds, ulcers, or burns. The Symptoms of this *species* 

fpecies are a shortness as well as extroversion of the palpebræ, so that the red interior part, forming a disagreeable appearance, becomes too prominent, nor can the Eye be sufficiently covered.

The first Variety is cured by the use of corroborating astringents and exsiccants continued a long time; the second is remedied by Le Dran's operation. Mem. de l'Academ. R. de Chir. tom. 1. The other Varieties are incurable, some advise a surgical operation, which Maitre-jan does not approve See the Differtations of Mauchartius and Keckius de Ectropio.

This complaint may be owing to other causes than what are here enumerated. Mr. Bell attributes it to an enlargement of any part of the Ball of the Eye, and tumors seated within the orbit; to dropsical effusions between the external skin and the inner membrane of the Eye-lid; violent inflammatory affections of it also; relaxation brought on by previous dropsical swelling; by a preceding inflamed state of the part, or as a consequence merely of old age; as well as by a cicatrix of a wound or abscess:

We must advert particularly to the nature of the cause which produces this complaint, and as

in many cases it is only symptomatic, the cure of the original difease removes the palpebraic extroversion. Should it be owing to a mere local watery effusion, puncture, or scarification on the internal membrane of the Eye-lid will be proper, which may not be necessary in general anasarcous affections. If to inflammatory affections they should be attended to, and speedily cured; but in those cases sometimes sungous slesh is produced: After allaying the Inflammation, the fungus should be gradually confumed by the gentlest escharotics. In old age palliative remedies may relieve the relaxation, fometimes form a complete cure, fuch as spirituous and strengthening applications, cold water alone, or mixed with brandy; white vitriol, or faccharum Saturni, in form of Collyriums; but recourse should not be had to chirurgical operations. What we have faid before, with regard to the cure of palpebraic retraction, from cicatrices, or contraction of the Eye-lid, will, in this case of extroversion from this cause, be applicable. We should have obferved, that, in order to bring the Eye-lids together, at night, and continue them in that position, proper compresses, dipped in egg-water, and applied, are serviceable.

is, mould externally (well, and indu-

Re Vitell. ovi recentis No. j. agitetur ad tenuitatem Aquæ, dein cochleatim addantur Aquæ Fontanæ 3iij. & iterum ad perfectam commixtionem agitentur.

11. Blepharoptofis Entropium. Trichiaise avec Inversion des Tarses. L. Introversion of the Eye-Lip.

In this species which comes under the names Trichiasis Distachiasis (§. 1.) Phalangosis, Ptosis (§. 3. Sp: 1.) the cartilaginous margin of the Eye-lid is turned against the globe of the Eye with the Eyelashes, the symptoms arising from the Trichiasis Ophthalmia (§. 1.) coming on; first, an Emphysema, Oedema, &c, occupying the outward part of the Eye, make the converfion; fecondly, it is owing also to a contraction of the internal membrane of the palpebræ, according to Dionis, as also according to MAITRE-JAN; from a stricture which the humor creates bringing on a dry, or hard lippitude; for instance, if the humor, pouring down upon the edge of the Eye-lids, should externally swell, and indurate them.

In the first Variety the method of cure to be observed is that which is necessary for œdematous and emphysematous complaints: which, should there be any occasion, may be fucceeded by those remedies indicated in an Ophthalmy. MAITRE-JAN rejects the operation recommended in that case by the antients, and even by the moderns. In the other Varieties Dionis proposes the longitudinal incision; but this author sometimes advises emollients, plucking out the Eye-lashes, and ophthalmic remedies; tho' they do not, by any means, approve of extroflexion or agglutination of the pricking Eye-lashes, nor burning by actual cautery, nor those remedies, by which they allow the Eye-lashes may be hindered at last from growing up; but here is an opportunity in this species for the dry future recommended by DIONIS; by which, if the Eye-lashes should not be returned, LE FAYE fays recourse must be had to the operation of the antients, performed in a gentle mode; viz. in that manner for which he celebrates himself in the true Blepharoptofy. See the Authors above quoted.

Mr.

Mr James Ware in his Account of the Trichiasis which properly belongs to this Species of Blepharoptofy, makes a Distinction between the Inversion of the upper, and lower Lid; the former being affected by the equal, tho' contrary Action of the orbicular Muscle, and Levator of the fuperior Eye-lid; whereas the lower palpebra has no Muscle correspondent to the Levator of the upper. When therefore the Trichiasis, as he terms it, affects the upper Lid, it appears to be produced by a relaxation of the levator, and a contraction of the upper part of the orbicularis: whereas a Trichiafis of the lower Lid can only arise from a Relaxation of the skin, and a contraction of the lower part of the orbicularis .- As these two cases differ in their causes, the method employed in each must of course be different :- In both, the Cure may either be palliative or radical: the former may be effected by extracting the Eye-lashes by the roots; the latter by retracting the ciliary edges, preserving them in this natural situation. In the Trichiasis of the lower Lid, we must encrease the renitency of the skin to such a degree as to prevent the contraction of the orbicularis : but in the Trichiasis of the upper Lid, this would have no effect, and benefit can only be derived from adding a fufficient stimulus to the levator of the superior Eye-lid to excite its proper action.

The Trichiasis of the lower Lid is most frequent.

A curious case of the Trichiasis of the upper Lid is related, in which, after a variety of methods had failed, a cure was effected by the following operation. - An incision was made through the Integuments of the upper Lid from the inner to the outward angle of the Eye; the fibres of the orbicularis were then seperated, so as to denudate those of the levator Muscle, as near to their termination in the end of the Lid as possible; which being done a small cauterizing iron, adapted to the convexity of the globe of the Eye, and made pretty warm, was passed two or three times over the tendino-carneous fibres .- This flight irritation produced a falutary contraction of the Muscle, fo that after the subsiding of the Inflammation the Eye became useful.

In a recent and slight case of the Trichiasis of the lower Lid, a cure has sometimes been accomplished by forming a fold in the skin below the edge of the Lid, and preserving it in that state by means of sticking plaister, or of an instrument contrived to pinch up a small portion of the skin, and hang it on the cheek. In more stubborn cases it is necessary to cut off a small transverse portion of the skin below the edge of the Lid, and afterwards consine the edges of the wound

greater difficulty, viz. where the ciliary edges are not only inverted but contracted, or shortened, relief can only be given by enlarging their circumference, either by an incision at the outward angle, or by a complete division of the cartilaginous edge in the middle. The latter operation is often necessary. See London Medical

Journal, vol. 1. p. 120.

Should this disease proceed from an unequal spasmodic exertion of the orbicular muscle of the Eye-lid, BELL advises a slight incision to be made on the external furface of the under palpebra, of fuch a depth as to divide those fibres of the muscles, whose preternatural contraction appears to be the cause. If from a tumor or cicatrix, the tumor should be extirpated. The cicatrix may be taken away merely by making an incifion with the scalpel, so as to furround the whole of it, and afterwards it may be diffected off in a flow cautious manner, and healed in a mode fuch as the case requires, either simply or by suture.-If from relaxation of the external skin, fituated upon or beneath the Eye-lid, an occurrence, which Mr. Bell fays he never met with, the mode of treatment recommended §. 3. Sp. 1. must be had recourse to. See Bell's Surgery, vol. 3.

# §. 4.

12. Ophthalmia tuberculosa.

PALPEBRAIC TUBERCULOUS OPHTHAL-

The Posthia of Galen. A poste; --- præputium, prepuce, or postos, desiderium, Desire. Tubercles growing to the Eye-lids are Hordeolum, by the French called Orgeolet, envie, because it is believed, that it happens to those who resuse any thing desired, or rather longed for by a gravid woman; Grando: with the Greeks, Crithe; with the French, Grain de Grêle, on account of the hardness and transparency of the tubercles, whence the sclerophthalmia of Aræteus, also by others Chalaza the Præputiolum of Cornarius.

Hard, red, indolent, flightly painful tumors arise in the margin of the palpebræ, which resemble, as it were, the prepuce in a Phimosy.

These tubercles are to be softened, that they may be resolved; but should our endeavours not succeed, they should be inflamed, or burnt that they may suppurate, or they should be extracted, and at last a cicatrix formed; if they should be warts, or atheromata, the excrescences should be tied round their bases with thread, that they may fall off, or be cauterized, or cut out.

They should be softened with mucilage plaister, the Emplastrum de Vigo, with a little soap, &c.--they may be burnt with a drop of Spirit of Sal Ammoniac, or, which acts more quickly, with Lapis Infernalis.--They are taken out with scissars; if the warts, or excrescences, have a stem, they are to be tied with silk, the small ulcer is to be cured by the Unguentum Diapomphologos. See Beorhaave on the Stian, and Heister's Surgery.

Cullen confiders this as an idiophathic disease, and ranges it under Ophthalmy in his second division, amongst those affecting the margin of the Eye-lid.—An inflammation of the tars may be produced by an inflammation of the membranes, and then the same remedies are requisite;—but he says, it may often depend on an acrimony deposited in the sebaceous glands of the part, so as to require various internal remedies according to the variety of the acrimony in fault, as that of scrophula, syphilis, or other diseases with which this

this ophthalmy may be connected, which should be particularly attended to; and where these shall not be evident, certain Remedies, more generally adapted to the evacuation of acrimony, fuch as mercury, may be employed.

It almost constantly happens, that some ulcerations are formed here; these require the application of Copper or Mercury, which may alone cure, fometimes, the whole affection; and they may be useful, even when the disease depends upon a fault of the whole system.

The gluing together of the Eye-lids in sleep, which happens in this, as well as other Ophthalmies, should be prevented by infinuating a little of any mild unctuous medicine between the Eye-lids, before the patient goes to fleep.

Care should be taken, if any of the Eye-lashes are eradicated, that, after a cicatrix is formed, a Trichiafy may not be brought on by the renewal of the ciliæ; if the hair should appear to turn inwards, they must be managed at a proper time as above directed, §. 1. The general Remedies for inflammation of the Eyes, which attend the different Species will be spoken of at large, when we come to treat of Ophthalmy.

13. Ophthalmia trachoma.---P. Æginetæ.
TETTERY, CALLOUS, OF SCABROUS OPHTHALMY.

This is a roughness of the internal part of the Eye-lid. It is called Dasymma, if tettery; Tylosis, if callous; Sycosis, if the pustules should be thicker, or scabrous.

It differs from the Pforophthalmy, on account of the hard, miliary, or small pushules within the Eye-lids, but not affecting the Globe of the Eye.

It was epidemic after the Earthquake and Fast, or Lent, at Rome.

It is discovered by a sense of weight in the Eye-lids; acute pains come on, continual itching, heat and redness in the angles of the Eye, and Tunica conjunctiva----the margins of the Eye-lids appear ulcerated, from which a glutinous lippitude arises with excoriating tears; in the night the Eye-lids are glued together. If the complaint should be of long standing, the inferior Eye-lid is chiefly inverted \*, and the cartilage called

<sup>\*</sup> In old people under fimilar circumstances, the lower Eye-lid grows thick, and turns downward, fo that the cartilage resembles raw sless.

Tarfus

Tarfus is prominent, like a bow that is bent; the Tarfiare excoriated, and the difease is called by Boerhaave Inflammatio excoriatoria palpebrarum;—hence an ulceration of them is the consequence, and also small miliary pustules like small sand, affecting the interior surface of the Eye-lids. This affection is obstinate, and very trouble-some; the patients complain of small sand pricking the Eye; by constantly winking they renew the excoriation.

The cure of this disease, when recent, is different from that of long standing.

In recent cases the inflammation is chiefly to be abated by internal Remedies, by bleeding, cathartics, diuretic ptisans, warm bathing, and also by topical applications.

R Bulbi Lilliorum 3is. Flor. Melliloti

feu

Sambuci 3j.

Croci Dj. coque & adde

Farinæ filigeneæ, q. s.

Sal Ammon. gr. vj. M.

With this Cataplasm, rolled up in fine rag, let the Eye be somented twice a day, until the the palpebræ, before tense, become lax and corrugated. --- Should it be continued longer a sebaceous Epiphora will succeed, unless astringents, such as roses, pomegranate, the leaves of agrimony, boiled with a little honey of roses, be used.

In those of long standing, with the following the Eye-lids may be anointed:

R Sacch. Saturn. 3j.
Ceruffæ albæ Div.
Camphoræ, gr. vi.

Cum Olei Rosar. pauxillo, tere dein adde Ung. tutiæ, vel

Rofacei 3j. M.

inunge mane & vesperi palpebras clausas; si non tolerari possit, ex butyro recente, oleo ceræ, vel cera alba siat unguentum, solum leniens.

In ulcerated and scabious palpebræ St. Yves administers the following collyrium;

R Hepat. Antim. 3ij.
Tutiæ pp. 3ss.
Camphoræ, 3ss.

Caryophillor. gr. xx. infundantur per

Octiduum in Aq. Euphrasiæ

Feniculi. Chelidonii maj. Rutæ aa živ. M. ter de die instillatur aqua illa in Oculum; vesperi unguentum tutiæ applicetur.----If this should not succeed, the small ulcers of the margin of the palpebræ should be cauterised with Lapis Infernalis, with great care \*. If these should be only Herpes in the palpebræ, not any evident ulcer, the following, used four times a day, will suffice:

R Sal Saturni
Ammon. aa gr. iv.
Aq. Rofar.
Plantaginis, aa živ. M.

The Pforophthalmy, or Inflammation and Ulceration of the Eye-lids, appears to be only a Variety of this, which Dr. Cullen arranges with the former Species, and which WARE fays, though often the effect of scrophula and other diseases, as scurvy and lues Venerea, is most frequently a local complaint, occasioned by an ulceration of the ducts of the ciliary glands, which ulcers mix-

<sup>\*</sup> In order to mitigate the feverity of the pain occasioned by this method, the part should, immediately after the application, be washed with warm water.

ing their discharge with the mild fluid those glands usually secern, converts it into an acrid humor, which readily inspissates into a hard adhefive fcab, and consequently can only be remedied by fueh means as cure the ulcers which occasion them, -and that is performed by topical applications. The most effectual he thinks the Unguentum Citrinum, made by dissolving one ounce of quickfilver in two of spirits of nitre, the folution poured into a pound of lard melted, and just beginning to grow stiff, and the whole briskly stirred, till an uniform yellow mixture is procured. A little of this, melted into an oil by a gentle heat, is to be rubbed upon the Eye at bed time. - After which a foft plaister of ceratum album is to be bound closely over the Eyelids, to prevent their adhesion to each other in the night, -and in the morning, the Eye is to be cleanfed with milk and fresh butter well mixed together and warmed .- In the flighter degrees of ciliary ulceration, Mr. Bell recommends, as well as the unguentum citrinum, a mercurial ointment of one part quickfilver to four of lard, to be applied, by means of an hair pencil, every night and morning to the parts affected, and once or twice in the day to wash the Eye with a weak faturnine or vitriolic folution; -to avoid

the light by covering both Eyes, though one should only be affected, with a loose bandage.— In order to prevent its return, as also that of the inflammation, he finds it useful to keep the head shaved, and use local, as well as general, cold bathing to the whole Head and Eyes, and to administer the Peruvian Bark freely, avoiding at the same time every thing which can excite the complaint. See his Surgery, vol. 3.

But as this disease confines itself not always to the margin of the Eye-lids, and sometimes extends itself over the whole surface of the palpebra, and on the cheek, assuming the appearance of an Erysipelas, antiphlogistics and sedatives are the previous applications requisite to subdue the extreme irritability, and then afterwards the unguentum citrinum may be had recourse to, to complete the cure.—Besides, should the disorder owe its origin to any cause existing generally in the habit, that must be particularly attended to, and militated against by such remedies as are adapted to its nature.

P. ÆGINETÆ; Ophthalmia Angulos Oculi afficiens; St. Yves ab Acrimoniâ

Sanguinis. Sp. 5. De Meyserey, No. 386.

DRY, TARSAL OPHTHALMY.

In this Xerophthalmy, there is no tumor in the Eye-lids, a redness and itching only on the margins, scarce any effusion of Tears, the palpebræ agglutinated in the night; the Eye can scarce bear light reflected from water; it is more easily cured than the inflammation attended with moisture; ----though it is obstinate and habitual, as it is supported by the acrimony of the Lymph; for a slight dysury coming on gives relief, as it were, by a Criss, a metastasis or translation occurring from the Tunica Conjunctiva to the Præpuce.

Bleeding is often all that is necessary; but generally a cathartic being administered before, warm baths, repeated for a few days, are crowned with success; acid waters also drank in the summer season for nine days--cooling gruel, or milk whey, should be taken going out of the bath;----at night anodynes are of service, particularly to children, according to Sydenham.

The topical applications indicated are collyriums of rose and plantain water; mucilage of slea-wort, water of frog's spawn; the leaves of the quince tree, rose leaves; the water, or solution of Saturn, or Sal Saturni, plentifully diluted with water; sugar-candy, &c.--But St. Yves prescribes the solution of Saturnian Eye-water:

R Aq. Rosar.

Plantagin. aa Zij.

Lap. Tutiæ pp. gr. xij.

Sp. Vin. R. 36. M. foveatur per Diem Oculus hôc Collyrio.

In the evening he applies a small pledget dipped in a decoction made of the leaves of male speedwell, thyme, and roses, in red wine; small slices of pears, or apples are excellent sedatives.

Dr. Cullen ranks this with the two former Species, some consider it only as a Variety of the Sclerophthalmia.

15. Ophthalmia Scrophulosa.---- Diction: de Med.

SCROPHULOUS OPHTHALMY.

This is common to scrophulous children, and is humid, with the margin of the Eye-lids swelled, covered chiefly with a viscous lippitude, the tunica conjunctiva red, rather swelled, and the tears acrid,—-the afflicted hang their heads down, and have their nose, lips, and neck, rather full and swelled, and often the Cornea is rendered opaque by a a Leucoma.

Lymph, viscid and acrid, which ought to be attenuated, and depurated: repeated cathartics are here estimable, a calomel pill of twelve grains preceding: then opening ptisans which receive into their composition a few steel filings, china root cut thin, and millepedes, a small handful of wild marygold, or half a handful of goose-grass being added. The following ptisan has its uses:

R Rad. Chinæ.

Lapathi aa 3j.

Coq. in Aq. Font. lb. x. ad lb. v. sub finem coctionis addant. Summ. cupressi, pugillos tres Rad. Glycyrrh. 3ij. st. utatur pro

potu ordinario.

Twenty or thirty grains of æthiops mineral should be given in a bolus for three days, on the fourth a cathartic. These must again be applied to feven days afterwards; if the weather will permit, baths in this Species happily fucceed---and also, which is more effectual than the rest, a seton should be set in the neck, and fuffered to continue, particularly during the temperate months. Sir Hans Sloan's Remedy quadrates aptly with this disease---a collyrium of viper's fat and tutty, at the same time a large blister applied to the nape of the neck. The use of milk is not to be neglected, whilst, in the mean time, collyriums mixed with refolvents drawn from thyme, vervain, and eye-bright, are to be employed, which were not in the beginning fafe for fear of increasing the inflammation.

Dr Cullen arranges this under Ophthalmy, amongst the symptomatic Species which depend on diseases of other parts, or of the constitution in general.—It is productive of many other complaints of the Eye, affecting different parts of that Organ; when instamed from that cause, the Eye itself appears of a dull red, or leaden color, there are often white specks on, or near the pupil, small running ulcers are often seated in the great angle, which discharge acrid serum, that scalds the cheek, or a whitish thick matter, that agglutinates the Eye-lids in the morning.

Tho' SAUVAGES here recommends repeated cathartics and large doses of calomel preceding, no good will accrue from them, nor indeed any other mode which contributes to induce debility in the fystem-gentle aperients may, now and then, be proper; but whatever will give ffrength to the constitution, assist the digestive powers, and remove the obstructions in the glands, can only be depended on .- Bark and calomel joined with aperients have been attended with fuccess-Med. Obs. V. 1. P. 305 .- and also the use of hemlock.—Mercurials joined with Sal Soda and Bark hath been fingularly ferviceable in many cases; Sea Water also, and Sea Bathing, in particular states of this disease; -and colt's foot hath been given with great advantage-all of which will be fpoken spoken of more diffusely when the scrophula is particularly treated of;—I shall now only add with regard to the complaint of the Eye the present subject, I have seen the inflammation give way to the Tinctura Thebaica, dropt into it two or three times a day, which arose from ulcers of the Cornea, and somentations of poppy heads, which ulcers afterwards yielded to the Aqua Sapphirina, tho' the constitutional malady remained unsubdued.

16. Ophthalmia cancrosa.---Cancer des Yeux. Cancer palpebrarum. St. Yves.

CANCEROUS OPHTHALMY.

This Species is often distinguished by an exulcerated tumor on the Eye-lids, hard, and lancinating; it is by St. Yves divided into five Varieties, nor did he ever see any other Cancer in the Eyes.

In the first Variety, (or palpebraic Cancer) a hard tumor arises on the superior Eye-lid, with the blood vessels turgid at the basis, and of a lead color, attended with lancinating pains at intervals.

In the second, (or wart-angular Cancer) a porrum, a species of Wart, adheres to the nasal angle of the Eye, below the conjunc-

rum are deep, and it is covered with blood vessels, divided into granulated sasciculi, from which, upon the slightest touch, blood issues; this tumor itches to that degree, that the patient can scarce refrain from scratching, from whence quickly originates a carcinomatous ulcer.———This Variety is cured by a fluid kept secret by St. YVES, and reserved to his own use only.

In the third (or varicous Cancer) the blood vessels are varicose, and of a lead color, without any antecedent porrum, or tumor; but in the three Varieties, in process of time, an ulceration happens, with fungous slesh, which going off spontaneously, leaves an ulcer extending itself wider and wider, in various parts of the face.

In the fourth, (or caruncular Cancer) the disease begins with an Epiphora, or slux, acrid tears, ulcerating the caruncula lachrymalis, and thence eating its way in the superior palpebra, whose edges become afterwards callous; a lachrymal fissure sometimes precedes this disease.

A blow given to the Eye often occasions a fifth, (glob-ocular Cancer) by which the vessels are bruised, and the blood rather vitiated, is altered by an acrimony peculiar to Cancers, and thus a carcimatous and callous ulcer becomes the consequence.

All the Varieties, except the second, are incurable; but in order to palliate the disease, milk diet, cooling ptisans, baths, acidulated waters, are required: amongst the topical applications frog-spawn water is recommended, the water also of garden night-shade, with some grains of salt of Saturn, or burnt lead.

Cullen arranges this with the symptomatic Species of Ophthalmy depending on the diseases of the Eye itself.—This should be treated in the same manner as cancerous tumors of the other parts, where every remedy seems only to be palliative, except extirpation, which last in some of the cancerous affections of the Eye, owe their fatal consequence to mal-treatment in their beginning under the hands of nurses, impudent Quacks, and ignorant pretenders to the surgical art.—In

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all cases, where so delicately formed an Organ is the object of consideration, safety can only depend upon the most experienced; but they are applied to too often, when all hopes of a radical cure are totally lost—See Cancer.

# 17. Ophthalmia a Lagophthalmo. HARE-EYED OPHTHALMY.

This is a supernatural exposure of the Globe of the Eye, either above or below, from a retraction, or shortness, of one or other of the Eye-lids, in French, Oeil de Liévre.---It is a disease mostly of the superior palpebræ, and proceeds from different causes, as from birth, from a stricture of the Cutis.

The cure requires that the elongation of the palpebra should be procured by every assistance; after softening it, by reiterated anointing with oil, butter, unguentum exalthæa; in the night the superior Eye-lid should be drawn downwards by an adhesive plaister; the inferior pressed upwards by pledgets, and ligatures properly adapted.

If these avail not, though persevered in for a long time, the operation with the knife must be instituted; agreeable to the direction of the Rugæ let the cuticle be divided by two or three parallel incisions, and then the management of the palpebra extended must be attended to. See Blepharoptosis lagophthalmus.

Cullen arranges it with the former.

\*\*\* 18. Ophthalmia mucosa puriformis.

Muco-puriform Ophthalmy.

This Species, not mentioned by Sauvages, nor taken any notice of by Dr. Cul-Len, is termed by Mr. Ware, purulenta; though, at the same time, he confesses the appellation improper, as the discharge is not pus, but colored mucus; Dr. Motherbey, in his Dictionary lately published, stiles it Ophthalmia mucosa; this still seems not to be fully expressive, I have therefore added the epithet puri-formis, which will take in the whole idea more perfectly.

This difease rarely happens except to new D 4 born

born infants. It first discovers itself by a redness in the Eye-lids, which quickly swell to a fize so large as to prevent their being feparated without the utmost difficulty .---After which a constant discharge of thick yellow matter foon fucceeds; which, if the Lids can be separated, will appear to be fpread over the Eye, so as entirely to cover In common, both Eyes are affected it. in nearly the fame manner; and in bad cases, whenever the child cries, the inside of the Lid is turned outward; which is also the case, whenever an attempt is made to feparate them with the fingers; this is fometimes the constant state of the Lids; and though they are restored to their proper situation, by the fingers, yet, on being left to themselves, they immediately return to their former averted state.

This complaint is now and then accompanied with eruptions on the head, and other parts of the body, and fometimes with fymptoms of a scrophulous habit.

The matter, if suffered to continue between the Eye-lids and the ball of the Eye, increases the inflammation, and frequently causes

causes specks and ulcers, which very often partially, fometimes totally, cover the Pupil; --- these effects may, in a great measure, be produced by the acrimony of the matter; but suppose it bland and mild, its continual lodgment on the Eye, by maceration only, is fufficient to destroy the transparency of the Cornea; and when it has been joined, with the pressure of the swollen Eye-lids, it has been known to cause the Cornea to burst, the humors to be partially, or wholly discharged, and the Eye, of course, to fink in the Orbit. It is faid by fome, that, if left to nature, the quantity of the mucus gradually increases, till a tea-spoonful may be squeezed from each Eye every day, soon after this, if no extraordinary fymptoms attend, the mucus decreases, and, without any art, the cure is effected.

With early affistance success is generally certain; but if neglected, a partial blindness, at least; too often a total one is the consequence. Like all inflammations of the Eye it is apt to terminate in an opacity of the Cornea,

The cure is to be attempted, by washing out the mucus with collyria of common Emulsion, and camphorated Julep---warm barley water, &c. till the swelling of the Eye-lids subside; then the applications of cooling Ointments, emolient Cataplasms, gentle purgatives, local bleeding with leeches on the temples, and blisters between the shoulders kept open a proper time---When the turgidness of the Eye-lids, and inflammation of the tunica conjunctiva disappear, then the Cortex Peruvianus is administered internally, and astringent collyria used three or four times a day.

In every stage of the disease the indication is to astringe the relaxed vessels, and check the increased discharge. Ware prefers the aqua camphorata Batanea for this purpose, 3j. to 3jj. of water, or diluted according to the circumstance of the case. This composition is to be thrown between the Eyelids, by means of a syringe, in slight cases, once or twice a day, in more inveterate ones, once or twice in an hour, and the stypticity of the collyrium increased in proportion.—
To abate the swelling of the Eye-lids, a cataplasm

taplasm of equal parts of Coagulum Aluminofum and Ung. Flor. Samb. applied cold, but without omitting the use of the injection .--- If the infide of the Eye-lids is much inflamed, Tinctura Thebaica may be dropt on them, with advantage, every day .----When the Eye-lids adhere strongly, they will be best separated by washing their edges with fresh butter dissolved in warm milk. If there is an Extroversion of the Eye-lids, only when the Child cries, nothing need further be done, than what has been already recommended; but if this fymptom is constant, it will require a more frequent repetition of the Injection, also returning the Lids, and keeping a compress dipped in Aq. Camph. diluted, constantly applied upon them, and there confined, that the propenfity may be removed, and the Eye-lids recover their proper tone. If there should be reason to suspect any particular humor in the habit, fuch medicines as their nature may require, should be had recourse to .---Whether we can discover the origin of the complaint to arise from any vitiated humors inherent in the system acting at so early a period,

period, and being folicited to this part from fome external cause, I will not take upon me to determine; but whatever I have feen, have deduced their origin from less latent fources; either from the parts being irritated by the too bufy fingers of the Accoucheur, particularly in Face Cases; from too early and too fudden exposure of the infant to the stroke of the cold air, immediately after birth, its Eyes being uncovered; or from the acrimony of that white viscid Sordes with which the fœtus in Utero has fometimes been covered, when the membranes have broken, and the waters paffed off fome confiderable time before delivery. These Causes being known, it is no difficult talk to prevent this mischief from succeeding; in all Face Cases, the Eyes should be washed constantly with brandy and water, every night and morning, before the commencement of the complaint, which would be also proper under the second circumstance; --- in the third, immediately after birth, the child should be extremely well cleared from all the superincumbent fordes, and to the brandy diluted a little Tinctura Thebaica Thebaica added, for a flight inflammation will be perceived on the Tarfi, commonly.

Though I have always purfued the intention hinted at in the cure of the Ophthalmia Mucofa, I have been fortunately fuccessful by less elaborate means; as I considered irritability to be the immediate cause of its beginning and continuance, to allay that was ever my first intention, which generally yielded to a collyrium of distilled water 3vi. Tinct. Tébaic. Ziij. after washing the Eyes previous to its application, with barley water fimply----this was used three or four times a day, when the symptoms considerably abated, I had recourse to the tincture alone, and afterwards some gentle astringent eye-water, I feldom made use of any faturnine preparations. In obstinate and violent cases, bleeding in the temples I have found fingularly useful, and gentle purgatives, joined with Sal. Polychresticus, or preceded by imall doses of Mercurials.

Blisters between the shoulders, seemed to be unnecessary, little use being derived from them; I have ever preferred the application of them behind the ears, but have feldom had occasion to have recourse to them.

The Bark I have rarely feen taken in fufficient quantity to warrant my attributing much fuccess to that medicine; though where children, so young, can be prevailed upon to perfift in its use, infinite service may be derived from it, I am perfuaded, in relaxed habits, or where the tone of the fyftem wants invigoration .--- One instance I shall beg leave to mention of a child about three years old, who had laboured under the Ophthalmia mucosa puriformis for some time, when I faw him, he had besides Ophthalmy, ulcers in his mouth, and on the alæ Nafi, which discharged a very fœtid offensive pus; his eyes, though perfectly free from all ulceration, were highly inflamed, the palpebra much fwelled, and afforded a very copious and constant puriform evacuation, his lips were much enlarged, his abdomen tumid, his habit costive, his body greatly emaciated, attended with no fmall degree of hectic fever, and often from the infide of his mouth there issued blood. To his Eyes I used the Tinctura Thebaica only, after being washed with

with barley water and milk, his mouth was gargled with a decoction of bark, in which Tinct of Myrrh and liquid Laudanum were dissolved, which application was serviceable to his nose; very small doses of Calomel were given twice a day, with a decoction of Bark, and now and then a dose of Sal Polychresticus and Rhubarb was interposed----besides, the decoction was taken twice in the day without the mercurial, and an anodyne in the evening----by these means he happily recovered; the glands of his neck, I should have observed, were only slightly enlarged.

## §. 5.

Med. 1. 782. ex Rudolpho Vehrens; Lemæ. Hippocratis; Lemia, Celso; Oculi Gramiofi, Lucilio; Gramia, Non-Nio; Lippitudo of Authors; La Chaffie——

SEBACEOUS EPIPHORA.

In the margin of the palpebræ, there are sebaceous Glands, which separate a little unctuous

unctuous matter in an healthful state; by which perhaps the efflux of tears is prevented; but sometimes the discharge of this sebaceous sluid is extremely copious. This Lippitude often accompanies the humid, or pituitous Ophthalmy of Horatius; it clouds the Sight, agglutinates, in the night, the Eye-lids, viz. from eight o'clock in the evening till the following day, but then the Eyes being forcibly opened, the serous Tears slow out.

This is cured by fprinkling upon the part in the evening the powder of Tutty, or washing it with the following collyrium, or some other ophthalmic detersives, or gentle astringents.

R Aq. Rofar. Zviij.

Vitr. virid. vel albi gr. xx. M.

20. Epiphora ab Estropio.——
Epiphora, from Palpebraic Extroversion.

This is a turning outwards, or extroverfion of either Eye-lid:--Entropium, -- an Introversion. The inferior Eye-lid is turned outward by luxuriant sless, which rises upon the ulcers of the interior membrane, in which case the excrescence may be destroyed by Lapis Infernalis, until the palpebra, by the elasticity of its marginal cartilage restores itself: or, it is turned outward by an external burn, from which the skin is corrugated; this, if of long standing, is irremediable; if recent, it is cured by emollients, as milk, butter, ointment of marshmallows, Galen's cerate, and proper compresses; or, it is turned outward from relaxation, according to Heister, as amongst old people; to cure this is beyond the reach of art. Exficcating remedies are proper, dry heat, spirituous applications administered either in form of fomentations or vapors; the clay, or mud, from warm baths.

The inferior Eye-lid is turned inward by the operation for the fistula lachrymalis, the tendon of the musculus orbitarius being cut asunder, which admits of no cure; or from a wound dividing the cartilaginous margin, hence it becomes double edged, internal and external. A Suture of the Conjunctiva remedies this, and the skin lays before the untouched Tarsus, if recent; if of long stand-

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ing there are no hopes from medical or chirurgical skill.

The inferior palpebra is turned outwardly by an Exophthalmy, or swelling of the
Globe of the Eye, as well watry as cancerous; the former is called Hydrophthalmia,
or Dropsy of the Eye, which affects both
Eyes, and is cured by diuretics, cathartics,
&c. the latter follows the nature, and requires the mode of management as in cancer.

See Sect. 1. §. 3. Sp. 10. Blepharoptosis ectropium.

### §. 6.

Caligo a Symblepharofi.—Prosphysis——MAUCHARTII.

CALIGO, from a Symble Pharosy, or GLOB-OCULAR PALPEBRAIC COALESCENCE.

Prosphysis is a cohering of the Eye-lid, chiefly of the superior, with the Globe of the Eye; it is hurtful to the Sight, or hath a disagreeable appearance, with respect to the latter, as far as this adhesion destroys the mobility

mobility of the Eye, when it cannot turn itfelf in various directions.

The Symblepharofy chiefly impedes the Sight of distant objects, to discover which the elevation of the superior Eye-lid is chiefly conducive, as experience teaches us, as on the contrary, the Eye-lids wink at objects to be seen very near, that they may seclude the greater light reslected from objects which are closer.

It is either congenital, as from our birth, or acquired, as in cases of Ophthalmy succeeding to a severe ulcer, on account of the Eye being closed a long time.

It is cured by a surgical operation as performed in the ancylo-blepharon, which see below.

22. Caligo ancylo-blepharon. Heisteri Chirurgia. L.

CALIGO, from an ANCYLO-BLEPHAROSY, or PALPEBRAIC COALESCENCE.

This is an adhesion of the superior with the inferior Eye-lid; whence the Eye-lids wink, and the Rays of Light are either totally, or partially, intercepted. This disease derives its origin from glutinous dis-

E 2 charges,

chiefly in ulcerated Eye-lids, and is cured by warm milk, and absorbent powders, commonly of tutty:—or the coalition is a perfect concretion of the palpebræ with each other, and often with the Eye, which is removed by the scalpel in skilful hands; and here the operator should be more sparing of the Eye-lid than the sclerotic membrane; the separation being completed, a very thin plate of lead should be interposed, in order to prevent a reunion from again taking place.

Sometimes there is a small aperture, which is generally in the great Angle of the Eye; if there should not be any, a perforation must be made in either Angle, a probe with a groove then introduced, and with a fine edged knife let the parts be separated.—This done see if the Eye-lids adhere to the Globe, if that should be the case, let them be carefully divided from each other observing the cautions above. If the adhesion is only to the conjunctiva, blindness is not the consequence, if on the Cornea the Sight is inevitably lost. The reunion is better prevented by injection, or lint placed between the Eye-lids, or the Eye-lid and Ball of the Eye, after dipping it in some

fome mild liniment, than by a plate of lead, be it ever so thin, as that might from its hardness bring on an inflammation.

Mr. Bell says, when the adhesion of the Eyelids is slight, and has not been of long duration, it may be separated by the end of a blunt probe insinuated behind it, so as to tear it as under; but when they adhere sirmly, or to the Eye-ball, he advises slow dissection of every adhering sibre, and then the Eye only to be covered with a piece of soft lint spread over with Goulard's cerate, or any other cooling emollient ointment; and after the first dressing, a small portion of the same ointment daily infinuated between the Eye-lids.

—See his Surgery. Vol. 3.

23. Caligo a Blepharoptofi.----St. Yves, Chap. 9.

CALIGO, from BLEPHAROPTOSY, or PRE-TERNATURAL DESCENT of the EYE-LID.

This is a falling down of the Eye-lid, so that it overshadows the Cornea, and is to be attributed to the resolution or inactivity to the levator muscle of the palpebra, and the E 3 dropping

dropping down is either permanent, or intermittent.

It was cured by bathing it with Aqua Belerucana, at Montpelier; see Philosophical
Transactions, No. 449. in the year 1735.
In the continued Species; exsiccating, and
resolvent Medicines are useless; we must
have recourse to excision of the skin. See
HEIST. Chirur. cap. 46.—Bartischius's
method appears more cruel.—The descent
of the superior Eye-lid arising from Atony,
has been cured by Electricity. J. G. BauMER Act. Acad. Montguntiæ, tom. 1. p.
186.

The intermittent Species continued every night for twelve hours, with lippitude, and the falling down of the Eye-lid depended upon pachea-blepharofy: which fee below.

See Sect. 1. §. 3. Sp. 8. and Note to True Blepharoptofy. 24. Caligo a Pacheablepharofi.—Pacheablephara, GERRÆI; Pachytes, ZELLERI; Ptilofis with the Greeks.

CALIGO, from a PACHEA-BLEPHAROSY, or PALPEBRAIC INCRASSATION.

This is an Incrassation of the Eye-lid from tubercles, warts, and stian-like, grandinous, or pultaceous Excrescences on the edges of the Eye-lid.

If the Excrescence, as is usual, should grow on the inner superficies of the Eye-lid; or a larger wart on the margin, if there should be no lancinating pain, and hardness, which might create a suspicion of a cancer, should it have a stem, it must be tied round with a thread; if small it may be consumed with cathæretics; if it should be deep seated, the scissars must be used.

If there should be a stian, or its grandinous Species, slightly red, and painful, it must be somented a long time with resolvents and suppuratives, or its nucleus must be taken out of the Cyst with the scalpel.——If there should be a somewhat large pultaceous tubercle, that must be opened, then the cap-

fule must be removed by mild corrosives, care being taken not to hurt the Eye.

Other tumors of the Eye-lids belong to Ophthalmy, Anafarca, Eryfipelas, Small-pox, Cancer, &c.

See Hordeolum and its Species, Sect. 1. §. 2. and Note.

25. Caligo a Lupia. --- St. Yves, p. 119 .---- Pladarotes, MAUCHARTII.

CALIGO, from LUPIAL-PALPEBRAIC TU-BERCLES.

Those Tubercles, called Atheroma, Steotoma, and Meliceris, &c. are Lupiæ, or encysted tumors filled with juice like pap, tallow, or honey, which often affect the Eyelids, without pain, redness, or danger; about the size of an hazle-nut; but are hurtful to the Sight, disagreeable to look at, and dissigure the face.

Resolvents are of no service---the cure is from extirpation alone; therefore the patient should be prepared by bleeding and a cathartic; half of the cyst, according to the direction of the Rugæ, should be laid bare,

The Lipoma, or adipose Excrescence usually arises in the temporal angle of the Eye, near the lachrymal Gland, and recedes from pressure, and presently returns. It is cured by excision, then the wound requires a collyrium of aloes, tutty, and saccharum Saturni in rose water.

26. Caligo a Cancero.

Caligo, from a cancerous Affection, See Cancerous Ophthalmy,

#### SECTION THE SECOND.

THE ANGLES of the Eyes, and LACHRY-MAL PASSAGES.

#### §. I.

1. Ophthalmia angularis.----Ophthalmie angulaire, ou de l'Angle Nasal.----Inflammatio carunculæ lachrymalis. St. Yves, 50, 182, 203. L.

#### ANGULAR OPHTHALMY.

with a tumor, sometimes a redness of the nasal Angle, a puriform Epiphora comes on; many, and those distinct, diseases occasion this Ophthalmy.---In the first place, from an Anchylops. See Epiphora ab anchylope. Secondly, from a Rhyas. See Epiphora a Rhyade. There is an inflammation of the lachrymal Curuncle, where the blood vessels swell and extend themselves as far as the Cornea, from whence often a pannus, or web-like excrescence, arises.

If a pannus should come on, let the following collyrium be used three or four times a day.

> R Vitrioli albi Iridis florentinæ aa Əj. infunde in Aq. fontan. Žvj. fiat.

What is meant by the Anchylops, Rhyas, and Pannus, will be explained under the proper divisions to which each are referred, and on the cure of those diseases will depend the cure of the Ophthalmy, of which we have been now speaking.

Cullen confiders this as an idiopathic Oph. thalmy, and is the only one he ranks under the affections of the greater angle of the Eye.

## §. 2.

1, Pterygium .--- Onglet,

PTERYGY---- A FLESHY, OF MEMBRANA-VASCULAR WING-LIKE EXCRESCENCE.

This is a fleshy, or membranaceo-vascular Excrescence, arising at the angle of the Eye, resembling an expanded wing, and extending itself towards the Cornea,

It differs from an Encanthis from its membraneous appearance---not spheroidal, nor granulous; from a Sarcoma, which arises from the palpebræ, and is spherical; but a Pterygy adheres commonly to the nasal angle itself of the Eye.

2. Pterygium ungula. Heister, Chap. 57 St. Yves, Chap. 23. Onglet. L. Ungulous, or NAIL-LIKE ANGULAR Ex-CRESCENCE.

This differs greatly from a Caligo, which an onyx, or unguis excites, although they feem to agree in name.

This is cured either by medicine, or an operation. The medicines are cathartics, as burnt alum, white vitriol, also verdigrease, which mixed with sugar very finely powdered, are sprinkled upon the excrescence every day, and consume it; but if the Pterygy is of long standing, and large, a thread should be passed through it, or it should be diffected off, and what remains be destroyed by gentle escharotics: still after the operation it should be fomented every night and morning with aqua vitæ.

3. Pterygium pannus.---le Drapeau.

The web-like palpebraic angular

Excrescence.

That Pterygy is the most frequent, in which, with a web connecting the Eye-lids, and extended towards the pupil there are red and turgid veins.---See Caligo a Pterygio.

It is cured in the same manner as the former; but the varicose veins are to be separated and cut with the right hand, and the cohesion with the palpebra destroyed. With these excrescences different Carcinomata, or cancerous affections of the Eyes, are confounded, which differ widely from these.

In performing the operation in order to cure this complaint, great care should be taken not to wound the Cornea; and though as little of the membrane should be left as possible, some portion had better remain, and be taken off by cathæretics, as this mode will be much the safest. When the membrane, as sometimes happens, covers the whole Eye, we are directed judiciously to divide it by a crucial incision, then separate each part, and proceed as before directed. Bell advises only dividing the vessels, by making incisions

cisions round its circumference, or through its substance, as many as will answer the purpose; if part of it becomes loose afterwards, separating it, not otherwise. See his Surgery, vol. 3.

## §. 3.

4. Caligo a Pterygio.----L'Onglet du Yeux, le Drapeau. L.

CALIGO, from a PTERYGY.

This is called Pterygy from its similitude to a Wing; by some, though improperly, Onyx, Unguis, and Ungula.——It is a membrane commonly from the nasal angle of the Eye, or arising otherwise, and extending itself gradually over the Cornea, in which the sanguiserous vessels are neither prominent nor distinct.

Each Pterygy, Unguis, or web-like Excrescence, the Ophthalmy, should there be any, being first cured, must be consumed, or cut off. To produce the first effect let the following powder be used.

Re Sacch. alb. 3j.

Vitrioli alb. vel Alumin. gr. vi. M.

A little

A little of this should be sprinkled on the part every day. Or administer the acrid collyria, as in a Leucomy; Scate or Eel gall, oil of paper, Lapis Divinus \*, juice of Celandine, &c. These being tried to no purpose, with a pair of scissars cautiously cut off the Pterygy, then for four days let the Eye be somented with aqua vitæ and water mixed, afterwards use the following collyrium:

R Aq. rosar.

Plantaginis aa zj.

Matris perlar. Dj.

Sacch. Saturni gr. vj.

Vitriol. alb. gr. iij. ft.

\* Lapis divinus——

R Aluminis,

Nitri,

Vitrioli Cypriani aa p. æ. folvantur in Ollâ figulina cui addatur Camphoræ paulum.

Six grains of this composition, added to some spoonfuls of water, two drachms of sugar, and one spoonful of spirits of wine, is the Aqua divina.

5. Caligo a Sarcomate. St. Yves, Chap. 58.
Mures. L.

CALIGO from a SARCOME, OF PALPEBRAIC FLESH-LIKE ANGULAR EXCRESCENCE.

A Sarcome is an Excrescence nearly similar to flesh. It is often adipose growing to the Eye-lids at the temporal angle, which also belongs to the nasal. It is of a different color from the part itself, and allied to a Pterygy, or Encanthis. This Sarcome is disagreeable to look at, and hurtful to the fight.

This fleshy, smooth excrescence growing between the Eye-lid and Eye, if it should be granulous and fungous, as well as red, is called Morus, from being like a Mulberry; by the French Mûre; if of a lead color Encanthis.

Either of these, if judiciously treated, are without danger. The Sarcome is taken away by two methods, excision and caustic. And first, it is to be touched with lapis infernalis, cautiously avoiding the Eye; secondly, a silken thread should be passed throw the tumor by the intervention of a needle,

that extirpation may be performed by the knife, or scissars: thirdly, then gentle corrosives are to be applied to the wound, such as the following;

> R Pulv. alumin. usti zj. Sacchari. zviij. M.

Half a grain of this powder is to be applied to the root of the Sarcome every night and morning.

6. Sarcoma encanthis. St. Yves, Chap. 18.
P. 136. In French, Mûre.

INTERSTITIAL PALPEBRAIC, OF LACHRYMA-CARUNCULAR SARCOME.

This is double on account of its feat. One is an excrescence of the lachrymal Caruncle itself; but the other, which is larger, arises between the palpebræ and globe of the Eye; the surface of both is granulous, like a mulberry, whence its name, the color sometimes red, sometimes resembling lead.

Its cure is performed two ways. First, by burning, by applying the lapis infernalis alone to the excrescence; secondly, by ligature, or more properly excision with a lan-

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cet, which done, the remaining part should be destroyed with the following powder:

> R Aluminis gr. xv. Sacch. alb. Zij. M.

7. Caligo a Cancero. St. Yves. L. Caligo, from a Cancer. See Cancerous Ophthalmy.

## §. 4:

EPIPHORA.----Delachrymatio, PLINII;
Rheuma Ophthalmon, GALENI Definit.
Med. Epiphora, GALENI 4. de locis, Cap.
5. TRALLIANI, Lib. 2. Cap. 1. PAULI,
Lib. 3. Cap. 12. Oculi lachrymosi; Illachrymatio; Lachrymæ morbosæ, GorRÆI; Lippitudo serosa, ETTMULLERI;
Larmoyement.

EPIPHORA, Or OCULAR EFFLUX.

This is for the most part a copious and constant essues of serous humor from the Eyes; the most common fountain is the lachrymal gland, placed externally above the Eye, whose excretory ducts open on the internal edge of the superior Eye-Lid; this humor

humor flows by the force of adhesion thro' a triangular space, left between the Cornea and cartilaginous margins, called Tarsi, and issues from the puncta lachrymalia, even as from capillary tubuli, from thence is carried by the nasal duct to the nostrils.

As often as there is no weeping, so often the quantity of tears supplied by the gland, is not larger than that which is transmitted by the puncta lachrymalia; but it becomes more copious in the first place from a more plentiful secretion; or secondly from a more sparing resorption; the secretion is most profuse when the mind is oppressed with grief; when this gland is irritated by any acrid vapour, dust, or inflammation; the transmission is more desicient, when either the puncta lachrymalia, or the ducts nasalis, are, by some means or other, straitened, obstructed, or oppressed, hence the various Species.

Dr. Cullen arranges this under his Class Locales, Local Complaints; and his Order, which he calls Apocenoses, Evacuations. It is called by some Authors the Watery Eye.

## 8. Epiphora a pathemate:

PATHEMATOUS EPIPHORA, or from MEN-

This either accompanies Hysteria, which weeping is quickly succeeded by laughing, or forrow, or commisseration from some external motive;—or in very violent diseases, as acute severs, it happens without any evident cause.——In this case I have observed only one or two small tears, which, if joined with some other of the worst symptoms, is a bad omen; if the rest of the symptoms threaten not dissolution, it portends only a hæmorrhage at hand from the nose.

9. Epiphora ab Ægylope. SENNERTI. Fistula Lachrymalis of Authors. La Fistule Lachrymale.

ÆGYLOPIC, OF GOAT-EYED EPIPHORA.

By the name Ægylops is understood an Exulceration, or Abscess in the great angle of the Eye, by which the nasal duct is in part, or altogether affected, so that purulent tears may flow by the nose, as well as the puncta

puncta lachrymalia, then they may flow back again by a fiftula formed in the vicinity.

Whence a fiftula is divided into complete and incomplete; indeed a Species is recited, in which pus did not flow from an interior abfects of this duct, but from one adjoining, having at that time burst from above---See Petit and Heister.

In this Fistula Lachrymalis, which the obstruction of the nasal duct promotes, an operation of Anell's, made more perfect by Mejan of Montpelier, is indicated, viz. a silver wire, perforated at one extremity like a needle, is pushed through one or other of the puncta lachrymalia, into the nostrils, but drawn out from hence, one or two silken threads are passed through the eye of the wire, and drawn upwards by the Eyes. In this nasal duct the threads are left like a seton for a month, besmeared with some detersive ointment, if necessary, and thus a passage is made for the tears, and the sistula healed.

10. Epiphora ab Anchylope. L.

Anchylopic Epiphora, or Epiphora from an angular cystic Tumor.

Anchylops, as if it were an angular Vifion, is a cystic tumor of the temporal canthus, either purulent, or lachrymo-mucous, with Epiphora.

The purulent or spurious tumor is from a subcutaneous abscess, or from an abscess formed between the orbicular muscle, and nasal sac; the first is of no moment; the last is sometimes attended with Epiphora, and may bring on an Ægylops.

The lachrymo-mucous anchylops recedes by compression, and then the tears flow back thro' the puncta lachrymalia, or pores of Gunzius---or also flow into the nostrils. It is excited either from thick viscid mucus obstructing the nasal duct; or from an infraction of the duct itself becoming spongy, or swelled by defluxion.

In the former case injection thro' Anell's syringe is sufficient; otherwise constant compression, made by bandage and pledget, repeated through the day, through the night

by plaister, the disease is often cured; spirituous and vinous liquors being added, in which the pledgets have been steeped, and the tone may be restored to the sac.

In the latter, a filver probe pushed thro' the puncta lachrymalia, opens the obstructions, a thread or two of cotton also added, observing the directions laid down before.

The purulent Anchylops begins with a hot, red, lancinating, or throbbing tumor, with fever, epiphora, ophthalmy: it depends on a true inflammation of the lachrymal fac, which suppurates --- whence it is distinguished from the lachrymous anchylops, and dropfy of the nafal fac; the puncta lachrymalia pour out pure pus, not puriform mucus, which is scarce distinguishable from pus, unless by the antecedent symptoms. The nostril of the same side is dry, unless fomething flows out in the night, which often happens. In that Species the inflammation continues or recedes; if it continues, spare, cooling diet, and bleeding, may be had recourse to; cooling ptisans may be used, nor should the antiphlogistic cathartics be neglected.

If a resolution should not succeed, a cataplasm of roasted apple, mixed with the white of an egg, should be administered, or with pulp of cassia, that suppuration may go on, which completed, the abscess should be opened with a lancet, deterged with injections of barley water; the lachrymal sac should be kept open with a small tent, and a cicatrix formed.

garab, amongst the Arabians.

RHYADAL EPIPHORA, or from Erosion, or Diminution.

The existence of this Species is greatly doubtful, unless a Rhyas may be occasioned by an erosion of the lachrymal fac; and therefore irritation, redness, and pain may be present, on which account the little ducts conveying the tears from the puncta lachrymalia to the nasal duct, are constricted; for tears do not flow, as many with the antients suppose, from their gravity in an healthful state; so that this caruncle being defective, they therefore flow not; as no one weeps merely because he lays with his face downwards.

Tho

Tho' SAUVAGE confiders this Species as very doubtful, still we have descriptions given of it by GALEN—he fays " It is an affection of the " Eye diametrically opposite to Encanthis, con-" fifting of too great a diminution of the lachry-" mal caruncle, in the larger angle of the Eye. " RIVERIUS allows the cause of it to be a con-" fuming, exficcating, or corrofive matter, and " fo it either succeeds or accompanies a fistula " lachrymalis; according to Fæsius, Eyes thus " affected are denominated by ÆTIUS, Rouades, " or Ruades."

In Sauvage's account of the Anchylops above there feems to be obviously an error, for he attributes that disease to an encysted tumor in the temporal angle, whilft his description all along adverts to the nafal.

Why the distinction of the Antients should be at present neglected with respect to the anchylops, and ægylops, and a general term adopted, which is in itself highly absurd, will not be easy to account for. Surely to denominate a complaint fistulous, where no fiftula exists, must be ridiculous-and the three different Species here enumerated are by the Moderns called Fiftula Lachrymalis. Some of the antient Physicians considered the lachrymal sac, in its state of tumesaction, as an anchylops, when ruptured an ægylops; and certainly the distinction ought to be preserved. However, I have subjoined the notes belonging to them in this place, and they will be considered according to the different affections of which they treat, collected in this general view.

Dr. RITCHER does not allow that this disease often happens from an obstruction of the nasal duct-but very rarely.-He observes, if the disease remains uniformly the same, if by compresfion no fluids are forced into the nostrils, if in the early stage of it, the lachrymal Sac is neither painful, nor inflamed, and that the fluid, which regurgitates from it, is a colourless mucus, or water, we may reasonably ascribe the complaint to an obstruction of the duct, provided these fymptoms have been preceded by any cause likely to produce such an effect; but it will seldom happen that the disease will cause the Sac to inflame, and the fluid contained in it to assume a puriform appearance. But it may be the case, thro' mismanagement, or some other accidental cause exciting inflammation. Under this circumstance herecommends an incision to be made into the lachrymal Sac, which then is to be lightly filled with lint, and covered with a plaister; four or five days after this operation, when there is no danger of

an hæmorrhage, MEJAN's probe is to be paffed. armed with catgut, and fuffered to remain there four or five days, then it is to be removed, and one of a greater thickness introduced in its stead In this manner proceed for about a month, increafing the fize of the catgut every five or fix days, till it is equal in bulk to the natural fize of the duct: this catgut is to be removed every morning, and the Sac cleanfed by injecting into it barley water, and honey, or any other emollient liquor; -the catgut should be pulled down always through the nostrils. At the end of four weeks, the emollient is to be exchanged for a drying injection of lime water, or Goulard's vegeto-mineral water, and instead of the catgut, a leaden probe is to be introduced into the duct. and the use of it continued for two months, or till there is not any longer the appearance of pus, and till a fluid injected into the Sac paffes readily and copiously into the nostrils, or the patient's breath, when his mouth and nostrils are shut, forces its way with violence through the Sac.

The cure also has been performed by the introduction of a gold or silver tube, in preference to any other modes.—See Watkins's Method of Application, 4to, Cadel, London, 1781.—Lond. Med. Journal.

The Epiphora, or Fistula Atonica, is owing to a state of atony, which prevents the lachrymal Sac from propelling the tears into the nostrils.— This though is seldom a primary disease, but generally produced by some other Species, either that from obstruction of the nasal duct, or the small-pox, Scrophula, Tinea, Arthritis, Lues Venerea, &c.—Strengthening applications are here recommended, and gentle pressure to prevent too great a distention of the Sac. London Med. Journal.

Mr. BLIZZARD proposes a method, Philosophical Transactions, Vol. 70. Part 1. which will perhaps avail only, in the first and simple stage, which is filling the Sac and Duct with quickfilver, by means of an instrument formed of a fine steel pipe, a little curved, cemented in a glass tube, fix inches long; at the top of the tube is a wooden funnel; the pipe must be passed into the inferior punctum, which may be done without pain or difficulty. The quickfilver then poured into the funnel, and, when it regurgitates from the superior punctum, withdrawn. In an experiment the quickfilver remained in the Sac and Duct thirty hours without exciting pain : on the third day the operation was repeated, and, upon gently compressing the Sac, the greater part of the congealed mucus, and quickfilver paffed passed into the nostrils. After the second of third operation, the swelling and distention of the Sac entirely subsided. The patient, after this process had been repeated four times, at the intervals of a few days, had no discharge of mucus, or a tear but very seldom; so that the part had a perfect healthful appearance.

Mr. Bell, in speaking of the Fistula lachrymalis, considers a sinus of the lachrymal passages attended with callosity, as alone deserving the appellation; though he enumerates the different states, which, with other authors, constitutes this complaint, arising from an obstruction to the passage of the tears into the nostrils.

The first Variety is when the lachrymal puncta, and duct connected with them, are sometimes obstructed, in consequence of burns, wounds, or severe inflammatory affections; and this only ought to be termed Epiphora, or a watry, or a weeping Eye, as the tears necessarily, in this simple state, fall over the cheek.

The second Variety is allowed, when the lachrymal puncta and ducts remain open, if obstruction takes place either in the under part of the lachrymal Sac, or in the duct leading from it into the nose, which is known by a small tumefaction forming in the internal angle of the Eye, which disappears by pressure, by a plentiful flow of tears passing into the Eye, and from thence over the cheek, and some portion of them frequently pass into the nose, on the Sac being pressed; this state of the disease, where the tears are pure, is called a dropsy of the lachrymal Sac;—frequent application of pressure often performs a complete cure; at least prevents the disease from giving much uneasiness.

The third Variety is formed, when the pasfage into the nose is completely obstructed, the fwelling in the corner of the Eye increasing, but still retaining the natural appearance of the skin. The tears are now mixed with thick, opaque, white mucus, differing confiderably from purulent matter; at last the tumour inflames, becomes tense, red, and painful to the touch, and the matter pressed out has a greater appearance of purulency. The tumor now puts on the form of a common boil, or abscess; it becomes gradually more inflamed, and more tense, till the integuments burst :--- when the aperture is small it heals in a few days, but soon bursts again, and continues alternating in this state of collection and rupture, till the aperture becomes fufficiently large to prevent any farther accumulation; -here now is the appearance of a finuous ulcer, with callous, and fometimes retorted edges, and hence the true Fistula lachrymalis:

when the bones beneath are found the difcharge is feldom either acrid, or offensive to the smell, but when carious, that state is not only discoverable by the introduction of a probe, but the matter is thin, setid, and commonly so acrid as to fret, and corrode the Teguments most contiguous to the ulcer; and when connected with scrophula or lues Venerea, the discharge and appearance of the sore will be different according as it happens to be combined with one or other of these diseases.

From what has been here advanced it is obvious, that whatever forms an obstruction in the
lachrymal passages, whether cold, meazles, inslammatory affections, or tumor in the contiguous parts, may constitute this disease, whether
the obstruction be in the nasal duct, or in those
leading from the Eye to the lachrymal Sac, in
both which cases the mode of cure will be nearly the same.

If the cause is inflammatory, the antiphlogistic method should be adverted to, and the inflammation taken off as quickly as possible; if from other diseases the method adapted to their cure must be persisted in: but should the passages be left obstructed after the inflammation is taken off, or the general morbid affections subdued, and a slight fullness only remain, occasional pressure, from time to time, with the singer, is

the only remedy Bell advises, as by this mode the complaint may be rendered very supportable, and all risque avoided of encreasing it, which would probably occur from trying the various methods instituted by probes, catgut, injections, quicksilver, &c. which he considers not only hazardous but uncertain.

It does not appear that any forcible objection can lie against BLIZZARD's method, where practicable, particularly if the obstruction in the nasal ducts should only be partial, and the tears will in part flow into the nostrils from pressure of the lachrymal Sac; on the contrary, it bids fair for expediting the cure, and paving the way for its being easily confirmed without any danger.

But when the tumor in the angle of the Eye becomes larger, inflamed, and painful, as the matter collected in it will be found sharp and acrid if not soon discharged, the contiguous bones may be affected by it.

In this case the Indications are,

To discharge the contents of the tumor—To procure a free passage in suture for the tears—And to prevent it from being again obliterated.

In order to attain these ends an incision should be made into the swelling, which, if firm and hard, should previously be softened with warm emollient emollient poultices applied constantly over the parts affected, in the most prominent and depending part, with a common lancet, and this should be pushed through the superior part of the tumor, clearly into the sac, and carried down in a strait direction to the most depending part of it. The contents being forced out of the swelling by gentle pressure, the wound should be kept open by dossils of lint covered with emollient ointment, or a piece of pressed sponge, dipped in melted wax, and in a fold of thin soft linen soaked in oil, of a size only sufficient to dilate the lachrymal sac, so as to admit of a free examination for the beginning of the duct running to the nose.

This being done, and the fore sufficiently cleared of a tough viscid mucus, which, for a few days after the operation, it is always covered with, we must endeavour to clear the nasal duct, by inserting a sirm round pointed probe, into the bottom of the lachrymal sac, insinuating its point into the commencement of the duct, and pushing it forward into the nose, which passage must be kept open till it is rendered perfectly clear and pervious by a piece of bougie, catgut, or lead wire.

But when the duct is obliterated, or the above operation proves unsuccessful, an easy and free artificial opening must be made into the nose

from

from the back part of the fac, through the os unguis, by a straight trochar, guarded with a canula-which will be known to have perforated through the bone by a small quantity of bloody mucus passing out at the end of the nose. In performing this operation, the instrument should be pushed on towards the nose in an oblique direction downwards, from the inferior part of the lachrymal fac, to that part where the nafal duct commences, and a perforation made by giving the trochar a rotatory motion. After this, thro' the canula, a leaden probe should be introduced, and pass freely through the aperture in the os unguis; the other end, after the canula is withdrawn, should be curved, standing about the eighth part of an inch above the furface of the external fore, which must now be covered with dreffing of emollient ointment, and over them adhesive plaister. The leaden probe should be worn at least eight or nine days, sometimes longer. After it is withdrawn, and the external wound healed, moderate pressure should be applied upon the course of the lachrymal sac by the patient's finger, or otherwise, till the fac, and parts contiguous have recovered their tone; and this also should be done, and the leaden probe continued as long, when the natural paffage has been opened, as well as in this cure.

Notwithstanding the greatest care, the disease will fometimes return, which is attributed to some general constitutional disease, or carious bones. If to the latter cause, the tumor must be again opened, and an exfoliation promoted, and afterwards another opening made in the os unguis; if from the first, a repetition would be In every case, however, where the fruitless. common operation has failed, canulas of highly polished gold, ought to be constantly worn, which may be done with proper management, introducing them after the inflammation occafioned by the operation, is over, and the opening formed in the os unguis is become somewhat callous, by the use of the leaden probe; care should be taken that the canulas should be of an exact length, to penetrate into the nofe, and to permit the teguments to heal above them.

When the tumor becomes ulcerated, the incision should be made with a scalpel upon a director, introduced into the ulcer, instead of a lancet:—If the os unguis, and contiguous bones are carious, the sores must be kept open till the diseased parts are removed, and if the sistula still remains, the operation must be performed as before. For a more disfuse and particular account of this disease, &c. see Bell's Surgery, vol. 3.

Fistula lachrymalis venerea, see Note under Venereal Ophthalmy.

næ. Sennerti, Cap. 4. & fusé Schenckii, Libr. Observationis.----Larmes de Sang. See Menorrhagia erronea, P. Borelli, Cent. 2. Obs. 56. L.

SANGUINEOUS EPIPHORA.

\* \* We have an account of this given us by Dodonæus, in a girl sixteen years of age, corpulent, of a warm constitution, and plethoric habit, who not having begun to menstruate, drops of blood would frequently fall from the Eyes; in the manner of tears; -blood drawn from the ankle was ferviceable, to which the menstrual discharge in a little time succeeded. It also arises from the obstruction of the Catamenia, and requires a return of them through the uterine or vaginal veffels; which we should attempt to procure at the usual period, when known, by bleeding in the foot, pediluvia-femicupia-gently stimulant and relaxing vapours conveyed to the uterus, warm fomentations to the pubes, and lower part of the back, purgatives of aloes and calomel-Tinctura Melempodii, and other uterine stimulants.

Where this complaint arises from torpor in the vessels of the uterine system, which is perhaps generally generally the case, such stimulants should be used as from their power will increase the vascular action of those parts, joined to local applications; and here cantharides are not an inefficacious medicine. If the obstruction should arise from spasmodic affections, antispasmodic and opiates are serviceable, always taking care, at the same time, to solicit the blood to the uterus by some external means.

# 13. Epiphora frigida. SENNERTI, C. 46. COLD EPIPHORA.

This is an involuntary efflux of ferous tears, without itching, pain, and heat; at least in a small degree only, if at all.

This follows long continued Opthalmies though cured; immoderate applications to study, as it happens to those about the age of fifty, when the fight is diminished, and objects, unless placed at some distance, cannot be seen. Winter coming on it is more violent, and cured with more difficulty. In the mean time, if the patient abstains from study, salt meats, and wines, avoids wind and smoke, and at night soments his Eyes with the following collyrium, this effect will decrease.

G 3 R Ca-

R Caryophillorum No. 4. infundantur in Aq. Vit. Zij. & ft. collyrium.

But if for fo flight an inconvenience he will have recourse to cathartics and blisters, as some authors advise, he will be the judge of their success.

# 14. Epiphora calida. SENNERTI, Cap. 46. HOT EPIPHORA.

This is a distillation of a serous humor from the Eyes, which is attended with a pricking heat, itching, redness, and pain of the Eyes, and this accompanies different Species of the Ophthalmy, chiefly the ulcerous and fistulous.

In this, besides the general remedies, as bleeding and cathartics; baths, cooling ptisans, milk whey, and also collyria slightly astringent, as those of roses, plantain, acacia, galls, red wine, vitriol, &c. are useful.

phora, GALEN. Introductione; Lippitudo fanguinea. ETMULLERI, Page 297. Ophthalmia humida, Sennerti; Chaffie. L.

# OPTHALMIC EPIPHORA. See humid Ophthalmy,

# 16. Epiphora ex Variolis. ETMULLERI. L. VARIOLOUS EPIPHORA.

This profusion of tears follows the small-pox, where pustules, suppurated, perhaps, within the nasal tube, produce its coalition, or infarction from thicker pus; it sometimes attacks the lachrymal duct; but whether always or not is a doubt. This therefore remains to be enquired into. Many infants, as they increase in years, are freed from this complaint.

This Epiphora is very rarely cured, as it commonly degenerates into a Fistula Lachrymalis, from a coalescence of the nasal duct, seldom originating from a mere mucous obstruction. Ritcher says he has found it the most difficult to conquer of any; though in schrophulous cases he has succeeded by means of Issues, Bark, Calomel, and extract of Hemlock; and when owing to a venereal taint, by Mercury. It has come on from the drying up of the Tinea Capitis, or G 4

scald head, but disappeared upon its return. Medic. Journ. Lond.

Though in the cure of some general diseases, where this is an attendant, on their being removed, the Epiphora often vanishes, still it is feldom the case in the small-pox; it for the most part, when formed from that source, is lest as a consequence, which must be treated according to the state, whether anchylopic, or ægylopic, as directed in those diseases.

## 17. Epiphora arthritica. Musgrave de Arthritide. Cap. 18. 21. L.

#### ARTHRITIC EPIPHORA.

A retropulsion of the acrid arthritic humor of the gout from the feet gives rise to this Species, which alternates with gouty pains, as well as sometimes excites the toothach, or pain of the lower jaw, attended with an efflux of tears.

This requires bleeding, blisters applied between the shoulders, and also the mildest collyria; as milk dropt into the eyes, the mucilage of slea-wort, or quince-seed, rosewater, trochisci albi rhazes, plaintain-water, &c.

In all cases of the retrocedent Gout, we should be very folicitous in drawing it back to the extremities, by warmth, stimulating cataplasms or plaisters applied to the feet .- Bleeding will rather, in fuch constitutions as are subject to this retrocession, be detrimental, by weakening the habit, and decreasing the circulatory powers, and thence increasing the causes from whence, most likely, this complaint originated. Anodyne topical applications, jointly with what have before been mentioned, are preferable, such as collyria, with Tinctura Thebaica, fomentations and cataplasms of poppy heads, &c. In strong robust habits, if the retropulsion hath been occasioned by accident, such as cold, or any indiscretion, the lancet may not be so improper, otherwise it is certainly better omitted ;-internal remedies, which will produce a gentle diaphorefis, and that supported by such medicines as neither heat the habit too much, or relax the tone of the stomach, are ever singularly serviceable.- It is faid in the Medical Journal of London, that an arthritic fiftula is apt to return in Spring and Autumn; but has been removed

by iffues, and the use of Aconitum, Antimony, and Bark.

18. Epiphora lactea. Ephemer. Germ. Dec. 2. Ann. 7, Obs. 98.

LACTEAL EPIPHORA.

This happened to an infant newly born,

## §. 5.

19. Ophthalmia febricofa.---Mortoni Pyretologia.--Exerc. 1. Cap. 9. De St. Mar-TIN Journ, de Medic. Sept. 1760. p. 228. B.

#### FEBRILE OPHTHALMY.

A fevere periodical pain of the Eye, attended with no redness, but with weeping, thirst, quick and strong pulse, urine very high coloured and turbid, was cured by the Peruvian bark.

Cullen denominates this a Symptomatic Ophthalmy, and ranks it with those, which proceed from diseases of other parts, or of the whole body,

Some other Species of the Ophthalmy might be not improperly arranged under this Section, as affections of the parts here spoken of; but they also materially affect other parts of the Eye, and that most commonly primarily, and therefore under those respective heads it hath been thought more regular to place them, though in the Table annexed to this work they will be specifically arranged in each place.

#### §. 6.

20. Exophthalmia a protuberantia.

Exorhthalmy, from Intraorbital, Protuberance.

This may arise from a scirrhus, or cancer of the lachrymal gland.

Observation hath often convinced us that scirrhi have arisen, and grown to a large size, from the sebaceous and other glands in the Eye-lid.—
The caruncula lachrymalis has been also similarly affected. HILDANUS extracted such a scirrhus growing in the great angle of the left Eye, as large as a chesnut, with success, and performed

formed a cure, without hurting the Sight, in the space of three weeks.—By the same author we have a more dreadful account related, of a large, hard, livid scirrhus, beginning to be cancerous, larger than a goose's egg, pushing out beyond the Eye-lids, attended with a violent hæmorrhage; this tumor, with the whole globe of the Eye, he extracted from the orbit, and cured the patient perfectly.

In the London Medical Observations, we have an account of a Cyst, detached from the lachrymal gland. The symptoms were pain and dimness of sight in one eye, which continued a long time; afterwards in that eye total blindness succeeded, and protrusion of the globe, so as to form an extroversion of the interior palpebra. On examination by pressure, a resisting sluid was perceived underneath, which was imagined to be contained in a cyst from the lachrymal gland.—The complaint was cured by extraction of the cyst, and the Eye returned in time within its orbit, and some sight was recovered.

In order to perform the operation, the surgeons covered the sound Eye with an handkerchief tied round the head, and then compressed upwards the distorted palpebra, till it was brought as near as possible to its natural position, and thus held tight, till the integuments were cut through, into the lower part of the orbit of the

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Eye; under the adnata, an aperture sufficient being made to introduce a finger behind the globe of the Eye, fo as by the touch to be able to di. rect a sharp pointed scalpel, which perforated the fubstance underneath.-Immediately a thin pellucid liquor was discharged, filling nearly a small wine glass. After some respite two small hooked instruments were introduced to catch hold of the cyft, and it was completely extirpated. The wound in the orbit was filled with lint, and dry dreffings, and there secured by a proper bandage; but within less than twenty-four hours, the patient's head and neck, a great way down that fide, were swelled, and inflated to a prodigious degree. This fymptom was, however, after some time, removed, by enlarging the wound, and dreffing it only very lightly with dry lint, and by a few gentle purges; fo that in less than a month the whole was completely healed.

## §. 7.

21. Strabismus Caligantium.

CALIGINOUS STRABISM, OF SQUINTING.

Those are said to labor under Caligo, who cannot, from a perceptible and external disease, see clearly; as from Pterygy, Pannus, Leucoma, Hypopyum.

If, therefore, the opacity of the Cornea should be in the region of the Pupil, in that case the afflicted are forced to see laterally from the space between the leucoma and nostrils, or between the leucoma and external angle of the Eye.——See the cure of Caligo from these causes.

#### SECTION THE THIRD.

THE MEMBRANA CONJUNCTIVA, OF CON-JUNCTIVE MEMBRANE.

## §. I.

OPHTHALMIA; Pituita. Horatti; Lippitudo, Celsi; Oculorum Inflammatio;
Dolor Oculorum, Sennerti; Ophthalmaponia, Heister; among the French,
Ophthalmie, Mal aux Yeux.

#### OPHTHALMY.

THIS is a disease of the Eye, discovered by pain, redness, incapacity of bearing the light, and weeping. The pain and incapability of bearing the light, are the two principal symptoms—Redness is only prefent in external Ophthalmies.

When an Ophthalmy is attended with inflammation, as it generally is in most Species, redness, heat, tumor, and tension accompany the pain: the cause of all which is the impetus of the blood against the sanguiserous vessels of the Eye, thence a distrac-

mies arise, which run into suppurationwithout any redness, or tumors that are conspicuous, as when the crystalline lens maturates, and this BOERHAAVE allows a lymphatic inflammation.

The incapability of bearing the light proves the increased sensibility of the retina, whether there should be a phlogistic infraction; or the choroidæal membrane, or its expansion the uvæa, should become too tense; or the sclerotica should have, at the same time, consentaneous affections: in all these cases the myosis, or contraction of the pupil takes place, and is proportional to the inability mentioned above.

With regard to the cure of Ophthalmies, as far as they belong to external inflammation; at first, if necessary from the prevalent plethora; bleeding and general evacuants are requisite; with the antiphlogistic regimen; topical bleeding may perhaps be sufficient, and leeches are preferable to arteriotomy; the number of leeches should not be less than three, confined in this application as near each other as possible, in the hollow of the temples:—bleeding in the Eye itself,

itself, though strongly recommended by some, is apt to irritate, and is only necessary when a leucomy is fed by one or more diffinct blood veffels, then they may be divided with the lancet or needle.—Bleeding in the jugular vein is often ferviceable-and keeping the head shaved in obstinate cases is highly proper.-Blisters of the fize of half a crown, applied over the orifices made by the leeches are useful. - The chief topical application is opium, joined with fome gentle stimulant, as the Tinct. Thebaic, Pharm. Londinensis. In slight cases this is commonly of itself sufficient, and indeed in more obstinate cases, after proper evacuations, two or three drops should be dropped into the Eye affected two or three times a day. Opium fimply diffolved in water is not fufficiently efficacious, it should be joined with some gentle stimulants; a practice similar to this was known to the antients; for in CELSUS we find almost all his collyria for this complaint have the lachrymæ papaverum joined with stimulants in them .- Keeping the body cool by proper diet and medicines, should be observed, and the Eyes free from any thing which may irritate them.

Dr. J. GULDIBRAND recites a case, which recurred after the small pox, where blisters, evacuants, saturnine, and other topical applications were tried without effect, and the inflammation

increased so much, that matter was discovered perceptibly behind the Cornea, (as happens in some cases of Ophthalmia ab ungue, hence called Ophthalmia hypopyum, q.v.)—In this alarming state an issue was made in the patient's arm, and this, together with a cooling diet, and occasional purges of jalap and calomel, essected a cure, in about three weeks.

Dr. Cullen divides Ophthalmy into inflammation of the Tarfi, and membranes of the Eye. These are sometimes separate, sometimes connected together, but are to be diftinguished, as one or other may be the primary affection. The complaint arises from spasm of the minute extremities of the small arteriolæ from external causes, as also from internal acrimony of the humours with local congestion .- In the inflammation of the adnata, there is a turgescence of the veffels, attended with pain, especially upon motion of the ball of the Eye; and this irritation, like every other applied to the furface of the Eye, produces an efflux of tears from the lachrymal gland. The inflammation commonly and chiefly affects the tunica conjunctiva, spread on the anterior part of the ball of the Eye, but ufually spreads along the continuation of the adnata, on the infide of the Eye-lids; and as that is extended on the cartilaginous margins, the excretories of the sebaceous glands opening there, are alfo

also frequently affected; when the affection of the adnata is considerable, it may be communicated to the subjacent membranes of the Eye, and even to the retina itself, which thereby acquires so great a sensibility, that every impression of light becomes painful.

According as the conjunctiva is more or less affected, or according as the inflammation is either of that membrane alone, or of the subjacent membranes, the inflammation of the membrane of the Eye is in different degrees, and upon these differences, different species have been established, and different names given to them—but are to be cured by remedies of the same kind.—The different circumstances of the Ophthalmy may be explained by the difference of its remote causes, and by the different parts of the Eye which it happens to affect.

The cure of the Ophthalmy of the membranes requires the remedies proper for inflammation in general, and when the deeper feated membranes are affected, and especially when pyrexy is present, large general bleedings may be necessary. But this last is seldom the case, and for the most part the affection is purely local, accompanied with little or no fever. The cure therefore is obtained by topical bleedings, viz. drawing blood from near the inflamed parts, opening the jugular vein, or temporal artery;

it is commonly sufficient to apply a number of leeches round the Eye.—It is perhaps better to draw blood by cupping, and scarifying the temples. In most cases, the most effectual remedy is that of scarifying the internal surface of the inferior Eye-lid, and dividing the turgid vessels on the adnata itself.

Purging is sometimes useful, where general evacuants are necessary, not otherwise.

For relaxing the system, and taking off the determination of the fluids to it, blistering near the part, has commonly been found useful.

Ophthalmy, as an external inflammation, admits of topical applications. All those, however, which encrease the heat, and relax the vessels of the parts, prove hurtful.—The admission of cool air to the Eye, and the application of cooling astringent Medicines, which, at the same time, do not produce irritation, are of service.—All irritation, and particularly that of light, is to be avoided—hence the patient should be kept in a very dark chamber.

The same remedies may be necessary in the tarsal Ophthalmy, as far as it depends upon an Ophthalmy of the membranes. See Note to Ophthalm. tubercul. p. 22.

1. Ophthalmia Taraxis.——AETII PAULI,
Lib. 1. Cap. 22. Ophthalmia notha,
SENNERTI; Ophthalmia catarrh. St.
Yves, Sp. 3. De Meyserey, Art. 383,
382. B.

TARAXICAL, OF SIMPLY EXTERNAL OPHTHALMY.

This is the mildest of all the Ophthalmies, being supported by no internal, præexistent desect in the habit, and depends only accidentally on some occasional cause, as cold, evening dew, smoke, wind, straining the Eyes by looking at minute objects, from the effluvia of onions, garlic, dust, &c.

This is cured both by nature and art, viz. Nature sweeps away, or washes off dust, or acrid miasma, by a flux of tears; she appeales the pain arising from light by closing the Eye-lids in the day time; medical art, the imitator of nature, stretches over the Eye a shade made of green silk; advises darkness; orders the Eye to be washed with warm water; and also the patient to abstain from all offending causes, which create stimulus; chiefly reading in the night, wind,

H 3

and

and fun-shine: if any thing should adhere to the Eye, or between the Eye-lid and Eye, it should be extracted, first having the Eyelids elevated, with a small feather, a piece of soft paper, or rag.

Though in common cases early attended to, the modes of cure here recommended are generally fufficient, yet still some times extraneous bodies will adhere so firmly, that they will require a probe guarded to take them off, and often repeatedly washing the Eye by means of a fyringe; fometimes they will stick into the Eye, and be obliged to be extracted by forceps .--Whenever an inflammation comes on very fuddenly, the body otherwise apparently in perfect health, the Eye should be examined with attention; for in most of those cases some extraneous body adhering to some part of the Tunica adnata, constitutes the cause.-From such a circumstance, a particular friend of mine was bled, purged, fomented, and poulticed, by the advice of a very inattentive, or ignorant furgeon, and would probably have experienced a longer continued and severe regimen, had he not fortunately been relieved by the fagacity and experience

rience of a more informed practitioner.—But should any extraneous body remain so long, as is sometimes the case, before it is extracted, or washed away, the inflammation even will continue afterwards, we must then proceed to remove the effect by the means above directed, as in the cure of Ophthalmy.

2 Ophthalmia pustulosa—St. Yves. Maladies des yeux; Ophthalmie Bourgeonêe, L.

#### PUSTULOUS OPHTHALMY.

In this Species Fasciculi, or small hurdles of red vessels, run from the interior tunic of the Eye-lid to the Cornea, and at its periphery a pustule is formed of the size of a lentil—but if the pustules should reside in the Cornea itself, there pus being formed, the abscess discovers itself by its whiteness.

The cure requires a folution of aqua divina (fee Caligo a Pterygio) in water, if the pustules touch not the Cornea—but should they touch the Cornea, and have formed abscesses, that the abscesses may be opened, distilled water of camphor is dropt upon them guttatim, and when the pustules

are opened, we must have recourse to a solution of the Lapis divinus.

3. Ophthalmia erysipelatosa. St. Yves, Sp. 8.

ERYSIPELATOUS OPHTHALMY.

This is more properly herpetica, tettery—for in this, besides the redness of the tunica conjunctiva. tumor of the Eye-lids. with intolerable pains of the head and Eye, and excessive heat, crustæ arise, and surfuraceous scales on the forehead, temples, and nose, which being healed the cicatrices of the parts remain.—The disease is obstinate and difficult to cure.

It requires first a fomentation;

R Aq. Flori Sambuci žix. Sp. Vini Rectif. žj. M.

Secondly, a feton should be made in the neck, bleeding, and a cathartic, having been premised, and also we must have recourse to blisters placed between the shoulders, and ears, on account of the pains, should it be required; reiterated bleeding will be necessary; and anodynes must be called to our assistance.

4. Ophthalmia humida. Epiphora. GALENI Introductione Ophthalmia vera. SEN-NERTI.

#### HUMID OPHTHALMY.

This is as habitual as the dry Ophthalmy, as it has its fomes in the mass of blood, whence it becomes obstinate.—This is known from the abundance of tears, and swelling of the Eye-lids round the tars, as well as copious inflammation; lancinating pains of the Eye; incapability of bearing light; redness of the interior part of the Eye; with the impossibility of opening the Eye-lids;—hence specks succeeds in the Cornea—often amongst children the cheeks will be excoriated by the tears; the nose and lips swell from the prone situation, and hanging down of the head.

Bleeding in the arm, foot, and neck, and also three or four leeches applied in the vicinity of the Eye, are requisite; on the third or fourth day, a cathartic of senna, manna, and tamarinds;—these being complied with ptisans of lettuces, forrel, and endive should be used, at night narcotics, a large vesicatory should be applied between the scapula; or

in children, the discharge from the ears should be promoted, and encouraged, that a revulsion of the acrid ferum may be folicited from the Eyes .- The cathartic should be repeated, and domestic baths used, unless the state of the tongue, and stomach forbid them .- In the mean time the mildest collyriums are to be applied to the Eyes; the pulp of apples boiled in milk; new milk itself whilst warm, mucilage of quince feeds and flea-wort, white of egg with rofe water, or which is preferable, because it glues not up the Eyes, the white of egg inspissated with a little alum, and folded in cloth; also the white of egg boiled hard, and cut tranfversely, dipped in rose or plantain water; the heat being appealed, role water with a little aqua Saturni, or faccharum Saturni may be administered. Or,

R Aq. Rofarum

Fænicul. aa žij.

Sacch. Satur. gr. ij.

vel

Trochis. alb. Rhaz. 36. M

The pain being relieved, the Eye ought to be sprinkled with pulvis tutiæ in the night, that

that the Eye-lids may be opened in the morning, otherwise a lippitude glues them up; lastly, in this inveterate Ophthalmy, vitriol, either white or roman, ought to be dissolved in water, so that if dropped into the Eye, it may create a smart, but momentary pain, the following produces that effect.

R Aq. Rofar. zvj. Vitriol. alb. Di. Sacch. alb. zj. M.

That collyrium ought to be used at night, nor should the Eyes be loaded with compresses, or bandages; those acrids should never be used in the morning; but the Eyes should be fomented, or bathed with warm water, or rose water.

There are some who add three grains of verdigrise to the vitriol, or who administer wine, in which copper money has been infused; or who insuse the lapis divinus in water, and in the evening drop a little in the Eyes; which collyria, also happily succeed, if only the blood has been rendered bland and mild, by the use of baths, bleeding, and broths.

5. Ophthalmia Chemosis.—St. Yves, Sp. 9. Chemosis, Ætii; Traumatica de Meyserey, Art. 382, 383. A.

CHEMOSIC, OF CONJUNCTIVA-CORNEA-PALPEBRAIC OPHTHALMY.

This arises from an external cause, as a violent contusion of the Eye, whence an hyposphagma, q v. or from a chirurgical operation performed on the Eye, an extraction of a cataract; from the operation for the unguis, or empyesis, &c. or from an internal cause, as metastasis, or severe catarrh, in cacochymic habits.

It is known by the black-red swelling of the Conjunctiva, with a depression, and obscurity of the Cornea, which seems to be in a cavity.—The inflammation is severe with excruciating pains of the Eye, and head, a sense of weight also above the orbit, pervigilium, sever, pulsation, a swelling, and occlusion, or shutting of the Eye-lids.—It terminates sometimes in suppuration of the Eye, whence an irremediable blindness, at least leucomata succeed it; the blood drawn into

into a bason has a coriaceous surface on the crassamentum.

Not any thing is more useful at the onset, than repeated bleedings in the arm, seet,
and neck; some leeches should be applied
to the palpebræ, which SAUVAGES has often ordered; some have recommended Ophthalmoxysism, or scarification of the Eye;
after two or three bleedings, the following
cathartic.

R Fol. sennæ. zij.

Rhæi zj.

Sem. Lini:

Flor. Violar. aa Pugill. 1.

Mann. zij. vel ziij.

Aq. bullientis q. s. ut st. infusum.

Some prescribe a more drastic cathartic of scammony; we must again return to bleeding; at night diacodion, or laudanum, in order to produce sleep, should be administered, with a cooling, dilute diet.

In the mean time the Eye ought to be fomented with warm milk, pullet's blood, the warm pulp of apple boiled in milk; all cataplasms which from their weight prove noxious should be prohibited; an insusion

of faffron, linfeed, and marsh-mallow leaves will suffice; but after a few days resolvents may be tried, as wine or aqua vitæ mixed with water; nay, should a livid color, a diminution of pain point it out, aqua vitæ camphorated, is indicated.—St. Yves recommends pledgets moistened with wine, in which an handful of rosemary, sage, and hyssop have been insused to half a pint; and also, if the palpebræ and the conjunctiva cease to swell, the following collyrium.

R. Aq. fæniculi zij.
Sp. Vin. camphor. zss. M.

particularly if leucomata be prefent.—In the mean time the diluting drink should be changed for a resolvent one; which should be made with sour pints of ptisan, with one dram of the diaphoretic mineral.—A blister should be applied between the shoulders; the body should be kept lax with clysters; broths of chicken, cold seeds, endive, lettuce, and sorrel, the use of the former ptisan being over, should be continued for ten days.—If signs of a suppuration be present, the hand of the surgeon is necessary, to eliminate the pus; and heal the wound,—if a synchesis or dissolution

diffolution of the vitrous humor comes on, an artificial Eye should be fitted to the place of the natural one, that at least deformity might be avoided.

6. Ophthalmia phlyEtænodes.—PhlyEtainæ of Authors. PhyEtænæ Corneæ, Sennerti; PhlyEtides, also from phlizein, fervere; Pustulæ, by the Arabians Bothor.

PHLYCTÆNOID, OF VESICULAR OPH-

These are little vesicles, or bubbles about the size of a grain of millet seed, arising commonly in the Cornea and Conjuctiva; which, when in the latter, are surrounded with a red or black circle; when in the exterior lamina of the Cornea, they grow black; when they lurk deeper they are white; sometimes Sennerus has observed them larger, and solitary, equal to the size of an hazel-nut;—They terminate either by resolution, which is the most eligble mode, or by rupture into the interior parts, or by an external ulcer, which sometimes erodes the Cornea to a considerable extent.

In order that the resolution may be obtained, let the general aids called into Ophthalmy be had recourse to, such as bleeding, spare diet, emollient somentations; cathartics are not to be omitted.—Let the somentations be made as follows:

R Sem. Psyllii Mucilag.
Cydoniorum
Fænugiæci, aa zij.
Aq. Rosar. zij.
Flor. Samb. ziss.
Croci Əj. Ft.

The puftule having fubfided, or the inflammation remitted, resolution may be thus attempted.

R Aq. Rosar. Zij.

Euphrasiæ Zs.

Opii

Tutiæ aa Đi.

Vitrioli albi gr. xij. Ft.

The white, nay the yolk of an egg with fugar and faffron is useful, fomentations also of decoctions of mellilot, vervain, rue, and red roses. If the pustule should remain, let it be opened with a silver needle, and let the ulcer be cured as ordered in the caligo, from the unguis, and elcoma, q. v.

8. Ophthalmia metastatica.

METASTATIC OPHTHALMY, OR FROM RETROCESSION OF MORBID MATTER.

This arises from a retrocession of morbid matter of the gout, scabies, tetters, erysipelas, issues, setons, ulcers, &c.

Besides the general assistance, this disease requires a sollicitation of the return, or renewal of those complaints, and sluxes of humors which occasioned it.

These five Cullen ranks under the first division of idiopathic Ophthalmy affecting the Tunica Adnata, and membranes, or tunics of the Eye, lying under it.

9. Ophthalmia Venerea—BAGLIVI, pag. 202. Ophthalmia Gallica Zacuti Praxis; Ophthalmia venerea, Camerarii Differtat. Tubingæ. 1734. Aloys Luisini. p. 665. Locher. de Lue venerea; Ophthalmie Vénérienne. St. Yves, Sp. 10.

VENEREAL OPHTHALMY.

This is divided into two Varieties; Metastatic, or translation of matter, and symptomatic; tomatic; each of which depend upon the venereal virus, and grow worse towards night.

The fymptomatic remits towards morning, never runs into a chemofis; the morbific matter never changes its place, the pains are more lenient, it is conquered by the fyphilis being cured, and imports less danger: it is observed in the second stage of the fyphilis.

The metastatic does not remit towards the morning, it always runs into a chemosis; the morbific matter changes its seat; it is attended with more violent pain; the syphilis being cured, cures not this Ophthalmy, and besides is more dangerous.

The heat, pain, redness encreasing in bed, must be attributed to the venereal virus, and also, because the disease resists common remedies.

The metastatic Ophthalmy is discovered from a tumor of the sclerotic membrane, and its livid appearance, as well as severe lancinating pain, the Cornea being depressed as if in a small cavity; and also from this, the gonorrhœa being repressed by a translation

of the venereal virus into the Eye; and very often the gonorrhæa incurable before, has vanished this Ophthalmy arising, and this Ophthalmy has succeeded reciprocally on the return of the gonorrhæa.

The venereal Ophthalmy in general is cured by mercury, but never to be applied to the Eyes; some recommend sudorific decoction, and mercurial pills internally; at Montpelier inunction alone is exhibited .-In the metaffatic venereal Ophthalmy befides mercury, it is expedient to evacuate the virulent matter collected in the cellular texture of the sclerotic membrane, and Eyelids, by flight fcarifications of each membrane; but ichor, very like that of a gonorrhœa, iffues forth, according to the illuftrious Nicolas, and Camerarius; Sau-VAGES thinks it would be better to institute that operation, after a mercurial course had been entered upon, than previous to it, as CAMERARIUS recommends.

It is very like the humid Ophthalmy, and chemofis, except that in the fyphilitic, the conjunctiva is as it were fleshy, and a little hard; it begins with a lippitude, or sebaceous epiphora very copious, from white becoming yellow, it resists all remedies except the antisiphilitic, it often comes on after a gonorrhœa has been stopped unseasonably two days. A surgeon of Montpelier contracted this Ophthalmy by laying upon a pillow besmeared with a syphilitic ptyalism.

The cure here requires an extinction of the venereal virus; mercurial inunctions, with the unguentum Neapolitinum are held in the highest estimation; twenty-five, or a greater number of baths having preceded, after bleeding and a cathartic. St Yves advises the mercurial panacea.

R Panaceæ mercurialis 3j. Rhæi pulverizati. 3iij.

Balf. Copaiv. q. s. ft. Opiata, cujus dofis 3j. quotidie manè sumenda, purgetur æger quarto quoq; die.

R Aquil. alb. (calomel)

Gum. Ammon. aa gr. xv.

Trochifar Alhandal (Colcynthidis)

gr. v.

Syr. Flor. persic. q. s. ut ft. bolus.

But it is very often better to use the most common purgative.

PLENCK

PLENCK divides this into two Species :

An Ophthalmy from gonorrhæa,-and from an universal lues .- Of the first he says, a very copious flux of a puriform humor, two or three days after the suppression of the gonorrhæa, of a whitish yellow colour, and like the matter which flows from the penis in that complaint, issues from the inflamed Eye. The redness of the Eye almost always runs into a high inflammation, so that the Cornea, from the extreme tumefaction of the membrana albuginea, appears depressed. This Ophthalmy generally degenerates into suppuration and exulceration of the Cornea and albuginea, from which an opacity of the Cornea, an hypopyum, or incurable blindness, from the internal parts of the ball being destroyed, remains.

Immediately on the attack of the inflammation, bleeding should be prescribed, and an antiphlogistic purgative, then thirty grains of a mercurial pill, formed of one part quicksilver, three of gum Arabic rubbed into a mucus with syrup of succory and rhubarb, to which is added half an ounce of the crumbs of bread, must be taken every day; and the Eyes washed with mercurial milk, made of quicksilver one part, gum Arabic four parts, rubbed into mucus with syrup of diacodion, to which must be added.

ded cow's milk eight ounces, or a very dilute folution of corrofive sublimate, every hour. By this method he has cured many, and prevented blindness. Whilst, by the common modes of bleeding, leeches, blisters, issues, purgatives, given for eight days, discutient cataplasms applied to the Eyes, and emollient somentations to the penis to solicit a return of the gonorrhæa, besides scarifications of the membrana conjunctiva, have had no effect; and by this method he has seen many become blind.

Bougies besmeared with venereal virus, and introduced into the urethra, might be tried to solicit the return of the gonorrhæa; as Lange relates such an effect produced by impure coition in a patient afflicted with the gonorrhoic Ophthalmy.

The fecond Species is not so violent, remits about morning, and never runs into a chemosis.

It is cured in the same mode—He makes use also of his balsamum ophthalmicum mercuriale, which follows;

R Butyri recen. infulsi ziij.

Ceræ albæ zs, liquesactis, adde 
Merc. præcip. rub. zijs.

Tutiæ zi.

Camphoræ, in oleo ovor. Əß, folutæ gr. xxxxv. ft. unguentum. ter de die lentis magnitudo illiniatur oculo.

A de

A decoction of mallows, in which a grain of corrofive sublimate had been dissolved, sometimes was quickly serviceable.

He speaks also of a VENEREAL LIPPITUDE, which he describes, an exsudation of a puriform humor from the margin of the Eye-lids. This he divides into two Species—

I. A LIPPITUDE from a GONORRHOEA, or Fluor Albus suppressed.

This Species is a fore-runner of a gonorrhoic Ophthalmy; but it is fometimes a chronic malady.

2. VENEREAL LIPPITUDE OF NEW-BORN INFANTS.

Infants born of a venereal parent, some weeks after their birth, begin to be afflicted with intumescence of the margins of the Eye-lids; in a little time after a large quantity of whitish green pus slows from the Eye, such as is discharged from the urethra in a gonorrhæa, the inflammation of the Eye is sometimes trisling, sometimes considerable. This lippitude is the primary symptom of the lues venerea lurking in the infant. Sometimes it appears without any other venereal sign, and, injudiciously treated, runs on into the worst species of suppuration of the Eye, and blindness.

Both these require the same mode of cure as the last venereal Ophthalmy. The VENEREAL FISTULA LACHRYMALIS of the same author is defined—

An efflux of puriform liquid, expressed from the puncta lachrymalia, from venereal virus being deposited in the glands of the lachrymal sac, and thus divided—

# GONORRHÆA.

It is cured by the pill above described, taken internally, and externally by the application of a very dilute watery solution of sublimate. Petit cured a fistula in each lachrymal sac, and an ulcer in the palate, arising from a latent lues, by mercurial frictions.

# 2. LACHRYMAL FISTULA from a CARIES OF THE LACHRYMAL BONE.

This is the worst Species—besides internal mercurials, it requires spirit of mastic mixed with corrosive sublimate to be applied to the caries.

The VENEREAL STIAN he describes,

A red tubercle like a small boil, on the margin of the Eye-lids, originating from venereal virus.

It is cured by the mercurial pill internally, and the application externally of the mercurial milk.

Cullen arranges these two Ophthalmies under the symptomatic division from diseases of other parts, or of the whole body.

### §. 2.

Hæmalops. HIPPOCRATIS; Hypopyon GALENI, Ecchymoma, with others; Sugillatio, with the Latins; Tarfen of the Arabians; Ecchymofe æil poché, Meurtriffure de l'æil.

Hyposphagmatic, or Nigro-sanguinary conjunctival Caligo.

Hyposphagma is a suffusion of blood, and blackness in the tunica adnata of the Eye. It differs from an Ophthalmy in want of pain, heat, and inflammation. It is complicated with it in the beginning, if it proceeds from a blow; but sometimes it may arise from internal causes, as scorbutic virus, &c. in which case antiscorbutics are of service only.

If from a blow, or contusion, it is cured by repeated bleeding, equal to the pain, inflammation, violence of the stroke, and number of symptoms, and also leeches applied to the Eye-lid.—Secondly, In the beginning the warm blood of a pigeon, or pullet, should

be poured into the Eye; warm milk tinged with faffron; a collyrium of white of egg and rose water, shook together.—Thirdly, The pain being relieved, warm wine, aqua vitæ, fennel water, decoction of hyssop, the leaves of pellitory bruised in wine, or vulnerary water; a cataplasm of them, or rag dipped in them, are to be applied three times a day.

# §. 3.

2. chap. 4, 5, 6. Astruc de Morbis Venereis, lib. 9. cap. 3. §. 3. D.

EXOPHTHALMY, from a CONJUNCTIVA-CORNEA-PALPEBRAIC OPHTHALMY.

This arises from a stroke given on the Eye, or in its vicinity; from a critical defluxion falling upon the Eye in fevers; from a phlogistic lentor translated from an inflamed part to the conjunctiva; from a metastafis or translation of that humor which flows sparingly, or not at all, in a virulent gonor-rhæa, made upon the conjunctiva.

The diagnostic symptoms are, such an intumescence of the conjunctiva inflamed, painful, and hot, that appears higher than natural to the finger placed over it; the Cornea lays depressed, as it were, at the bottom of a round cavity; pain of the head; very great pain in the Eye; and heaviness above the orbit are present; also loss of sleep, fever, and pulfation-the Eye stands forward, nor can it be covered altogether by the palpebræ, which are prevented from closing, and are also turned outward .- The venereal chemofis is accompanied by the fame fymptoms, with this difference, that in that the conjunctiva appears very greatly fwelled, hard and fleshy, and a thick acrid, yellow matter, altogether like that of the gonorrhic humor drops from innumerable points.—The cure is to be taken from St. Yves and Astruc. See also Ophthalmia chemosis,

#### SECTION THE FOURTH.

THE CORNEA, OR HORNY MEMBRANE.

## §. I.

1. Ophthalmia ab elcomate. MAUCHARTII de Ulcere Cornea, Dissertat. 1742. L.

ELCOMATIC, OF ULCEROUS OPHTHALMY.

THE Varieties of Ulcers are several.

1. ARGEMA, argemous, or silvery.

An ulcer in some part of the external circle of the Cornea, about the breadth of half a line, with a redness of the tunica conjunctiva, but with a whiteness of the Cornea.

- 2. BOTRION, botrionic, is a small ulcer of the Cornea hollow, straight, clean, without purulent, or thick, scaly sordes, equal to the head of a pin; if it should be in the internal lamina of the Cornea, it creates gerontoxon, a staphiloma succeeds.
- 3. EPICAUMA, epicaumal, an external ulcer very often in the middle of the Cornea, foul, fordid, hot, or burning, ash-colored, sometimes

fometimes like flocks of wool, not so deep as an encauma.

- 4. EUCAUMA, encaumal, a very ardent ulcer of the Cornea, thick, or scaly fordid, and difficult to cicatrize.
- 5. CÆLOMA, cælomatic, a hollow, round ulcer, broader, but not so deep as the botrion, residing in that region of the Cornea which is nearest the iris.
- 6. ELCIDRION, elcidrionic, a superficial ulceration of the Cornea made by a certain, clear, sudden sluxion.

The causes of Ophthalmia, are wounds, contusions, phlyctenæ, epiphora, Ophthalmy, staphiloma, acrid collyriums, variolous pustules, in cachectic, scrophulous, and syphilitic habits; after feeding on acrid sood, the use of telescopes, studying much by candle-light, a trichiasis, Ophthalmy, inability of bearing the light, clouded vision, and sensation of sand in the Eye, are apt to come on.

The indications are first, to prevent the afflux of humors, things which are not natural being taken from the Eye;—here bleeding, cathartics, and depuration of the blood

blood are necessary.—2dly. To clean the ulcer with the lapis divinus (see page 63.) of St. YVES, for which purpose it is in high estimation.

Acrid faline matters are corrected by tutty, chalk, gum arabic, mucilage, marsh mallow roots, milk, white of egg :- Abster-Gon is performed by frequent ablution with the decoction of wormwood, St. Johns wort, lime-water, ointment of tutty, or powdered fugar, florentine orrice root, aloes and os fæpiæ. -- 3 dly. Confolidation of ulcers requires bland, mild food, decoction of agrimony, male speedwell, comfrey, St. John's wort; collyria of chalk, pompholix, bole armenian, myrrh, mastic, oil of eggs, white of eggs---Infuse in Spanish wine, cloves, aloes, crocus metallorum, camphire, and tutty, the dofe; a small drop instilled into the Eye three times a day will be fufficient.

From the minute division of these ulcers, as they are only descriptive of the appearances, there probably may not be derived any practical utility, as the degrees of difficulty in the cure, and and inconvenience afterwards, will arise only in proportion to their depth and extent.---But it is generally allowed that all ulcers of the Cornea and conjunctiva, tho' they originate from different causes, as wounds, burns, scrophula, lues venerea, &c. still they often happen from inflammation; in all cases of Ophthalmy the inflammation should be taken off as soon as possible to prevent this effect, and indeed when there are ulcerations nothing can be done in order to heal them before it is removed.

Before ulcers are formed, emollient applications may be of service; but afterwards, or when ulcers remain unattended with inflammatory appearances, they certainly do harm .- The chief object will be to clean the ulcers if foul, and hasten their healing by astringent applications .--Red precipitate, white vitriol, in thin liniments, or washes with white vitriol, and corrosive sublimate have been advised, but preparations of verdigrife feems to answer every purpose, and afterwards aftringent lotions of alum and oak bark. If fungous excrescences arise, small ones may be subdued with escharotics, the best of which is lapis infernalis; if large, the knife may be fafely used in the hands of a skilful surgeon. During my attendance at the Medical Afylum, the good effects of the aqua sapphirina in these cases hath often been manifested in scrophulous patients;

patients. A boy of nine years of age, of a scrophulous habit, had an ulcer in the Cornea, attended with a strong inflammation, the glands in his neck were much enlarged, his upper lip, and alæ nasi much swelled, his abdomen tumid, his pulse extremely quick, and febrile heat and thirst generally encreased towards evening. The primæ viæ were first cleared by repeated doses of sal. polychresticus and rhubarb-The inflammation subdued by local bleeding with sedative fomentations, cataplasms, and the use of tinctura thebaica; taking at the same time small doses of hemlock and calomel, with a decoction of bark, and afterwards aq. sapphirina being dropt into the Eye twice aday, the corneal ulcer became perfectly healed, notwithstanding his other scrophulous appearances did not give way to the general mode of treatment.----By the use of tinctura thebaica, and afterwards the application of aqua sapphirina, a boy, a patient of Mr. Freaes in Tottenham-Court-Road, who had a large corneal ulcer after the small-pox, was perfectly cured; purgatives only being administered occasionally---Indeed so often has the good effect of this mode appeared to me, that I am persuaded in all common cases it will be found sufficient, where there is no idiofyncrafy in the constitution, which may prevent the natural action of these applications.

PLENCK divides this complaint, arising in the furface of the Cornea from venereal virus, into two Species.

I. AN ULCER OF THE EYE FROM VENEREAL VIRUS.

As from a gonorrhoic, or syphilitic Ophthalmy having preceded, or being present; which he cures by the internal use of his mercurial gummous pill, and by the external application of his ophthalmic balsam, and a dilute solution of corrosive sublimate with honey of roses.

2. AN ULCER FROM A LATENT, OR UNIVER-SAL LUES.

In each case ulcers of the Cornea sometimes appear, to which he applies the remedies before described.

OPHTHALMY from a CORNEAL FISTULA.

This is visible to the fight, by a foramen perforating the Cornea in a line either directly or sinuously with callous edges; by a subsiding of the Eye, because of the continued efflux of the aqueous humor; an obscurity of fight, and redness of the Eyes from the falling in of pus.

This

<sup>2.</sup> Ophthalmia a Fistula corneæ.—Dr. MAU-CHARTII Dissert. de Corneæ Fistula.

This is cured by a chirurgical operation; take rose water in which a piece of heated tutty has been extinguished, let a pledget be soaked in this liquor, with which let the Eye be somented. A blister should be applied to the back; the sound Eye bound up for some days, the patient should use ptisan for those days, and lie in a supine posture.—

Thus the Eye will be filled with the aqueous humor; a needle cutting at both edges should be turned round within the sistula, to destroy the callous edges, and to renew the wound, i. e. make it a recent one. A small drop of balsam should be dropt into it, and the Eye bound down.

3. Ophthalmia ab Ungue .-- MAUCHARTII. A.

Ungueous, or NAIL-LIKE OPHTHALMY.

This is an abscess between the lamellæ of the Cornea.

It begins with a chemofis, which is attended with fevere acute head-ach, watchings, a weight above the orbit; fever, pulfation, and caligo, on account of the fever and head-ach it differs from the leucoma.

The speck appears rather round, white, eminent, if the pus lodges under the epidermis of the Cornea; in which case the disease is of trisling moment---but if it should be formed amongst the deeper seated lamellæ of the Cornea, its nature is more severe and dangerous; if in the albuginea the tumor alone is the indication of its presence.

The paracentifis, or eduction of pus by the lancet is here required---but the pus is often poured into the chamber of the Eye, hence the hypopyum of MAUCHARTIUS.—See caligo hypoæma.

Cullen arranges under the symptomatic Ophthalmy, from a disease of the Eye itself, these three Species.

## §. 2.

#### LEUCOMA.

LEUCOMY, OF CORNEAL SPECK.

This is a spot or speck of the Cornea, where that membrane grows either white, yellowish, or loses its transparency; and this arises from the fluids, losing their natural specific gravity; hence comes on an opacity, which, according to the thickness of the

K 2

lamellæ

lamellæ of the Cornea, sometimes restects all the rays confused, hence its whiteness; sometimes transmits only a few, hence its grey color, similar to that of a cloud.

4. Leucoma nephelium. — Nebula, with the Latins; Achlys and Ægys, of the Greeks; amongst the French, Ombrage, Nuage. L.

NEBULOUS, OF CLOUDY CORNEAL SPECK.

This is a speck of the Cornea somewhat pellucid, which occasions objects to appear, as if seen through smoke, or a cloud, and hence are more obscured. By inspection obliquely it is discovered to be different from the opacity of the aqueous humor accompanying diseases called Mydriasis, Cataracta lactea rupta---Cataractum crystallinum. It is divided into Achlys and Ægis, according to the degree of obscurity. It differs from an Albugo inasmuch as an Albugo is altogether opaque---white, of the color of chalk, and sometimes a little eminent.

This Species often arises from a variolous Ophthalmy, or moist one; also from too great great heat, as burning. The Cornea is rendered opaque by acid spirits, as vitriol or nitre poured on it; also by alkalines, as oil of tartar; by the more acrid collyriums, yet not by spirit of wine, which renders the unguarded lymph opaque.

The nephelium is excited by art, and is useful in mydriasis, where there is an internal Ophthalmy, where the rays of light are to be driven back least they should offend the retina.

The nephelium is much more eafily cured than the albugo, by similar, though milder remedies being applied. In infants, as their years increase, it often vanishes spontaneously. The juice of pimpernel, either the blue or purple, dropt into the Eye twice a day, for the space of a week; the juice of the common star thistle, and blue bottle, are useful; sugar-candy powdered is often sufficient; emetic wine, which is the least hurtful, may, with advantage, be dropt into the Eye; the vapor of aniseed or fennel seed water are also of service.

5. Leucoma Albugo. By the French called, Tache blanch; if it shines, by the Latins, Margaritta; by the Greeks, Paralampsis; amongst the French, Perle. L.

ALBUGINOUS, OF PEARLY CORNEAL SPECK.

This Macula, or Speck, is altogether opaque, white, of a cretaceous color, and fometimes a little prominent. It is distinguished into Albugo, which is red round its margin, painful, and therefore inflamed; and into that Albugo, which is rather eminent, of the color of chalk, and free from inflammation.

It follows the principles of nephelium, but they are more violent, as Ophthalmy, chemosis, hyposphagma, burning from lime, &c. It brings on a most obscure Caligo: when it covers the middle of the Cornea it is thick, and very white; it is seldom cured if of long standing—and care must be taken not to consound it with the onyx, cataract, hypopyon, or empyess.

It is cured, according to St. YVES, by beginning with the inflammation which accompanies it. Some will have the common leucoma pared, which is only proper in a pannus; but in a leucoma attended with much moifture, fumigations of aloes, myrrh, mastick, and juniper berries, thrown upon burning coals, and the tepid smoke conveyed to the Eye by a proper funnel, are advised to be repeated; or, which is safer, and recommended by MAUCHARTIUS, are the vapors of these medicines in decoction: also of hysfop, mother of thyme, origanum, rosemary, cossee, valerian, sennel seeds boiled with a little camphire in wine or water, also a collyrium or lotion, prepared from this decoction is safer.

The dry collyria are made of tutty, calcined oister shells, scuttlesish bone, slorentine orrice, whitest agaric, the tartar of chamber-pots, in very subtle powder; the more acrid are fish, or bull's gall, viper's fat, crocus metallorum reduced to an impalpable powder, oil of box-wood, or paper, which may be sweetened with a mixture of honey; verdigrise is condemned; but the weakest solution of these in a large quantity of water is often used; and by the same rule the juice

of

of eye-bright, and the greater celandine may be applied. BOERHAAVE prescribed the repeated use of calomel and cathartics, to dissolve the lymph and free the Cornea from leucoma.

6. Leucoma Cicatrix.--- By the Greeks called Oule; by the French, Cicatrice.

CORNEAL SPECK, from a CICATRIX or SCAR.

This arises from the healing of a wound, ulcer, or abscess of the Cornea; a simple wound seldom leaves any traces of a cicatrix. Those which succeed to a wound, commonly disappear spontaneously, as may be seen in those who have undergone the operation of extraction of the cataract by the circular incision of the Cornea; but it is much otherwise in an ulcer and onyx; for on account of the preceding inflammation and acrimony of the pus, an obstinate and troublesome white speck arises.

The cure should be attempted, which tho' is rarely successful, by the same remedies as in the albugo; but a cicatrix of the Cornea threa-

threatening to commence from the smallpox may be prevented, if an infusion of saffron with a little camphire be dropt every day into the Eyes.

## 7. Leucoma Gerontoxon.

SENIL-ARCUATED CORNEAL SPECK.

This is a circular speck, for the most part, very white, and often apparent in the circumference of the Cornea, and therefore the least hurtful to vision, in whose centre is a little pellucid circle: it derives its origin from a pustule in the lower laminæ of the Cornea, ruptured within, whose periphery is opaque; such a one Sauvages has seen, and such is often the cause of the ceratocele, or hernia of the Cornea.—This Species is esteemed incurable.

MEAD, in speaking of the albugo, advises glass very finely powdered, to which is added an equal quantity of sugar-candy, and levigated to an impalpable powder, to be put into the Eye every day; this, he says, absterges, and wears off the spot by its inciding quality; or having it pared

pared by a skilful surgeon every day; several instances he has seen of its being cured by the first method, only one or two by the last.

Mr. Bell, after giving his opinion of the cause of leucomata, which he considers as almost always arifing from inflammation, divides them into two Species; One of which appears prominent above the cornea, and requires external applications for the cure; the other is attended with no fuch phoenomenon, but seems diffused within the lamina of that membrane, making, as it were, a part of the Eye. In the last Species, external remedies are of no use, except in case of an attendant Ophthalmy; a gentle but long continued mercurial course he confiders as proper, with fmart purgatives occasionally administered to promote absorption, and a seton in the neck. In the former he presses the use of the knife; but as that may not always be permitted, he has recourse to escharotics, the inflammation first taken off, should there be any. What he recommends is red precipitate, or verdigrife finely levigated, mixed with three or four parts of fine fugar; calcined alum and white vitriol, united with a proper proportion of fugar, or with egg shells in fine powder.

Or the same formed into thin ointments with hog's lard, or washes of a solution of verdigrise, or white vitriol, or corrosive sublimate much diluted. The The application of the powder or ointment, he advises night and morning, and the lotions to be used two or three times a day, at the same time; and these by a prudent and long continued use, are likely to become successful. See his Surgery, Vol. III.

PLENCK, of the VENEREAL SPECK of the Cornea, fays,

It is an alteration of color in the Cornea from venereal virus.—Sometimes a part only of the Cornea, fometimes the whole Cornea is obfoured. He divides this into two species.

I. A SPECK OF THE EYE FROM THE VENE-REAL DISEASE PRECEDING; AS SUCCEEDING TO A SYPHILITIC OPHTHALMY, LIPPITUDE, OR ULCER.

The cure requires internally the use of the mercurial gummous pill; externally the speck, or obscured Cornea, should be touched twice a day, by means of a small hair pencil, with a solution of corrosive sublimate; afterwards of his red ophthalmic ointment, a portion as large as a lintel should be applied three times a day.

2d. A SPECK ON THE CORNEA OF NEW-BORN INFANTS FROM A LATENT LUES.

Infants newly born, whose mothers had been afflicted with the venereal leucorrhæa, are often attacked with cloudiness of the cornea, and atrophy of the Eye.

The

The same medicines for the cure are recommended as in the former Species, which tried in the beginning of the disease, are often serviceable.—See Caligo venerea.

It should have been observed, that the leucomata often affect the membrana albuginea, but seldom are of consequence enough to require any affistance; and indeed when small, upon the cornea, and not detrimental to vision, it is better to avoid any applications to them, for fear of bringing on disagreeable consequences.

## §. 3.

CALIGO.—Obscurcissement de la Vûë.

A CALIGO, OF PARTIAL, OF TOTAL OB-SCURITY OF VISION.

This is a disease whose principal symptom is a partial diminution, or total obstruction of Vision, from some opaque obstacle in the Eye, placed before the pupil.

In an amblyopy and amaurofy there is no opacity. In a cataract the opacity is beyond the pupil.

The obstacles intercepting the fight in a Caligo, are either diseases of what are contained

or of the parts containing them, as of the Cornea, Eye-lids.

Many things are necessary to produce diftinct vision; First, that the rays issued from the object to be seen should pass through the Eye as far as the retina, which obstructing bodies prevent. Secondly, that the terminations of the rays of light emitted from the same point of the object should unite in the fame point, not in the different points of the retina, not beyond or before the retina, as often happens in an amblyopy. Thirdly, that both Eyes should act together, and direct their optic axis to the same point of the object, which is looked at, which cannot happen in fquinting, and is very difficult in fome species of Caligo; therefore a Caligo is hurtful to vision, and to the view of objects-for that is a direction of both the optic axis towards the object to be feen.

Opacity is that disposition of bodies, by which it happens that they either must reflect all the rays, from whence the whitest bodies are opaque; or that they may absorb the rays, and not transmit them, whence bodies

bodies formed of lamellæ separately pellucid, if they should become thicker, scarce preserve their transparency.

Opacity depends upon the repeated refractions of the rays into different plagæ, or broad expansions, and these reiterated refractions happen as often as the substance or laminæ of which bodies are composed are heterogeneous, or of a different specific gravity, as Newton demonstrates.

The Cornea is divided into a greater number of lamellæ, in proportion to the greater industry of the anatomist; it is very probable that the lymphatic sluid, with which it is imbued, may be of the same specific gravity with its lamellæ; but if from the action of increased heat the lymph should become a little more rare, the solid part not becoming rare in an equal degree, opacity will be the consequence; and that opacity will be greater in proportion as the spot is more white, and the membrane more thickened.

Those who labor under a Caligo, see more obscurely in a weaker light, than that which is more strong: for by how much greater greater is the brightness by so much greater is the number of the rays of light; and therefore since from a greater number of the rays striking the Cornea, more of them enter the interior parts of the Eye, than when the number is less, it may happen that those who cannot see in a weak light, may, in a stronger, see sufficiently; and therefore that a caliginous man may be a hemeralops, as he may require meridian light for vision, and may become blind in twilight.

If a speck, or obstacle obstructing the light, should be placed in the direction of the pupil, then the patient will only see objects laterally, situated towards either angle of the Eye, because the edges of the palpebræ in each angle recede more from the pupil, than either above or below; therefore, by this aperture the rays may have access to the Eye, when scarce any can have access to that organ in its superior or inferior part; if in like manner there shall be an opaque spot from one or other of the angles of the Eye, the axis of either Eye will not be able to be directed towards that place as much as is necessary

ceffary for a proper view, hence fquinting will arife.

Cullen arranges this under his class Locales, and order Dysæsthesiæ—Sensations depraved or obliterated from a defect of the external organs.

# 8. Caligo a Leucomate. Tache de la Cornée. Taye. L.

CALIGO from a CORNEAL SPECK.

This is a fpot often white, and at least pellucid, in the Cornea, whence it differs from Nephelium.—

It is called Paralampsis, or Margaretta a speck, whitish-blue, thick, opaque, and shining.

The Albugo is properly a Leucoma, if white, prominent, of the color of chalk, inflamed often at the margin, and painful.

Gerontoxon Mauchartii, seu Arcus senilis, is a white, or brown speck, arcuated in the edge of the Cornea, common to old men, but scarce detrimental to the sight.

Oule,

Oule, or Cicatrix, is a spot of the Cornea from a cicatrix.

Albugo of D. St. Yves, is an Oph-thalmy.

The glaucosis of Ætius is a white opaque spot of the whole Cornea without inflammation.

This differs from exulceration, from its want of cavity, pus, severe pain, &c.

If there should be pain, heat, dryness, bleeding being premised, emollient somentations, anodynes of saffron, white of egg, &c. are useful.

In leucoma attended with much humidity, fumigations of myrrh, aloes, juniper berries, cast upon burning coals, the smoke conveyed to the Eye from some distance, then the Ung. e Tutiâ è Gum Arabico may be of advantage.

Licking with the tongue, aniseeds, fennel seeds, and sugar first chewed, to which a little vitriol is added, is recommended.

Vapors from hyssop, chervil, greater celandine, mother of thyme, origanum, rosewater, juniper berries, coffee, valerian, mastick, camphire boiled in water, wine, aqua

L Calcis,

Calcis, or an ophthalmic lotion; with a decoction of these, the Eye may be washed.

Dry collyria are of fugar, egg-shells calcined, scuttle-fish bone, Florentine orrice, white agaric, the fur of chamber-pots reduced to powder.

Acrids are camphire, fish or bull's gall, viper's fat, crocus metallorum, juice of celandine, or oil of box-wood, paper, or linen, mixed with honey—but pure vitriol, verdigrise, and alum, must be avoided.

BOERHAAVE gave repeated cathartics of calomel and diagrydium as gr. vj., to be taken in pap-meat, to an infant.

9. Caligo a Nephelio.—Nuage de la Cornée. L.

CALIGO from CORNEAL OPACITY.

A fubpellucid speck in the Cornea is by the Latins called Nebula; by the Greeks, Nephelium; Achlys, and Ægis—the differences of which may be seen in MAU-CHARTIUS de macul. Corneæ dissertatio.

If the cloud depends upon a small drop of water collected between the lamellæ of the Cornea.

Cornea, it may be distinguished by the assistance of a good magnifying glass, and may be evacuated by the puncture of a needle; that cloud is called aquula—bydasis.

If from opaque lymph, as happens after the small-pox, Ophthalmy, that speck is in time spontaneously resolved; or by the use of powdered sugar; tutty reduced to powder as sine as slour, a little vitriol being added, or with sennel water, the expressed juice of pimpernel, emetic wine, &c. or the remedies for leucoma.

Two cases of glaucosis are recited by VAN SWIETEN, cured by the use of corrolive sublimate; in one the Cornea had been opaque for many years, and became perfectly pellucid, in the other both the Corneæ of the Eyes were entirely opaque from an Ophthalmy badly cured, and also each of the crystalline lentes had more opacity than natural; he continued the use of corrofive fublimate for eighteen months with the most fortunate success; when the inflammation of the Eyes now and then returned, he prefcribed bleeding, baths, and purgatives for a week or two, omitting the use of the sublimate, and continually fomented the Eyes with a collyrium made of sp. of sal ammoniac perfectly L 2 faturated

faturated with distilled rose water; he also adds, that the constitution can bear this remedy for a long time without any injury; for the youth, who made use of it in the second case, enjoyed uninterrupted health, nor was there even the least suspicion of his being affected with the lues venerea—Med. Obser. London.

An opacity of the Cornea and muddiness of the humors are spoken of in the same collection from the bite of a mad dog.

## 9. Caligo a Ceratocele—Staphyloma, Gunzu Dissertatio.

Caligo from a corneal Hernia is a

very small tumor of the Cornea, like the head of a pin, which examined in a right line is pellucid in the middle, but appears rather obscure and roundish; examined obliquely it is opaque, and resembles a small ring opaque in its periphery.—It arises from an erosion or ulceration of a punctum in the interior tunic of the Cornea, whence the external lamina pressed out by the aqueous humor becomes a little prominent.

This

This is cured by topical aftringents, or pressure from a plate of thin lead.

10. Caligo venerea. — Quelmate Panegyris.

#### VENERBAL CALIGO.

This is a blindness of new-born infants, whose mother has been afflicted with the Gonorrhæa virulenta.—This is a Caligo with atrophy of the Eye, and obliteration of the Cornea.—I saw many of these offered to the celebrated TAYLOR, and all of them incurable.

Locker says—The albugo—pannus; opacity of the Cornea, and venereal cataract, now and then disappear from the use of the antivenereal spirit—In these he applied soap in the ophthalmic water, with a little honey of roses; or, in cases of great opacity, mercurius dulcis with sugar is sprinkled upon them twice a day.—See the Note upon Leucoma, &c. Plenck, Species 2d.

Defectu Humoris aquei. Praxis. L.

CALIGO from CORNEAL CORRUGATION.

This is a subsiding, or corrugation of the Cornea—A wound being made through the Cornea, the aqueous humor flows out, but is renewed within a day.—In a fistula it spontaneously passes off continually, when the Cornea grows yellow, and undulated, hence less pellucid. Sometimes it happens not from accident, or external injuries, as in old age, and then it is incurable; sometimes it is exhausted, as in the tritæophya, or continued quartan, causus, or other acute severs—and then the sever being cured the Caligo disappears.

If it depends on dryness and heat, it is cured by emollient fomentations, by bathing the Eye, or ophthalmic lotions.

AMBLYOPIA.—Visus debilis. ÆTII; Visûs Hebetudo, BOERHAAVE de Morbis Oculorum; Ambliopie, Vuë confuse; Foiblesse de la Vuë.

AMBLYOPY—DEBILITY of SIGHT, ABSO-LUTE OF RELATIVE, With OCULAR IN-OPACITY.

A disease, the principal symptom of which is, a debility of sight, either absolute, or relative, without any opacity of the Cornea, or interior part of the Eye.

An obscurity, or confusion of vision is called relative, when an object cannot be seen at its usual distances, situations, and in a common light, but only in some. Thus myopic, or short-sighted men see objects placed at a distance confusedly; those very near, distinctly:—therefore they are amblyopic with respect to distant objects.

Clear vision, is that degree which is sufficient for discovering the whole object, and distinguishing it from others—Obscure, that which is not adequate to these purposes.

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Distinct

Distinct vision, is that which is capable of knowing and diffinguishing the parts of objects, and the particles of those parts;the contrary, is confused. If in a beginning cataract, any one should see this paper in fuch a manner that it can be distinguished from any other paper, or from the table, and known by the person that it is paper, he fees it clearly—but if he cannot distinguish the black lines written upon it, or knows not the characters which are parts of those lines, or the component parts of each character; nor can distinguish one letter, except on account of the place which it occupies, from another, he has a clear but confused vision-but he who knows and can distinguish many, and the smaller parts as well of lines as letters, and their particles, he has a distinct vision, and so much the more distinct is that vision, by how much greater is the distance from the Eyes, and smaller the particles which he distinguishes by a weaker light.

The Horopter, or limits of distinct vision, are four or five inches for near objects; four-teen feet for remote objects of that magni-

tude which is generally bestowed on large letters;—by how much larger are the objects, and brighter the light, by so much greater is the distance at which they may be seen.

The Amblyopia differs from an Amaurofis, because in the latter the fight is lost altogether, and the pupil becomes immoveable; but if one Eye be perfect, the pupil of the blind Eye will move with that of the sound one;—but the healthful Eye being closed, the pupil of the blind Eye loses all motion.

Besides, in relative Amblyopia, the Eye sees objects clearly and distinctly under certain circumstances, as myopic, or short-sighted men, see things which are situated close to them; in an Amaurosis not any thing is perceived.

The cause of the Amblyopia is the confusion of the image painted upon the retina
—but the confusion is present in the image,
as often as the fasciculi of the rays coming
from one point of the object are not united
together in one on the retina, and in the
same point, but in different points; or when
many fasciculi from different points of the
objects

objects fend out their rays together into one point of the image—fuch a confusion takes place in myopia and presbytia.

A confusion also arises from obscurity as in amblyopia, for seeing that no image can be distinct, unless it is clear, every obscure image is necessarily confused. It is obscure as often as there is not a sufficient clearness, or a proper quantity of rays on account of the confusion of the Eyes, or their force not strong enough upon the retina, because of the diminished sensibility of that membrane.

Cullen arranges this with Caligo, which fee.

Juvenum; PLATERI; among the French Vuë. Courte, Myopie.

PRESBYTAL, OF LONG-SIGHTED AM-BLYOPY.

They are called Myopes who see things at a distance consusedly; but near objects distinctly. It is called Myopia, as having a sight like a mouse.

They are most subject to this disease, who examine minute objects—as gold-smiths, watch-makers, engravers, miniature painters, whose cornea is very convex; or in respect to the globe of the Eye, is the part of a much less sphere.

The cause of this is the conjunction of the rays of light before they reach the retina, or a coition or union of the rays behind the crystalline lens.

Therefore they unite behind the lens before they reach the retina-either first, because the refractive power of the aqueous or crystalline humor is greater; or, secondly, because the surface of the cornea and crystalline lens are too convex; or, thirdly, the retina is removed too far from the lens; or, fourthly, the object is too far removed; or, fifthly, because the pupil is too open, or rather, to fpeak more properly,-a myopia s in a compound ratio of the following conditions; viz. of the refractive power of the aqueous, and crystalline humor; of the distance of the cornea and crystalline lens from the retina; of the distance of objects, and lastly of the aperture of the pupil. The

The curative indication is, one palliative, the other radical.—The palliative respects the cause of the disease, the radical the principle.—Whatever may be the principle is often unknown. - The cause is the union of the rays of light before they strike the retina;—the remedy therefore is to retard their coition before they reach that membrane.-Experience teaches, and dioptrics demonstrate to us, that a glass, one side concave, or both fides, held to the Eye, the rays proceeding from distant objects, and thence mutually parallel to each other, fall upon the Eye mutually diverging; but at that time they fall, spread abroad as such distances as from near objects, in which case we find from experience the focus diverges; therefore if glasses of a concavity, proportionate to the proper distance from the Eye, be applied, the rays of remote objects falling upon the Eye will be united on the retina itself; inasmuch, as distant objects will be seen distinctly.

The antecedent principle of a myopy is, first,—A convexity of the Cornea, or a convexity of one or both the surfaces of the crystalline

crystalline lens-which last diseases afford no certain symptom of their presence, but the convexity of the Cornea; besides, that it is often confounded with a prominence of the Eye, is not a certain fign, fo long as the respective situation of the retina is unknown -but it cannot be known by any means;therefore, from these principia no certain indications can be taken, nor can any remedy be exhibited :- for as it is possible that the difease may depend on this principle alone, fo is it possible that it may depend on others, which require various, nay, fometimes remedies of opposite powers; -therefore in an uncertain state of things, as the danger of hurting may be adequate to the hope of affifting, it is better to avoid exhibiting any medicine pointed out by this principle.

Another antecedent principle of this myopy, is a spasmodic contraction, or even a contracture \* of the oblique muscles of the Eye; nay, near some of the recti them-

selves;

<sup>\*</sup> Immobility coming on gradually from the rigidity of the parts, or at least remaining constant.

felves; which some suppose to be the antagonists of the oblique; but it is very justly doubted whether a constant myopy can depend upon such a principle, or whether upon either of these:—however, emollient somentations, anodynes are scarce of any use—therefore the only hope is from the prophylactic remedy;—let the same be said of the opinion of the celebrated De Chales, Potterfield, Pemberton, and others.

If the principles marked by these should require emollients and relaxants; from another cause, there is fear least these medicines, should they answer any purpose, the retinal might be relaxed, and thus the sight be rendered more obscure; it would therefore be more satisfactory to refrain from their use.

The particular mode of cure, requires, first, that the degree of the disease may be accurately known; secondly, That a glass of proper concavity agreeing with this may be acquired, for medical art would not be of any service, unless dioptrics lent their aid.

The fymptoms of myopy, although the disease appears to be the most simple, are numerous;

numerous; fo that it is generally known by the gesture, countenance, and act of writing. Thus myopic, or short-fighted men, not only move any thing they read close to their nofe, but look at it with eyes awry, and with one eye, to which the paper is nearest. They therefore like small characters, as well in writing as reading, that they may not move the head continually in following the lines. They require also a weak light for their pupils are wide; their vision is dark, or confused, in viewing objects above a foot's distance, which, as they may be much more numerous than what are nearer, therefore the pupil accustoms itself to this dilation, from which it cannot defift.

If myopic men look through a small perforation in paper, they see remote objects more distinctly; winking the Eye-lids gives commonly the same advantage, whence, in order to see remote objects, they almost close the palpebræ, not without a remarkable distortion of sace. Besides, myopic men look not at those with whom they are conversing, and indeed they would look in vain, for they cannot from the eyes, or sace,

or nod, of their affociates, with whom they hold converse, conceive more clearly or fully what is said, as the ætoptes can.—But what on this subject wants to be understood, when the Eyes look downwards, challenges greater attention; because they see not things standing around them, running against objects opposite to them they hurt themselves;—also they oftener see objects multiplied, as we shall see when speaking of suffusion—when in the night they look at candles far removed, they seem to perceive a large circular slame, not conical, and many other things are recited by the learned De Chales.

But amongst these symptoms there is one from whence the best judgment may be formed of myopy, or short-sightedness; when a man through a double foramen in paper sees two slames of a candle, if the singer is moved to the right eye, and the right image of the slame vanishes, the man is myopic; if the left, he labours under that Species termed presbyta.

Presbyopia proximorum.—Presbytia, aut Presbyopia vulgarly; from the Greek, Presbys. Senex; amongst the Latins, Visus senilis; amongst the French, Vüe longue. L.

MYOPIC, OF SHORT-SIGHTED AMBLYOPY.

This is that Species of vision, by which men fee things contiguous confusedly—but remote objects more distinctly.

As old women in threading a needle, remove the thread and needle at a great diftance—so old men place their books above eight inches from their Eyes, that they may read more distinctly.

From the preceding theory this is readily intelligible.—The cause is a later conjunction of the rays coming from near objects, which conjunction is formed beyond the retina.

The principia are, 1st. from a smaller convexity of the Cornea, and each or both superficies of the crystalline lens, so that this curvatue is a portion of a larger sphere.—Secondly, too great a distance of the Cornea, or crystalline lens, or both, from the retina.—

Thirdly, the refractive power of the pellucid bodies of the Eye less than usual.—Fourthly, too great a proximity of objects.—Fifthly, a straitness of the pupil, which the Greeks

call phthisis.

It happens from the concourse of each, and a more powerful one of all these principles conjunctively, that the rays proceeding from near objects, must be united more slowly, and push their focus beyond the retina, from whence the vision cannot be distinct; -for the luminous pyramid is cut off by the retina, the rays not yet collected into a conical apex; therefore every point of the object paints a spot upon the retina, not otherwife than with myopic men-with this only difference, that the speck arises from the rays not having yet coalesced; in myopics having already coalesced, and again expanded .-- Men who are most afflicted with the presbyta, see objects distinctly at the distance of three feet, and those which are nearer confusedly .- Those who are afflicted in a smaller degree, place the books which they read at a foot's, or at least beyond eight inches distance. If objects should be situated beyond

beyond the distance of their distinct vision; the presbytæ cannot distinguish them, for it is not fufficient for the objects being diftinctly feen, that the rays emitted from them should exactly unite upon the retina, because amongst the presbytæ it happens from objects even far removed-but it is required that the quantity of rays issuing from the object should be so much the greater by how much the fenfibility of the retina is less .--But in old men the fenfibility of the retina is a little less than among younger-and if objects should be placed too far off, they fend a leffer number of rays into the Eye, therefore not sufficient for clear vision. The beams which irradiate from objects upon a given furface, are fo much the fewer, by how much the square of the distance of the object is greater: thus from two or three feet, four times; and nine times fewer rays are emitted than from one foot; fo from four feet the same object sends a number of rays less almost by half, than from the diftance of three.

If the straitness of the pupil should be the principle of prebyopia, as it frequently hap-

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pens

pens, they receive a smaller share of rays from objects in proportion as the square of the diameter of the pupil is less; so that if the diameter of the pupil should be less in a double ratio, and at the same time the distance of the object should in the same degree be greater, the number of the rays entering the pupil will be fixteen times less. Therefore they are forced to remove objects to a certain distance, not beyond, in order to prevent vision from becoming obscure-not within, lest the rays should unite more beyond the retina, and then they would fee confusedly. Inasmuch as presbytæ see only by rays parallel, or converging, falling upon the cornea, not in the least by those which diverge; but by how much nearer the object is to the Eye, by so much more do the rays become diverging, and at the same time copious; for this reason, because the rays from proximate objects enter the Eye in greater crouds, than from remote ones: therefore the clearness of the image does not increase, at least in the same proportion; for in that proportion in which the object is nearer, in the same proportion the image diffused thro' the

the circle of the retina, becomes larger:—
therefore from thence has a greater number
of parts to be illuminated; but not from
thence are all the points more illuminated—
because should the object be nearer, the focus
is removed too far beyond the retina, therefore vision becomes more confused.

Presbytæ, therefore, that they may see objects distinctly, want a great light; on the contrary, myopics require a weak light, that they may read; forasmuch as the presbytæ have the retina more rigid from age, the pupil straiter, objects more remote, all which diminish clearness of vision; therefore these desects ought to be compensated by a greater splendor, or illumination of the object.

If presbytæ would look at any very lucid object, viz. the flame of a candle through a hole in paper, that will appear to them enlarged—or as in the hair of the head radiated, and rather round—but that object is represented in the retina by a spot larger than the real image would be, if the focus should fall precisely upon the retina; there-

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fore the object must be seen enlarged,—Besides, as splendid objects, viz. white, appear
larger upon an obscure basis, than black
ones upon a white, as we know from experience; since a splendid object may be placed
upon it, and the Eye become a camera
obscura, again for that reason it will be seen
of greater extent.

But now of the rays delineating the object, those which fall into the edge of the crystalline lens have the socus a little less removed than those which are parallel to the optic axis; therefore they delineate the object a little more vivid in the middle of the spot; the rest then appear more confusedly, and therefore resemble a circle more thin, by which the object is surrounded.

Concave glasses are most agreeable to the presbytæ, for they see remote objects distinctly—near ones confusedly.—Wherefore seeing that the convex lenses so refract the rays coming from a neighbouring point, as if they came from one at a distance, convex glasses are useful to presbytæ—but from a parity of reason, the more convex glasses assist those who are thus afflicted

in a greater degree—as their convexity is the portion of a smaller sphere.

But if, as it sometimes happens, the Presbyopia should originate from a visible fault of the Eye, and that a recent one, then remedies for a radical cure may be indicated from the foregoing theory.

1.4. Amblyopia luscorum.—Lusciositas, or Luscitas, Boerhaave; amongst the French, Vûë louche.

AMBLYOPY, from Luscity, or oblique Vision.

They are called Lusci who see objects brought directly before their eyes confusedly, but offered obliquely, distinctly.

In practice, Luscity is commonly confounded with Strabism—but the strabones, or those who squint, see an object with one eye distinctly which is offered in a direct line before the eyes.—But the Lusci incline the face and eye itself, with which they look to either side, that they may see the object more distinctly. It is called direct vision when a line, extended from the object to the

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face of the spectator is perpendicular to the plane joining both pupils, otherwise the sight is oblique. When we look at an object we always turn the face so towards it, that the sight may be direct, and we so direct both eyes together, that the optic axis may fall upon the middle of the object—but the Luscus, whilst he looks at an object, suppose to the right hand, he turns his eye and face to the left—a man who squints, called Strabo, indeed turns one eye and his face to the object which he beholds, but not the other eye, which wanders indiscriminately.

Direct vision is clearer than the oblique, because in direct vision a greater number of rays enter the pupil than in oblique, as proved by geometry. Also direct vision is more distinct, because through the means of the rays of the uvea being perpendicular, it will more easily conceive the distance, and magnitude of the object, than by being oblique; add, that in a sound state, the optic point, or the place of the retina, directly opposite the pupil, enjoys more nervous silaments, and more exquisite sensibility than the sides; and lastly, the rays falling obliquely upon the

the pupil have their focus more diffused in the sides of the retina, than those which pass directly to the optic point.

Whence it happens that in reading a book, we shall run over every word with our eyes; for we see more distinctly those which are offered to our eyes in a right line, but more confusedly those which are situated obliquely.

Luscity therefore happens, either, first, because the pupil is placed obliquely, so that it receives more oblique than direct rays; or, secondly, because the convexity of the Cornea is altered, or its transparency, so that more rays may be admitted from either side than if they should penetrate in direct lines; or, thirdly, because the crystalline lens is placed obliquely, and its axis not the same with that of the eye; or, sourthly, because the point is deprived of its natural sensibility, whence we are forced to direct the eyes elsewhere, that we may see more acutely.

From these principles, sometimes an Anchy. loblepharon, or partial adhesion of the palpebræ, synechia, as well as transverse position of

pupil, which furgery alone can cure, may produce a Luscity.—Various species of strabism often are combined with it; if it should happen from a leucoma covering part of the Eye, from a pannus, or pterygium, rendering the Cornea here and there opaque, remedies adapted to these affections are to be exhibited.

If Luscity depends upon strabism, we must use spectacles whose glasses have unequal latitude—the glass should be straiter which is fixed before the eye that squints; adly, If a strabismus depends upon this, that either Eye is weaker, the glass more strongly refracting should answer to that which is weakest; adly, If from the fault of the muscles, spectacles commonly called Besicles, Masques è touchette, are to be used.

15. Amblyopia hydropthalmica. Hydropthalmia. Mydriasis with some; Hydropsie de l'œil. L.

HYDROPHTHALMIC AMBLYOPY.

This Amblyopy is joined with a protuberance of the Eye larger than usual.—In the the beginning the vision is myopic, as near objects can be seen sufficiently well, remote ones consusedly; but in the progress of the disease all things are perceived obscurely.

The volume of the Eye is larger, there is a turgid tension, a prominence of the Cornea, the iris lurks deep, the pupil is immoveable, sometimes broader, sometimes narrower; the vision in the beginning is good, or myopic; then more obscure, as in the amblyopia absoluta. The Cornea is often clouded, the aqueous humor turbid; a continual tensive pain about the forehead, with an hemicrania of the same side, a stupor of half the sace, and an emphysema of it, happen to some—also the tooth-ach, want of sleep, exophthalmy, epiphora, and extrover-sion of the palpebræ.

If the bulk of the vitreous humor has only encreased, the vitreous humor extube. rates on the crystalline lens, and creates an irregular, or occasional strabism.—Vision is diminished, the bulb of the Eye is indurated, an obtuse pain, often a synechia happens, or a consustion of the whole contents of the Eye;

but the pupil is less deep, than if the aqueous humor was superabundant.

The principle is an afflux of the aqueous or vitreous humor exceeding absorption; and a contractility of the Cornea, and sclerotica.

The curative indications are—First, That the congestion of the fluid may be averted by blisters, setons, cathartics, and diuretics; the humor eliminated in time by a paracentiss of the Eye, by a needle pushed into the Cornea, or albuginea;—Secondly, By the contractile power of the bulb of the Eye being encreased by tonics, and bags filled with aromatics.

This disease happens to melancholic people from some suppressed evacuation;— to gravid women also, which continues some months, then is often spontaneously cured.

It differs from an exophthalmy, concerning which see Ophthalmia. middle of the recius, but to one fide or other. .

Morbis Oculi, 175; POTTERFIELD; Edinburgh Essays, Tom. 3. L.

STRABISM, OF SQUINTING FROM OBLIQUE VISION.

He is called Luscus (looking askaunt, or aslant) who is forced to view objects with either Eye, not directly but obliquely, and with his Eyes a-wry, that he may see distinctly:—thus, therefore, if one Eye can only see obliquely, the other does not converge with it, hence a Strabismus. (See Amblyop. luscorum.)

Amblyop. lufcorum.)
This Lufcity, or of

This Luscity, or oblique vision, happens in the first place, because the middle of the retina has not its proper sensation, whence objects beheld in a right line, are seen obscurely, but, obliquely placed, distinctly.—
Hence we are obliged to squint from the fault of the retina, which is cured as a paralytic amaurosy.—Secondly, On account of the altered convexity of the Cornea, the refracted rays of light do not extend to the middle

middle of the retina, but to one side or other, and that error can scarce be corrected by art.—Thirdly, If from a contusion the crystalline lens should be obliquely placed, the same error will be the consequence, nor is more remediable.—Fourthly, I saw a girl whose pupil was not apparent, except towards the great canthus of the Eye, from a leucoma on the Cornea, whence she squinted.—This sault may be cured by resolvents, as ox gall, myrrh—Pottersield Edinb. Essays, Tom. 3. Page 289. & 295.

## SECTION THE FIFTH.

THE CHAMBERS OF THE EYE.

### §. I.

I. Caligo hypowma.——MAUCHARTIUS de Hypopio.—Hypochysis hæmatodes, of the Greeks.—Hypophthalmia. GALENI. B.

INTROCAMERAL SANGUINEOUS CALIGO.

THIS Species depends upon blood being poured within the chambers of the Eye.—Whether objects appear to them tinged red is very doubtful.

MAUCHARTIUS cured this by applying fmall bags of resolvent herbs, boiled in wine; then setting an issue with cautery in the arm; but bleeding must precede.

Though it is said to arise from various causes, it generally happens from external violence, if the portion is small, and vision is not hurt by it, there is no necessity for the interference of art, nor indeed can any thing be done when it occurs

occurs from a dissolved state of the blood, in some case of putrescency; but when this is not the case, and the assume of blood should be so large as to impede the sight, an aperture should be made in the most depending part of the Cornea, and the blood evacuated.

2. Caligo lactea.—Observ. de HAGUENOT, Ill. Prof. Medic. Monspel. B.

#### LACTEAL CALIGO.

Hypogala is a collection of milk in the foremost and middle chamber of the Eye, it is observed in women in child-bed, whose milk has receded.

This Caligo has an affinity with that which succeeds the operation of the lacteal, or purulent cataract, in which the matter finking down, vision is restored.

In hypopyon \* and empyefis pus is in both or either chamber, but on account of the

<sup>\*</sup> Though SAUVAGES here mentions the hypopyon, he takes no notice of it further in his work with regard to the description, for we do not find it under

the excruciating pain which supervenes, it appears to belong to Ophthalmy.

Agreeable to the form of the arrangement prescribed in this work, the aqueous humor should be here inserted; but as the diseases arising from any alteration of that sluid are generally combined with some affection of the vitreous humor, it hath been thought proper to class it under that section—which see.

under any of his Species of Ophthalmy; but it is evident he means the difease as described by HEIS-TER, not by St. Yves; nor does Mr. Bell adhere to the description here meant, as he considers it an affection of fome of the coats of the Eye, and not a collection of pus in the camera of the Eye. Instances of this hypopyon have been known cured by motion of the head agitated by the hands, or in carriages, and thefe as well as other means likely to produce reforption, ought therefore to be tried; if not fuccessful, recourse must be had to incision thro the Cornea to evacuate the matter.-Nor should that be deferred too long, leaft the Eye, by the Pus remaining, should be so injured, as to prove destructive to vision. See HEISTER's Surgery --- And BELL's on the Operation for the Hypoæma;

#### SECTION THE SIXTH.

THE UVEA, AND ITS MEMBRANE.

### §. I.

1. Ophthalmia a Synechia.—MAUCHARTII. Differtatio. V. D. DEMOURS Observ. Edinburgh Essays, Tom. 1. P. 90.

UVEA-CORNEAL OPHTHALMY.

THIS is a disease of the Eye in which the edge of the Uvea adheres to the Cornea, with a distortion of the pupil, an inability to bear the light, and nyctalopia.

The Uvea adheres to the Cornea as well because wounds, ulcers, or fistulas of the Cornea have preceded, and the aqueous humor being evacuated, the vitreous humor yielding to the pressure of the sclerotic membrane, pushes the Uvea externally, and thus the Uvea adheres to the Cornea, which it touches; as on account of the prone posture of the face, the Uvea lays upon the Cornea from its weight, particularly if the Eyes, being

being covered, as in Ophthalmy and Ulcer; the motion of the Uvea itself shall have ceased, which would have hindered this adhesion.

The fymptoms are in a great measure obvious to the eyes of the oculift, as the adhesion of the Uvea with the Cornea-from whence its immobility, at least in part of the adhesion, and also from the figure of the pupil being altered from circular to oval or pyriform-hence the impossibility of the pupil's contracting in the meridian light but the meridian light, if the pupil cannot lessen its volume by its contractile power, darkens the fight, hence Nyctalopia; -the retina alfo, from the rays of stronger light, feels pain; hence the inability of bearing their force, nay even hence arises pain. Objects very bright from this cause, appear expanded, and appendiculated; and from the fanguiferous vessels of the retina being turgid on account of the inflammation, the patients fee flies, and spider-webs playing before their eyes, as in the myoidal suffusion.

The cure is palliative, or radical. The radical cure is obtained by the needle being N 2 pushed

pushed into the anterior chamber. Mauchartius Dissert. de Synechiâ in Disputationibus chirurgicis Ill. Halleri.

The palliative is either the work of nature, which prevents the too great force of the rays of light, by an opaque speck on the Cornea following an ulcer; or the bufiness of art; which, where it cannot fupply any other affistance, burns a fimilar speck on the Cornea with the lapis infernalis. -But it is more eligible for the beams of light to be moderated by the use of colored glass, green or blue, or by metallic little cups, having a finall hole perforated in the centre, to be carried in the hand, and used in mid-day. -After the operation of the fynechia, the patient must lay supine for some days, and often expose his Eyes to the light, that a fresh adhesion may be prevented.

# 2. Ophthalmia Uvea.

#### UVEAL OPHTHALMY.

This very often happens from the cryftalline lens being removed from its fituation in a moveable cataract, and having with difficulty difficulty entered the anterior cavity of the Eye;—whence it is known by the symptoms of a moveable cataract, by a distortion of the pupil, pain succeeding from thence, without any redness of the Eye, a synechia often happens.

This is cured by extraction of the crystalline lens, by incision of the Cornea; it is relieved by a constant supine posture, that a synechia may be excited, and a space larger than the crystalline may be produced in the second chamber.

## §. 2.

STAPHYLOMA.—Clou.

STAPHYLOMY.—AQUEO-CORNEAL CYST, or UVEAL HERNIA.

This is a watery Cyst from a proptosis, and dilatation of the Cornea, or from an Hernia of the Uvea fallen through a foramen of the Cornea. There is one Staphyloma of Gunzius, to which the first of these descriptions is properly applied; another of the antients, which is impossible, and

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appears

appears to Gunzius fictitious, who is fupe ported in his opinions by arguments of confiderable weight.

3. Caligo a Staphylomate.

CALIGO from an AQUEO-CORNEAL CYST, or UVEAL HERNIA.

This Staphyloma has different names according to its fize; Melon, a small berry—Muscephalon, the head of a fly---Elos, a nail.

This is a tumor arising in the Cornea from the falling in of the Uvea within a foramen or pipe of the Cornea, which tumor is rather round, and of livid red color.

(Its existence is denied by Gunzius—St. Yves admits a sclerocele, or a tumor of the conjunctiva becoming prominent from the aqueous humor poured underneath from a rupture of the sclerotic membrane, in the white part of the Eye, whence a spherical tumor, which recedes from pressure.)

This is cured by ligature of thread, or hair tied round its basis till it drops off.

SAUVAGES seems to have taken his account of the Staphyloma from St. Yves.—Though Heister mentions two similar species, still, he says, he has seen the sclerotica enlarged to a considerable degree, and to this he gives the same denomination. If the disease should be but small, astringent lotions of alum, and pressure upon the Eye, may relieve it; he advises indeed pushing back the Uvea, in case of rupture, with a blunt probe—all which efforts, should they prove unsuccessful, and the Staphyloma should increase, he advises excision.

Mr. Bell, by no means fond of minute divisions, unites all collections, such as he has defcribed, under one general view, but in compliment to long custom, retains the name. He fays, that inflammations on the internal surface of the membranes of the Eye that have been of long continuance are apt to yield a purulent kind of matter, which is poured into the chambers of the Eye, by which the Eye is much enlarged, and vision impeded or destroyed; so that neither the iris, pupil, or crystalline, can be distinguished. In some few instances, tho' the iris is pushed forward, and a protrusion takes place, which, if not previously opened, at last N 4 burfts

bursts of itself, and discharges either some part, or perhaps the whole contents of the Eye. Still sometimes partial swellings or protrusions occur in the sclerotica, or opaque part of the Eye—During the formation of this disease, there are severe pains in the Eye, attended with constant restlessness, heat, and other symptoms of sever, which continue either till the Eye bursts of itself, or the contents are discharged by an opening made into it.

But, he adds, there are cases which, now and then, occur, without any other inconvenience but deformity, and loss of fight, and this he attributes to the fmall quantity of matter formed in the swelling, the principal part of the tumor being of a watery nature, possibly from an encreafed aqueous fecretion, still the method of treatment is fimilar .- Which, in the first stage, is to be attempted by endeavouring to abate the inflammation, by blood-letting, blifters, cooling applications to the Eye, and opiates; if these should be unsuccessful, and other means for abating inflammations; if suppuration takes place, and the pain continues fevere, as commonly occurs, from over distension of the coats of the Eye, he then advises an incision into the ball.

Mr. Bell's account gives us not the whole idea comprehended under the term Staphyloma; fuppose

suppose it be admitted this purulent collection constitutes a part .- It says nothing of the protuberances which are acknowledged by St. YvEs and HEISTER; which the latter advises to be cut off with the scalpel, or scissars-" Such a " protuberance, fays he, in this manner I my-" felf cut off at the root, from the Eye, of the " length of one's finger." Mr. St. Yves's method of removing these protuberances, when they have not wholly obscured and covered the Cornea, is to pass a crooked needle and filk thro' the middle of the Staphyloma, and after removing the needle, he twifts together the threads, and extends them with his left hand, whilst with a scalpel or lancet, he frees the tumor under the ligature, till he can at length totally extirpate it by the scissars. Lastly, he applies a compress over the disordered Eye, dipt in spirit of wine. diluted with water. And thus not only the Staphyloma is removed, but the Cornea itself becomes perfectly healed, or else leaves but a very fmall aperture in the middle of the wound; from whence indeed the aqueous humor is con+ tinually discharged, as fast as it is secreted in the Eye, but without any trouble or uneafinefs to the patient, because it flows gently with the tears through the lachrymal paffage into the nose.

It must be of great disservice to multiply terms where they are likely to perplex, and create confusion, but certainly the same objection lies in contracting where the effects are similar, which here evidently appears to be the case. SAU-VAGES confiders the Staphyloma as an aqueous or uveal Hernia,-fo does St. Yves, which may affect part of the Cornea, or the whole. Heis-TER allows, amongst a number of other disagreeable and dangerous fymptoms, it induces abfcefs. In the Staphyloma of SAUVAGES, &c. the Cornea feems only affected, in that of Mr. Bell the ball of the Eye; so that Mr. Bell's may be considered rather as an exophthalmia purulenta, both from its cause, appearance, and mode of cure. In order to fix a clear idea of the two complaints, Staphyloma and Hypopion, we fhould confider the Staphyloma of Mr. Bell as the exophthalmia purulenta, that of Sauvages, &c. as aqueo-corneal, or uveal hernia, which may be the cause of it; and the hypopion of Mr. Bell as the corneal abscess, a collection of pus inter laminas, not sub lamellis; -by which means all confusion will be avoided, and perfpicuity take place of perplexed contractility.

4. Caligo ab ectafi. Mauchartii. Hyperauxefis Iridis. L.

APPENDICULA-PUPILLARY CALIGO.

Ectasis, or Chalasis, is an obstruction of the pupil, from fungous appendiculæ arising from its edges. This disease, according to Lower, is common to horses, and causes in them the meridian amblyopia, or nyctalopia, and sometimes, perhaps, brings on a membraneous cataract.

This is cured by the excision of the appendices, by the needle pushed within the Cornea.

5. Caligo a Synisesi.—Mauchartii.—Wool-housii, &c. L.

CALIGO, from an UVEA-LABIAL COA-LESCENCE.

This is a more full obstruction of the pupil, from the coalition of the lips of the uvea. This imperforation of the pupil is eitheir natural or acquired, as from hypopion, empyesis, purulent cataract, or ophthalmy of the choroidal membrane.

It is cured by CHESELDEN's operation; a foramen of the uvea is cut by the needle passed thro' the Cornea.

# §. 3:

6. Cataracta membranacea.—Woolhousii de Cataracta, 1719. Thesis Tiguri, 1721; a Telâ Histoire de l'Acad. des Sc. 1718, Pag. 18.—Cataracta vera of the Antients. Cataracta membraneo-floccosa. Mauchartii Dissert. L.

#### MEMBRANEOUS CATARACT.

This arises from mucus exuding from the margin of the pupil, or uvea, observed by Lower among horses—Sometimes it concretes into a membrane, which obstructs the pupil. Whether it ever exists in the human species seems doubtful; but the most eminent oculists have said, that they have discovered it several times, and depressed it with the needle. Its diagnostic symptoms are not yet distinctly marked.

Dr. Thomas Lawrence had in his possession an elegant preparation injected by himself; in which there plainly appeared a membraneous expansion that covered the pupil, and had its blood-vessels filled with the injection; this was shewn to MEAD.—See Mead's Works.

Mr. GEO. BROTHWICK Supplies us with a case of this kind, Medical Comment. Edinb. V. 2. p. 86. where, after cutting the Cornea, the lens made not its appearance from gentle preffure, owing to a membrane which entirely filled up the pupil, thro' which the golden needle of de WENSEL, used to tear the capsule, would not pass. He therefore, as he could easily distinguish this membrane from the circular fibres of the iris, as it was of a different color, made a small puncture in it on one fide, where it joined the iris .- At this puncture the aqueous humor of the posterior chamber began to issue; in proportion as it came away the preternatural membrane was radically detached from the circular fibres of the iris, and at length was entirely difcharged from the Eye. This being over, the crystalline capsule appeared. It required some time to cut it with the end of the needle; this was at last executed, and the lens, which was large and opaque, was then extracted by gentle pressure, and the patient instantly perceived a great light .- Mr. Bell fays the feat of this cataract is in the membrane which furrounds the lens, and therefore termed membraneous cataract. 8. 4.

### §. 4.

# 7. Exophthalmia a Staphylomate. L.

Exophthalmy, from a Staphylomy, or Aqueo-corneal, or uveal Hernia.

This Species exists as often as the Staphyloma, whether it may happen when the Cornea is entire or divided, arises to such a size, that the protuberance remains always bare, or at least in part; nor can the prominent anterior portion of the Eye be convered by the palpebræ.—See Staphyloma.

# §. 5.

3. Amblyopia meridiana.—Nyctalopia, HIPPOCRATIS Prædictiones, L. 2. Vespertina
Acies. Fel. Plateri, Visus nocturnus, Boerhaave. de Morbis oculorum,
P. 161. Amongst the French, Nyctelopie—Vuë de pibou, de chat, &c.

#### MERIDIAN AMBLYOPY.

Those who do not see any thing in the day-time, but see sufficiently acutely in the night and evening, HIPPOCRATES says, are Nyctalopes.

Nyctalopes. Boerhaave recites two Varieties-The first from the opaque Nucleus of the crystalline lens, the pupil still remaining immoveable—but thinks this Species fictitious. It is indeed true, that if, in the day-time, the pupil is contracted, and the nucleus of the crystalline opaque, the fight will be excessively obscure; and if in the evening the pupil should be dilated, and, agreeable to Boerhaave's opinion, the diameter should become triple to what it was in the day, and therefore the aperture nine times as large as it was before, then a fufficient light will penetrate the edge of the crystalline lens to promote clearness of vision --- but it is contradictory, that the pupil should be so contracted, even in the meridian light, feeing that a cataract is formed; for by how much less light cataractous people receive, by fo much more they dilate the pupil, so constant experience teaches us, therefore this Variety feems fabulous.

The second Variety is that which depends upon the extreme sensibility of the retina, such as happens in internal Ophthalmia, whilst the uvea retains its usual mobi-

lity, fuch as occurs in children; -- for as in a fevere Ophthalmy, Nature fo closely shuts the palpebræ, that the patient himfelf, by the intervention of his hand, scarce has power to open them, for fear of pain which the light occasions, it is not to be wondered at if, whilst the retina is very fensible, as in the internal Ophthalmy, nothing can determine Nature to open the pupil; it is indeed true, that the entire closing of the pupil is impossible, even in ophthalmics; and if it should be open a little, a small ray of light, in an eye endowed with fensation, is sufficient for vision-whence, if this species does exist, it is very rarely, unless some other condition takes place, which, according to Lower, many equerries and horse-breakers observe in horses. Indeed the London Transactions shew us, that those animals are subject to this disease, and that fungous excrescences grow from the margin of the uvea, which altogether obstruct the pupil, when the fun shining, the pupil is contracted, but in no-wise hinder sufficient light from being admitted in the night; for the pupil of horses, as well as of cats, is so dilatable,

dilatable, that it equals the diameter of the Cornea at that time.

The cure of this requires the hand of a very dexterous surgeon;—but should there be an inflammation of the Eye, it must be cured as an inflammatory Ophthalmy.

# §. 6.

9. Amaurosis a Myosi.—St. Yves, p. 346.

AMAUROSY from a Myosy, or Constric-

In all other Species of Amaurofy the pupil is open, nay dilated and immoveable-except that the found Eye being shut, the pupil of the blind Eye, exposed to the light, may expand—but in this Amaurosis, which has a Myosis for its associate, the pupil is more contracted than usual, and at the same time immoveable; neither is it more contracted exposed to light, as is the case in sound Eyes, nor is it dilated, the other Eye being shut, as in other blind Eyes, but remains the same in the sun and in darkness.

A Myofis is a permanent constriction of the pupil, called also Metosis, and also Phthis of the pupil.

SECTION SECTION

### SECTION THE SEVENTH.

CRYSTALLINE LENS AND ITS CAPSULE,

# §. I.

1. Opthalmia a Lente crystallina adaucta.

OPHTHALMY from an ENLARGED CRYS-TALLINE LENS.

ROM a very fingular cure of Ophthalmy, related by Dr. Dobson, and the suddenness and peculiarity of some of its appearances, as well as cure, we are warranted, we presume, in ranging this Species in this place—but we shall recite the particulars, in order that our readers may form their judgment.

A Lady was seized, says the Doctor, with a total blindness of the right Eye. The attack was sudden—There were a preternatural enlargement of the whole globe of the Eye, and tunica albuginea; the last covered in a great measure with deeply inflamed red vessels; the Cornea distended with viscid matter, in appearance of the consistence of a jelly, the crystalline lens protruded by its increased magnitude through the

the pupil, even so far as to seem to be in contact with the inner furface of the Cornea; its form very irregular and unequal. The palpebræ were also enlarged, and, at times, were firmly attached to each other, by means of a thick, white, glutinous matter; nor could these be separated without the most violent tortures, arising from the admission of the air and light, at which time a very copious discharge of acrid tears would enfue. Her other Eye was similarly affected, tho' in a less violent manner. This disorder was accompanied with most excruciating and incessant pains, entirely preventing fleep, and, at times, fo insupportably severe, as to induce Deliquium Animi. - After in vain trying cooling purgatives, continued blifters, glyfters, antiphlogiftic repellent collyria, shaving the head, washing it with cold water, discutient applications to the temples, pediluvia, occasional opiates, appropriate diet, and alterant and nitrous drinks, the difeafe continued unaltered, nay, indeed, more violent than before; particularly after purgatives, it was perceptibly worse, as they seldom ever failed to produce greater pain, more reftless nights, and frequently syncope. The cure was effected by the use of emetics and cortex Peruvianus-But I should have observed, before these were entered upon, to the above complaints, a month or more after the attack, were added, an intense thirst,

thirst, cough, total loss of appetite, bad taste in the mouth, an accession of a regularly formed paroxysm every asternoon, and an universal prostration of strength.

A folution of tartar emetic was given in a faline julep, till it procured vomiting; that being finished, a pill of one grain and a half of extractum thebaicum was swallowed. Her pains were now greatly alleviated, the tumor of the Eye diminished, the gelatinous state of its humors attenuated, and vision began to be restored. She took also a decoction made of bark zj. gentian zs. liquorice zij. boiled in three pints of water till they were reduced to two:—to which was added of Huxham's tincture of bark zii. chalybeate wine ziss. acid elixir of vitriol zij. three spoonfuls to be taken three times a day, when free from pyrexy.

A small degree of opacity remaining in the Cornea appeared to yield to calomel gr. xij, sulph, aurat, ant, 3s. formed into twelve pills, with conserve of roses—one taken every night and morning, and on the third day infusion of

senna sufficient to act as a purgative.

Quære, From the extreme sensibility of the uvea, from the great encrease of the size of the crystalline lens, and its irregular form, does it seem probable that irritation from

the distraction of so sensible a part, with its reaction against the distending power, was adequate to produce all the effects enumerated in this case; and that the emetic was competent to produce the happy consequences, for the lady was apparently relieved from its first operation?

### §. 2.

CATARACTA. Glaucosis, HIPPOCRATIS;
Hypochysis, GALENI; Gutta opaca, and
Aqua of the Arabians—Glaucoma of
some; Susfusio, Johnstoni, Rumphii;
Cataracte.

#### CATARACT.

It is properly defined by BOERHAAVE an abolition of fight, which is attended with a fenfible opacity, confpicuous behind the pupil of the Eye.

There was a contention amongst authors who wrote on this subject, whether that opacity was seated in the membrane or in the crystalline lens itself, but a true definition ought to be free from all theory and opinion.

It differs from an amaurofis on account of the disease perceptible in the pupil, or roundish spot, commonly white in the region and fituation of the pupil-also from a caligo, because the obstacle preventing vision in that complaint is on the anterior fide of the pupil, or in the Cornea, palpebræ, &c. whilst in the Cataract the crystalline lens, being rendered opaque, with respect to its nucleus, or either lamina of the capfule, whether it should be anterior or posterior, therefore reflects all, commonly transmits not any of the rays of light; hence it is evident, that the image of objects cannot be depicted on the retina, and thence vision will be suppressed by the means of this repagulum, although the retina, and the other organs of fight may be in a perfect state.

The crystalline lens is not so closely enveloped in its capsule, but one or two small drops of a viscid humor may intervene between the nucleus and capsule; by the intervention of which, the capsule itself may alter its figure, and become more convex, or flatter by the action of the Corona ciliaris, or ciliary processes, which action ceasing,

the elasticity of the capsule endeavours to give a spherical figure to the crystalline lens, and in fact this spherical figure is often observed in cataractous crystallines which have been extracted.

The opacity of the crystalline lens seldom happens suddenly, at least from internal causes, but encreases gradually; but it is very likely the Corona ciliaris being relaxed uniformly, the lens itself may be changed into a spheroidal body, and from thence become more convex, and at the same time more opaque.

Therefore the same thing occurs in a recent Cataract, as to Eyes beholding objects through a more convex lens; they, for instance, cannot see objects distinctly unless they are near them, and placed at a given distance not beyond it, as their sight grows shorter every day; besides, because the opacity of the speck gradually encreases, that which represented a cloud situated at the bottom of the Eye in the beginning, growing more and more white in process of time, will appear to the oculist examining it, nearer the Cornea, or less deeply seated; for the

fame object, which reflects a greater light, appears to be placed nearer on that account; —for which reason by how much a greater light that spot reflects, so much less does it transmit to the retina; therefore in time the sight becomes more obscure in a cataract, and when the obscurity no longer encreases, the cataract is called ripe, at which period indeed the patients distinguish the light of the sun from darkness, but cannot distinguish the colors and forms of bodies.

There are people afflicted with Cataracts, who at first are affected with a suffusion, or with the appearance of slies, or threads sufpended in the air, on account of a complaint of the retina joined with it; but this suffusion sometimes does not accompany a Cataract, nor ought it to be ranked amongst its symptoms; and they are mistaken who suppose appearances similar to straws, or opaque spots, are to be deduced from their residing in the crystalline lens, which De Chales, in his Optics, ridicules;—cataractous people, having the retina unaffected, see objects as if enveloped in an uniform cloud; but they see no objects distinctly,

or flying in the air circumscribed within certain limits.

The affistance which is given to cataractous patients are either physical or mechanical—and these chirurgical or dioptrical.

The physical aids are medicines internally given to dissolve the viscidity of the lymph, as well as externally, to procure its fluxility. Thus broths, and milk whey, mixed with the juice of millepedes, or baths repeated, are very profitable. The dioptric aids before the chirurgical operation for this difease, are concave glasses, in general of little use because of the increasing opacity, altho' they may be indicated from the myopy, or Mortness of fight, with which it is joined .-After the detraction of the Cataract about three months, not less, the proper glasses are those whose sides are both convex, whose focus is very short, or of the extent of four or five fingers breadth.

The chirurgical assistance is, 1st, From depression of the crystalline lens, which is performed by a two-edged needle being passed near to the temporal canthus a line from the Cornea, behind the uvea, by which

means the crystalline lens being perforated from above, both the lens and capsula may be depressed and hid in the lowest part of the vitreous humor, and by perfect rest obferved for nine days, both Eyes bound over with a bandage, there detained.

\*\* The idea of Cataract is now totally cleared from all that confusion in which we findit in the perusal of antient authors involved; it is universally allowed to be an opacity of the crystalline lens, or its capsule—Mead says, the hand of a skilful surgeon to perform the operation is the only remedy.—The plain and simple account given of the operation by Mr. James Lucas, who seems to have paid particular attention to this disease, is well worthy our notice.—He says,

It is a disorder both sexes are equally subject to, children may have it at their birth,
no age seems exempt from it; but the greatest numbers affected with it are advanced in
years.—This malady, except in unfavourable cases, is seldom preceded by much pain;
it usually comes on gradually, and without
any visible cause; the patient complains of

a mist before the Eyes, and can see better in a moderate than strong light.—The crystalline, or as Mr. Pott observes, the capsula may become opaque from a blow on the Eye; the crystalline humor being opaque denotes the existence of a Cataract, and by the color of it may be often conjectured its being of a favourable or unfavourable kind.

If the opacity is of a light color, or whitish, if the pupil preserves its regular form, and retains the power of contracting and dilating itself freely, if the patient can distinguish light from darkness, one light from another, and strong colors, the operation will feldom be found to fall short of a perfect cure. An opacity in the Cornea, a gutta ferena, an immoveable contraction of the iris, or an adhesion of the crystalline capfula to it, may accompany a Cataract, and prevent the benefit of the operation .-A low diet, with a dose or two of opening medicines, and in fome cases bleeding will be found useful previous to the operation. Peculiar habits may require variations—but fo long as the patient can fee with either Eye to be useful, the operation is better deferred, which is either depression, or extraction: Each

Each have their advocates, but the former is a more simple, and less difficult operation, neither tedious, painful, nor hazardous, but one of the most satisfactory in surgery; it is less liable to be succeeded by violent inflammation; and though the first operation fails, yet the cure may generally be accomplished by a repetition.—Extraction effects all it is capable of doing at one operation, the cure is more speedy than by depression: but an imperfect vision has succeeded in some cases, from remaining portions of the crystalline capsula, which might still be removed by the needle.

The round needle of Baron HILMER he prefers to the flat, as with it there is less danger of wounding the iris, or ciliary process—The weight of the needle half a dram, and about four inches and an half long, the point a little flat, and the handle has a little flatness, which corresponds with the point.—Every surgeon, who performs the operation on the Eye, should accustom himself to use the lest hand, which practice is readily acquired, and very satisfactory.—Too much light in the room, or a double light, must be avoided; the feat of the operator

opetator must be higher than that of the patient, who must be directed to employ his hands in taking hold of the chair, to avoid lifting them up against the instrument, and the opposite side must be kept from motion by a linen compress.—The head must be held firm.

The point of the needle, previously dipped in oil, must in its introduction be directed a little backwards, a little upwards, and in a line with the center of the pupil; when it is brought forward, care is required to avoid the iris, and ciliary processes, by carrying the instrument too far, or not far enough, for its point to be in view.

If the cataract is firm enough, by bringing the needle before it, to bear depressing
beneath and behind the pupil, the needle
may be withdrawn in the same direction in
which it was introduced.—Should the Cataract rise again, it may still have been so far
dislodged as to cause its dissolution, should
it slip into the anterior chamber, as sometimes happens in attempting the depression,
it will gradually dissipate without any further operation.

If the Cataract is fluid, breaking, or even fometimes penetrating the capfula, will cause the morbid humor to mix with the aqueous, and if a future operation is required, it will be to remove some portions of the opaque crystalline.

A Cataract would very frequently be effectually cured by one operation in length of time; but the pain from the repetition is so tolerable, that many wish it to expedite the cure. When the remaining portions of the Cataract are so loose as to shake with the remaining motions of the Eye, a cure may be expected without another operation; adhesion and opacity of the capsula seldom dissipate without a repetition.

The principal cautions in couching are, not to wound the iris, or ciliary processes, and not to attempt too much at one operation.—Patients bear very well to have one Eye couched immediately after the other; a little more care is necessary in confining the motion of that Eye, which has just undergone the operation. The Eyes must be covered with a piece of linen spread with some mild cerate, whether one or both have been

been couched: the patient must sit or lie in the dark, and live on low diet, for several days.—Should inflammation and pain succeed, bleeding with leeches, arteriotomy, blisters, anodynes, nitre, and such other antiphlogistic means as are generally employed in local inflammations, will merit the utmost attention, as an obstinate inflammation may endanger the success of the operation.—After a child is old enough to bear the operation, where the head being held still is of so much consequence, couching may be proper at any age.

A fluid Cataract is equally opaque with a firm one, and does not depend on the difease being recent. Depression is equally capable of persecting a cure; whether the Cataract be sluid or solid, and when the blindness has existed for two months as two years:— and in doubtful cases may be tried as a remedy by no means violent or hazardous.— An opacity of the Cornea has been so thin, as to admit of considerable benefit from depressing a Cataract, but also the same cause has prevented any material advantage.

To this account, in order to render it more fully perfect, it may not be thought improper to add—That the hands of the patient should be held by assistants, to prevent interruption, which would be of the greatest disservice; the operator's elbow should have a rest, in order to give steadiness to his hand; the Eye sixed in a proper speculum, the needle introduced rather below the centre, and about one tenth of an inch behind the iris, and the crystalline lens carried to the bottom of the Eye through the vitreous humor towards the external angle, and by these means it will seldom rise again, a circumstance which sometimes happens.

With regard to the idea of maturity in the Cataract, we cannot avoid taking notice of so respectable an authority as Mr. Pott;—though it has been thought the soft state of the crystalline lens implies its being unripe, the hard state of it being mature.—Of this idea he approves not, and instead of using these terms, he would say, that dissolution or softening the crystalline is by much the most common effect, and that seven times out of nine, when the lens becomes

opaque, and tends to form a Cataract, it is more or less softened. - Sometimes this happens equally through its fubstance-sometimes partially, having a greater or less portion undiffolyed-but even this undiffolyed part rarely or ever is so firm as the centre of the found crystalline. He seems to conjecture that Cataracts which have been found perfectly foft, have in general become more and more opaque by flow degrees, and firm ones hastily opaque; of which opinion he wishes from observation to be satisfied. From the color of the Cataract he thinks no conclusion can be drawn, with regard to its confistence; but that when the opaque crystalline is quite dissolved, so as to form what has been called a foft Cataract, it is fomewhat enlarged; and that when fuch diffolution does not take place, and what is called a hard Cataract is formed, the crystalline is in some degree lessened. But in either case he prefers couching to extraction, and shews that the lens is readily dissolved in the aqueous humor when freed from its capfula. He also wishes to know whether the hard Cataracts becoming hastily opaque

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are not preceded, or accompanied by fevere and deep feated pain in the head, particularly in the back part of it.—Med. Comment. Edinb.

Secondly, the EXTRACTION OF CRYSTALLINE AND CAPSULE is perform. ed by cutting the Cornea round about three fourths of its cir-cle, beginning from its lowest part, which is done by the means of crookedic issars, anincision first made with the lancet, in the mean time the Eye is to be kept fixed by a speculum placed under the Eye-lids, the incision being made, the crystalline, by gentle pressure, is pushed to the orifice, or if the crystalline is not sufficiently ripe, it may be extracted by the help of the auriscalpium; then the jagged edges of the capfula, and the mucus and flocks falling from the capfula are alternately removed.

In the first method we must wait till the Cataract is perfectly formed, or matured—otherwise, as it is said, we should fear the depressed crystalline might rise again; or rather, least the opaque mucus of the capsula should remain, which may bring on a secondary

dary Cataract ;- In the other method we may have reason to be afraid, lest by the too strong pressure of the Eye, the vitreous humor should flow out along with the aqueous, and what more frequently happens, lest the choroidal membrane should be inflamed highly, because, perhaps, when the lens passes through the foramen of the pupil, or is extracted by the aurifcalpium, the uvea and corona ciliaris may be too greatly distended. This ophthalmy persists for fifteen or twenty days, which being fubdued, an uncommon and fingular fuffusion, though a temporary one, comes on, the patient at that time appears to fee objects as if fprinkled over with fnow, with a black bird in the centre.

Immediately after either of these operations, the albuminous collyrium, of the white of egg and rose water mixed, should be applied over the Eye; but besides this, in the last method the Eye ought to be bound down at least for four days, lest by coughing, vomiting, or sneezing, the vitreous humor might escape through the wound of the Cornea.

We

We have an account of a new method propofed by Augustus Gothlieb Ritcher, which he has often practifed, and never without fuccess; the want of which in extracting the Cataract may proceed from various reasons, according to his opinion; but occurs more especially from the following causes, viz. Either from the disorder being conjoined with some general affection of the system, as the gout, scrophula, venereal disease, or from the capsula of the crystalline lens, which, in this operation, is always left behind, in some cases becoming opaque, and otherwise diseased-In every operation of this kind, therefore, the general health of the patient should be previously examined, and if any of the above-named disorders are prevalent, they should either be corrected, or, if that cannot be effected, and the operation is infifted upon, a very doubtful prognosis should be given.

But with a view of preventing blindness from the last-mentioned cause, he proposes the following operation, which he was led to by finding on diffections, that, in couching, or depressing the Cataract, the capsula is always depressed also.

After cutting the Cornea in the usual way, he introduces a small sharp needle, guarded with a canula, and pushes it into the lens, then raises it point upwards gently, then depresses it, and afterwards moves it in all different directions, so as to detach the lens and its capsula, effectually from the surrounding parts.—After this by making a very gentle pressure on the Ball of the Eye, the Cataract covered with a tunic is easily pushed out. It may be objected to this operation, that the vitreous humor will be very readily pushed out together with the lens, but when it is cautiously done that accident he observes never happens—Med. Comm. Edingb.

The operation for extraction of the Cornea is too loofely described by SAUVAGES; the lower part of the Cornea should be divided by a two edged knife, whose side which keeps near the Iris should be round, this should enter the Cornea about its center, one fixteenth part of an inch from the Iris, and pushed thro' the other fide, then divided thro' the lower part at an equal distance from the Iris, a speculum at the same time pressing the Eye in a degree sufficient to keep it firm, yet not powerful enough to press out the vitreous humor; this done, a sharp probe, needle, or flat curved probe should be pushed thro' the pupil to divide the capsula of the crystalline lens, and the lens forced out by gentle pressure; the wound in the Cornea, if

necessary, should be enlarged by the scissars .-- Before the lens is pressed out, all light should be fecluded from the eyes of the patient, in order to occasion a dilatation of the pupil as much as possible; with regard to extraction of the remaining part of the capfula when opaque, as is sometimes the case, as practised by some, after the operation; Bell disapproves of it, and rather advises to trust to time, and an antiphlogistic regimen for the removal of the opacity.-Tho' Mr. Bell recommends great caution in order to avoid the extrusion of any of the vitreous humor, when that has been the case, he has known the Eye filled again so as to preserve its globular appearance, whether owing to a renewal of a larger quantity of the aqueous humor, or to that of the vitreous he is not clear, he supposes it may be the latter, but which ever it was, the fight was regained. After this operation, the same means in order to prevent or cure inflammation is necessary, as was recommended after couching.

We have seen that couching is prefered to extraction, by Lucas, Pott, and so is it also by Bell and the generality of surgical operators—there are three objections enumerated by Bell against the latter.—viz. That the vitreous humor is apt to pass suddenly off along with the Cataract.—2d. That the incision being made

made in the transparent part of the Eye, the cicatrix which ensues is frequently so extensive as to obstruct the rays of light in their passage. And 3dly, the lens being often too large for passing thro' the pupil, the iris is frequently injured by this part of the operation, tho' very properly performed perhaps in every other.

To prevent the two first inconveniencies he purposes dividing the Cornea in the superior parts, and performing the operation as before, only with this difference, cutting from the center towards the top of the Eye, and extracting the crystalline if retained in the pupil, to which in this case it may be more liable than in the former, either with a scoop, a small sharp hook, or a pair of forceps made for this purpose.

To avoid the last, he recommends an opening to be formed behind the iris, which would also prevent any inconvenience to the fight from a cicatrix,—the opening should be made in the upper part of the Eye, about the tenth part of an inch behind the transparent Cornea, of a sufficient size to admit the crystalline to pass, which should be extracted by a sharp crooked probe—The apparent objection to this operation might be the fear of a more violent inslammation coming on, and the substance of this coat being thicker than the Cornea, wounds are commonly supposed to be more difficult to heal—these did

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not happen in the experiments made by him on rabbits, in a greater degree than when the operation was done in the usual manner.

All the experiments recommended have been made successfully on animals, and seem to be so well supported upon rational principles, that they merit every attention, and will upon trial, it may be hoped, answer every defired end.—See Bell's surgery, vol. 3.

3. Cataracta vera, MAITRE-JAN; Glaucoma, Woolhousii de Cataracta, Page. 30. Cataracte vraye; St. Yves, des Maladies des yeux. Cap. 14. L.

#### TRUE CATARACT.

This is divided into different varieties, as virgata, firiated; luxata, diflocated; purulenta, purulent; exficcata, shrunk or exficcated; and protuberans, protuberating.

A-virgata striated, St. Yves, P. 288.
Cataracte barrée.

In this the opaque crystalline humor is intersected with one or more colored lines, however

however they may be disposed. This variety seldom has the crystalline so ripe, that it can be depressed; for the crystalline lens being wounded pours out its white or yellow mucus, by which means the aqueous humor becomes foul; whence the sight remains obscure, unless the mucus sinks down spontaneously, or the operation being repeated it is removed downwards by the middle.

B—purulenta, ANT. MAITRE-JAN; Cataracte purulente, un abscés au Crystallin. L.

#### PURULENT CATARACT.

This is produced by the suppuration of the crystalline lens. Pain in that Eye precedes suppuration, sometimes with external Ophthalmy, and frontal hemicrania, a cloud of the crystalline comes on; matter being formed the pain abates; the lens grows white, swells unequaly, altho'it is of a smaller size; the pus being poured out the aqueous humor becomes foul, the color of the iris is changed, the pupil much contracted, and the

the fight very obscure.—See Ophth. ab Empyese, and Calig. a Myosi.

C.—agyrias. Woolhousii and Maus CHARTII.

ARGENTEAL, OF SILVERY CATARACT.

Upon the crystalline lens a small shining speck like silver, or macula, discovers itself, which is thought by St. Yves to be formed by a partial diminutive abscess upon the surface of the crystalline; that white point sometimes remains thro' life, and only obscures the sight in a small degree, the afflicted in whatever direction he turns his Eye, he receives a shade, or a little cloud diffused over the object;—so says Maitre-Jan.

D.—clavata, Woolhousii de Cataracta, p. 21. Albula & Tophus, of the Antients; Perofiæ, calli, & clavi Oculorum; — Is it the Grando of Mauchartius? L.

CLAVATED, OF NAIL-LIKE CATARACT.

This has been observed only by WoolHouse alone; which happens to dogs fitting

ting perpetually before the fire; and this arises from white fibres, which like a nail passing from the conjunctiva, where they form a knot, penetrate into the Eye and crystalline lens, and as it were perforate and fix them together.

E.—luxata, Cataracte déplacée, MAI-TREJAN, and St. Yves.

#### DISLOCATED CATARACT.

This depends upon the crystalline lens becoming opaque, but removed from its natural situation.

It is discovered, 1st, from the cause, viz. a blow upon the Eye with an effusion of blood, or hæmalope; 2dly, from the immobility of the pupil, and a great mydriasis; 3dly, from the crystalline growing white, and pressing the uvea which it pushes outwards; 4thly, then the lens becomes dry, and decreases; at that time the patient perceives the shadow of objects placed between the sight, and Eye affected.

MAITRE-

MAITRE-JAN thinks it is useless to interfere with the crystallines affected as above.

F—— fynchefi, MAUCHART. Cataracta viva Woolhousii; Glaucoma, Heisteri; Cataracte branlante, d'Ant. Maitre-Jan; fonte & dissolution du Vitré.

SYNCHESY, OF MOVEABLE CATARACT.

This is an abolition of fight, with a white or yellow speck from the crystalline opaque, and at the same time moveable at every motion of the head; the crystalline is diminished, and indurated.

This proceeds from a diffolution of the vitreous humor, into yellowish putrid serum.—An internal Ophthalmy precedes, which runs into suppuration, with excruciating pains, and then in the beginning the pupil appears white; sometimes the dissolution is putridinous without pus; at the onset the bottom of the Eye is seized with pain, and also the anterior part of the head; the sight then becomes obscure, or is altogether lost; the crystalline lens is clouded,

grows white, and yellow, the pupil is dilated; the iris loses its natural color, is corrugated, and adhering to the crystalline, the uvea is determined inwardly or outwardly.

This putridinous diffolution is an incurable difease, taking away the fight, but occasions no other mischief to the Eye.

2. Cataracta glaucoma; Ant. MAITRE-JAN, St Yves, Le Glaucome of MAI-TRE-JAN, not of Woolhouse.

GLAUCOMY, OF EXSICCATED DECREASED CATARACT.

This is an exficcated Cataract, and it is known; 1st, from its bluish, or greenish color; 2dly, from its diminution of size, its lost transparency, its hardness encreased, and vision being totally destroyed, according to St. Yves; 3dly, pain rarely precedes, unless the Cataract arises from an internal Ophthalmy, or from a blow which is thought by the above author most frequently to happen; 4thly, the pupil is round and of its natural

natural diameter; but according to St Yves a mydriasis attends; 5thly, the sight in the beginning is cloudy, as in a cataract, yet from the larger angle of the Eye, has a clearer perception; 6thly, the crystalline lens changes its color, it is at first bluish, but afterwards grey, pearly, or greenish-yellow, nay a blackish-yellow.

According to St. Yves it differs from the cataracta vera, because a glaucoma is accompanied with an amaurosis, or gutta serena.

This disease is incurable, if, as St. Yves thinks, it is accompanied with amaurosis, or blindness, from a paralysis of the retina.

3. Cataracta anti-glaucoma — Anton. Trejan, l'Antiglaucome. L.

ANTIGLAUCOMY, OF EXSICCATED EN-CREASED CATARACT.

This differs from a glaucoma; 1st, because the bulk of the crystalline lens appears larger, which in a glaucoma is less; 2dly, the pupil may be dilated; 3dly, the crystalline protuberates, and resembles the color of polished horn, shining; altho' its superficies becomes unequal; 4thly, because the periphery of the pupil resembles the inequality of the crystalline lens; 5thly, there is at last no vision, no contractility of the pupil; 6thly, no pain precedes, or accompanies it, such as precedes the origin of a glaucoma.

It differs from a true cataract, because in the first place, in a cataract the anterior capfula of the Crystalline lens is dissolved; in the anti glaucoma it is indurated or thickened; adly, from whence the lens appears larger, but in the glaucoma less; adly, the crystalline in a glaucoma, is variegated, deep-seated in the antiglaucoma, of a pure color like white horn, and protuberating.

This difease is incurable.

4. Cataracta secundaria, Hoin. Mem. de l'Acad. R. de Chir. Tom. 2. p. 425. L.

SECONDARY CATARACT.

The cataractose crystalline being depressed, the crystalline capsula, it often happens, is not deterged; particularly if the patient from his

his own negligence, or that of his furgeon, should permit an internal inflammation to come on so that that part of the capsula which adheres to the vitreous humor may become opaque, and white; in the same manner as the Cornea in an Ophthalmy is rendered opaque, when there is an external inflammation; as well as from the mucus adhering to the capsula itself being exsiccated or collected there; for a secondary cataract does not happen when the crystalline lens has been extracted by Daviel's method, and the capsula deterged from its mucus, altho' an internal Ophthalmy often supervenes this operation.

If we consider the use of Daviel's operation, a cataract may be divided only into two varieties, viz. into simple which may be cured by extraction of the crystalline lens, but hitherto scarce a fourth part from this operation have recovered distinct vision; and into those complicated with amaurosis, atrophy, Ophthalmy, &c. which have undergone the operation to no purpose, or with very little advantage.

The daily use of white henbane, beginning from a third part of a grain, and gradually encreasing it, so long as there is no dryness in the cosphagus, or nostrils, is the most famous, and almost only, remedy for the resolution of a cataract, which I have found from many observations.

A priest was afflicted with this complaint in the right Eye, who, after taking this medicine for eight days, in which time he advanced to three grains, could read a book printed with very small letters, tho' before could not see them, except they were very large; the crystalline lens sirst became white, then bluish, and rather pellucid, the myodal suffusion, under which he labored, disappeared, but his appetite and rest, which he before enjoyed in a very impersect state, became perfect and vigorous.—By this medicine we saw another man cured by Dr. Coulas also, whose crystalline lens became totally diaphanous.

Mr. George Borthwick in the same paper which we have before quoted, tells us, that af-

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the Eye-lids of the patient was shut, and kept in that state a fortnight, dressing the Eye once every day; at the end of which, he was desired to open his Eye-lids, he then perceived the light, and enjoyed such a degree of sight as to be able to walk about.—In this way he continued for two months.—His sight then began to grow more dim, and in a few days after, he became as blind as before the operation. On examination, the Cornea was quite pellucid, and the iris sound, but the crystalline capsula was perfectly opaque, which gave the Eye the same appearance which it had before the operation.

## \$ 3.

# 5. Strabismus a Crystallino. L.

STRABISM, FROM A DISLOCATION OF THE CRYSTALLINE LENS.

This species, which may be perhaps sictitious, depends upon a luxation of the crystalline lens, as the lens may be placed obliquely in the pupil; for since in this case the things we behold before us may send out their rays, which being refracted obliquely bliquely from the crystalline, fall not upon the middle, but upon the sides of the retina; the patient, that he may see more clearly, is forced to look at the object obliquely, so that the cone of the refracted light may fall into the middle of the retina, where he may see more distinctly.

## SECTION THE EIGHTH.

## VITREOUS HUMOUR.

### §. I.

of the Greeks; MAITRE-JAN de l'Extension du Corps Vitré 2. p. Cap. 1. Idem Exophthalmia Chap. 6. p. 2. Gutta Serena with some. L.

TENEBRICOSE, OR VITREO-PUPILLARY OPHTHALMY.

both Eyes are afflicted with pain.—The pain abated, or receding, the bulb of the Eye appears a little larger, and more prominent; the pupil is much more dilated, and less contracted by the stimulus of the Sun's rays, than in an healthful state; the fight is so much obscured that the patient can scarce distinguish objects, scarce can they walk alone.

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The prominence of the Eye is less apparent, if the iris is black, particularly if both are affected; but more visible if the iris is blue, or rather light colored; the Eyes are chiefly open; by proper affistance most of these recover their sight, yet not so perfectly as to have their former power of distinction, or clearness.

This disease most commonly happens to atrabilious men; to women one or two months gone with child, and continues to the time of delivery; to obstructed virgins, whom it afflicts four or five months.

This in the beginning is with difficulty distinguished from an incipient common cataract, and also from the cataracta glaucoma; but seeing that no opacity of the crystalline lens comes on, and that the sight some time or other is restored; thus it is known from other diseases.

The proximate cause of this disease is, the encreasing bulk of the vitreous humor, by fluxion or congestion; whence arises a dilation of the pupil, pain, swelling of the Eye, a pressure of the retina, and obscure vision.

If

If the fluxion exciting this ophthalmy is more powerful, and the fluids more acrid, the Eye protuberates more externally, is truly inflamed, lancinates within, the pain becomes almost intolerable, a redness externally with heat, nay indeed an acute fever, want of sleep succeed; the Eye-lids cannot cover the Eye, but are inverted, a scalding epiphora, obscure sight, and at length a perfect and incurable amaurosis come on, and the internal parts being suppurated, a synchesis, or dissolution of the vitreous humor happens, also the fistulæ perforating the Eyes, all which ought to be referred to an internal Ophthalmy.

At the beginning, this disease requires repeated bleeding in the arm, seet, and neck; nay even arteriotomy, according to the violence of pain, and degree of plethora, then those things which may evacuate serum, as blisters ad nucham, and behind the ears, also cathartics repeated every sixth day, and the following ptisan.

R. Rad. Sarfæ. Zj.

Chinæ. Zfs. decoquantur in

Aq. font. lb iv. ad lbj. f.

Sum. cyatha quo ferò & manè per dies quindecim.

Topical applications, except refolvents, fcarce ever agree with this complaint, and these indeed afford but trisling advantage.

Cullen arranges this under idiopathic Ophthalmy of the membrane of the Eyes.

## § 2.

EXOPHTHALMIA; Magnitudo nimia, prolapfus, Expressio Oculi of the Latins; Hygrophthalmia, Elephantiasis Oculi, Boerhaave; de Morbis Oculi, Part. 2, Cap. 5; Exophthalmia, Hydrophthalmia, Buphthalmus, seu Buphthalmia, Ophthalmoptosis, Ecpiesmus, of of the Greeks; Mauchart. Disser. de Hydrophthalmia, & ocul. paracentesi, inter Haller Disputationes Chir. Tom. 1. Grosseur contre Nature, hydropsie, cancer, chûte de l'œil;—Maitre-jan Part 2. Chap. 6. St. Yves, part 2, Chap 1.

Ex-

# EXOPHTHALMY, OR PROTRUSION OF THE EYE.

A diflocation of the Eye; its natural fize encreased, or not sensibly changed; therefore the globe, more or less distended, rises from its orbit, either swelling or pushed out, and falling downward, its bulk scarce altered; nor can it be covered by the palpebræ, which should close over the Eye, healthful in other respects.

mia, Buphthalmia Mauchartii; Hydrophthalmia Platneri Instit. Chirurg. §. 754; Hydrophthalmia Boerhaave; Turgescentia Vitrei serosa, Mauchartii Hydrophthalmia serosce vitrei turgescentiæ mixta, of the same; Hydropsie de l'œil, St. Yves—Grosseur contre nature de l'œil; extension non naturelle du Corps Vitré Maitre-jan. D.

#### DROPSICAL EXOPHTHALMY.

This species is owing sometimes to the encrease of the aqueous humor.—Hydroph-thalmia;—sometimes of the vitreous—Serosa vitrei turgescentia;—sometimes to the encrease

encrease of both,—Hydrophthalmia c turgescentia humoris vitrei.

The fymptoms of the hydrophthalmia are, a gradual encrease of the bulb of the Eye, with a turgid tension, and rising from its orbit; the Cornea elevated and more prominent than usual, the iris deeper feated, and farther removed from the Cornea; the pupil immoveable, fometimes larger, fometimes more contracted, tho' according to MAITRE-JAN the pupil remains the fame with respect to its magnitude and mobility; the vision in the beginning is faultless, but in the succession of time weaker and more obscured ;- sometimes it is attended with a flight, obtuse pain at the bottom of the Eye, sometimes the pain is more acute with an hemicrania of the fide affected, a numbness of some parts of the face, sometimes with emphysema, tooth-ach, watchfulness, at length in the ulterior encrease of the bulk with an epiphora, and extrovertion.

The fymptoms of a ferous turgescence of the vitreous humor are; a remarkable encrease of the Eye, pushing out of its orbit, with with a particular hardness and turgid tension; a slight shade of the crystalline lens
poured from the edge of the vitreous humor
elevated around it; squinting upwards;—
sometimes an obtuse, sometimes a violent
pain; an extraordinary diminution of sight;
the iris convex, approaching nearer to the
Cornea; the pupil more dilated than usual,
and altogether immoveable.

The diagnosis of the complicated hydrophthalmy, or that united with a turgefcence of the vitreous humor is more difficult, but there is no great difference in the mode of cure.—Yet this may be foretold from the too great bulk of the globe of the Eye, encreasing more quickly; from its remarkable hardness; from the strabifmus; from a general dilation of the pupil; from the deep fituation of the iris, and from the Cornea being more elevated. This complicated variety is owing fom-times to more acrid ferum, fometimes to ferum more mild pouring itself into the Eve; in the first instance internal and external inflammation, fever, want of fleep, accompany the fymptoms

toms before enumerated; in the fecond they do not attend.

This dropfical Exophthalmy, not neglecting the inflammation of the Eye should it be present, is cured by bleeding, repeated cathartics, internal spirituous resolvents, discutients applied to the Eye; blisters, setons, issues, and even the operation of the paracentess performed in the sclerotica and Cornea\*. See Mauchartius.

# §. 3.

3. Apostema Synchysis, dissolutio Vitrei; œil fondu. C.

An Abscess from a Synchysy, or Aqueo-vitreous Dissolution.

This is a conversion of the aqueous and vitreous humor, with all the contents of the bulb of the Eye, into a viscid, concocted pus, which in process of time is in part

\* Where there is no probability of restoring the fight after the puncture, it is better to bring on such a degree of inflammation by seton or otherwise, as will occasion a coalescence of the parts to prevent its return.

changed into a yellow ferum, the remaining part inspissated; see St. Yves, p. 221. MAITRE-JAN, p. 2. ch. 8.

## §. 4.

4. Amaurosis a Synchesi; ab uveæ phlogosi MAITRE-JAN; ab oculi interni suppuratione of the same.

An Amaurosy from a Synchesy, or aqueo-vitreous Dissolution.

This is a confusion, or mixture of the vitreous humor dissolved with the aqueous.

It is that which begins with acute internal pains of the Eye, the most obstinate, with a head-ach, or hemicrania, watching, fever, sometimes also with Exophthalmy;—the sight is darkened, the vitreous humor dissolved; the pain perseveres sometimes for many months, nay whole years, nor is the sight restored, but altogether abolished.—This amaurosis is incurable.

But it often happens, that thus one Eye being lost, the year after the other Eye becomes painful, inflamed, from the pain of the head and effusion of tears, and the same missortune

misfortune threatens the other Eye—St.
Yves presumes that it may be avoided by

extirpation of the difeafed Eye.

But the extirpation of the Eye, or the excision of the Cornea is by no means void of danger, and I saw twice an incurable hemicrania, and once indeed a mania originate from this source.

The operation in extirpating the Eye has been confidered by many of so very dangerous a nature, that few have courage to attempt it; but it has been successful in a variety of cases, and indeed in those where life would be endangered by its omission, it should at all events be performed—Bell is a favourer of this opinion, and shews clearly the danger attending it is not so great as is imagined; see his Surgery, vol. 3. p. 385, &c.

# SECTION THE NINTH.

#### RETINA.

# §. I.

SUFFUSIO.—Scotoma Heurnii; Med Pract. Suffusio of the Latins; Hypochyma of the Greeks; la Berluë.

#### SUFFUSION.

THIS is a fort of difease of the imagination, whose principal symptom is a depravity, or error of the sight with respect to objects; so that those who labor under a suffusion, think they see things which are not, as slies, sparks, colors, the prototypes or reality of what did not exist before the Eyes.

It differs from a vertigo, because a suffusion represents bodies, or substances which are not, but a vertigo the modification of bodies, viz. the motion, so that in suffusion, we imagine substances which are not; in vertigo vertigo the motion of bodies presenting themselves, which motion does not exist.

Imagination is the faculty of perceiving things absent; to that therefore is the fault to be attributed, if those things which do not act upon the senses, we suppose in reality present: this is the case in suffusion; whence it comes to pass; that to ourselves we seem to see sparks, webs, slies, lighting, as if they actually presented themselves to our view, at the very time they do not.

Morbid optic depravaties are allowed to arise from some defect of the brain, or chiefly of the Eyes; those which happen from the former relative to visible objects, are suffusions or vertigos, attended with many more severe symptoms; as sopor, convulsion, delirium, melancholy, &c.—But if the optic depravity arising from the defect of the Eyes, should be the principal symptom, then it constitutes the proper genus, as vertigo, or suffusion.

The depravity arising from a defect of the external organ, but not of the brain, is called by PLATERUS hallucinatio, that it may be destinguished from dilirium, whose principle

principle is in the brain; to which we should add, that we can correct that depravity called hallucination quickly and eafily, by the affistance of our other fenses, as by means of the touch or hearing; but a delirium cannot be removed by these means so readily, because the functions of the mind necessary to produce that correction, are prevented from exercifing themselves properly from a defect of the brain itself, the principal instrument of these functions; -thus phyficians commonly agree that patients laboring under vertigo and fuffusion are not delirious, who only have their fight depraved; but the melancholic, maniacal, phrenetic, are delirious; hallucination is an acquiefcence in a false judgment; such is that of a patient afflicted with fuffusion, who from perceiving the image of a fly, thence precipitately infers that there is a fly before his Eyes; but the judgment is erroneous, as often as the thing spoken of is not determinable by the knowledge of the fubject; but when the perception is confused, as in suffusion, a certain conception which involves a distinct idea, is not given :therefore

therefore from a brown or black shade, from an error, the presence of a fly is inferred.

But he who has a fuffusion easily corrects this mistake, when stretching forth his hand to the place where the fly is perceived, not touching any thing, he thus reasons intuitively.—It is a contradiction that there should be a fly where we perceive the image, and it cannot be touched; but one or other of the things contradictory is impossible; but it is possible for the image of a fly impressed upon the Eye to be referred hither by the mind, which cannot be touched; and thus he frees himself from his error.

It is certainly aftonishing, since we can only perceive objects by the intervention of an image depicted upon the retina, that the image itself should not at least be perceived by us, but that this sensation should be referred to the objects which we see; hence, led by custom, when the image of an object is applied upon the retina, altho' the most consused, we infer that the object answering to this image is presented externally from without the Eye, and if any

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thing should be defective in it, imagination fupplies the rest .- Thus from an image refembling a mere circumfcribed circular shade, we imagine, a fly, wasp, or hornet to be before us, and therefore to this obscure spot imagination adds wings, legs, probofcis, and other parts of the infect. - For this is the law of the imagination, that as often as a fimple idea strikes the mind, so often those ideas occur which have been used to accompany the former, as the idea of place, time, is added by the imagination to every indeterminate narration; in a word, imagination embraces not universal, but only individual, or perfectly determinate objects.

The object, which we perceive by the imagination as prefent, is called phantafina, phantasia imaginatio, imagination; there are different phantasmata or spectres in different fpecies of fuffusion; the principal ones will be here described.

1. Suffusio-myodes; Scotoma, Heurnii de Vertigine.

MYODAL, OR FLY-FORM SUFFUSION.

The flowers of orchis, upon which flies, wasps, hornets, and such like flying insects are apt to settle, are by the botanists called myodes, as resembling to flies.

This species of suffusion represents some similar insect slying in the air before the Eyes;—but if the Eye being sixed looks upon paper, quickly we discover the sly to be fixed also, not to be moved except the Eye should alter its position.—A dioptric computation seems to persuade us, that the greatest distance to which this phantasma is carried, is ten or twelve singers breadth, or thereabout, not to exceed that; but it is known amongst opticians that the object is not to be seen in the place where it stands, but only in the virtual socus from whence the rays penetrate, or are thought to penetrate the Eye.

The best Eyes, as far as they respect acuteness of vision, transparency of the or-

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gan and figure, are liable to this difease; but old and myopic men are not free from it.

It was an optic error of the antient phyficians to affert, that they perceived in the
fuffused Eye something opaque, as the rudiment of a cataract, which gave rise to
this phantasma. That error originated
from a preconceived theory;—hence it
happens, that many even at this day hold
a suffusion as a symptom, associate, or forerunner of a cataract, althor the notion is often repugnant to experience.

In order to produce this suffusion it is necessary, that whatever it be which intercepts the rays of light, should be placed behind the middle of the crystalline lens, and by how much nearer it is to the retina, as in the vitreous humor, or the retina itself, by so much more strongly will the imaginary fly be expressed; for the rays which fall upon the Cornea from every point of a hæmisphere, which is extremely large, pass into every point of the Cornea and pupil; but when the cones of light from thence proceeding shall be inverted, every cone,

proceeding from a given point of the hemisphere, gradually separate more and more from the others, so that the apex having arrived at the retina, must be totally distinct from all other cones, therefore should there be any point in the retina covered with a small drop, for instance, of blood that is impervious to the rays of light coming from without, that point of the retina will not be able to receive the cone of light, whose apex is there, and the basis in the whole superficies of the Cornea; hence no part of the former object, whose rays constitute the inverted cone. Should a drop of blood be effused in the texture of the retina, fince that must be opaque, it will intercept the external rays coming from a determinate place, and that place will appear more obscure, or black, and the diameter of its shadow will be 7, or 8 times larger.

Let a man laboring under suffusion use a glass very convex, or a microscope, at that time the fly vanishes; because the rays of light becoming stronger, inasmuch as they are united, act upon the retina, thro'

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the

the drop of blood, and then no shadow is perceived.

The cure delivered by the antients was ridiculous, nay indeed noxious.—They advised different collyria, as pigeons blood, warm wine, vapor of aqua vita to be received into the Eye: or acrid ones, as the infusion of fennel, rue, juice of celandine, eye-bright, gall of different animals, that the concretion, which from an error of their theory, they supposed in the Cornea, or aqueous humor might be resolved;—in the first case the mode of cure was of no use; in the second hurtful;—the medicines could not reach the cause.

If blood should be poured out upon the retina, which happens chiefly on account of the great heat of the sun's rays, or a summer journey in the sun, the retina may be hurt, as was the case with Boerhaave—or on account of the blood in a sever being impelled with great force into the extreme vessels, as happens in phrenitic patients whilst nature is vainly attempting to produce a nasal hæmorrhage;—or on account of a plethora from suppressed hæmorrhoids,

or catamenia; for the most part from study by candle-light, the use of telescopes, or microscopes, the retina has been weakened, and as it were inslamed, as is the case with astronomers, who observe eclipses thro' transparent glasses not obscured or colored.

In these cases, 1st, bleeding in the arm, foot, or neck should be ordered, and repeated; -2dly, if the mischief arises from the heat of the fun, the Eye should be bathed morning and evening many times with cold water, in this manner Boerhaave fucceeded. -Baths should be used often; if from nightreading the disease drew its origin, so that the fenfibility of the retina, which in this case is usually very great, should be lessened: 3dly, if a plethora concurs, we must live moderately, and call in those aids necessary to reproduce the catamenia and hæmorrhoids.-In a phrenzy by an hæmorrhage from the nose the patients are chiefly freed from these phantasmata.

# 2. Suffusio reticularis. L.

#### RETICULAR SUFFUSION.

In this species, the patients seem to see before their Eyes thin and branching shadows connected one amongst another like a net, and compare these to spider-webs, plucked wool, and things of this sort.

They wandered far from truth, who supposed filaments in the crystalline lens, aqueous humor, or Cornea, and who confequently recite in the history of this disease, that these filaments change their place even should the Eye be immoveable; as La Hire himself thought; for this happens in another variety, viz. in the suffusio scintillans, which has its seat altogether different.

The reticulated fuffusion is either fleeting or permanent;—the first proceeds from
the obstruction of the arteriolæ of the retina;
the second from an error loci, or deviation
of the blood into the serous or lymphatic
vessels of the retina; nor must we think
that this lymphatic congestion merely is
sufficient to produce this phantasma, seeing
that

that the arteriolæ themselves in healthful men paint no shadow in their systole.

The cure feems to be fimilar to that of the fuffusio myodes. A revulsion of blood from the fuperior parts; a diminution of the extreme fenfibility of the retina; bleeding, bland and moist food, glysters, repeated baths, abstinence from study, from the use of microscopes, from continual looking at minute objects, and chiefly light; whence gold-smiths, embroiderers, engravers, glassmakers, &c. and clerks, amanuenfes, and those who are studious, in order to preserve their fight, use glasses of the longest focus, or even plain glass colored, green, blue, or yellow, which mitigate the splendor of a strong light, and in reading or writing receive only the light from the fide, or by the shade may be moderated so that the enfibility of the retina may be decreased.

3. Suffusio scintillans, Marmayge HIPPO-CRATIS; marmaiges, with some; splendores, and sulgura, with the Latins; Berluê éntincelante, ou rayonnanté.

SCINTILLATING, OR SPARKLING SUFFU-

There are three or more varieties of this species, but some are fleeting, or companions of other genera, which therefore do not constitute any species of suffusion; one is a constant and principal symptom which is properly the suffusion scintillans.

A.—radians, radiating.—Amongst those of short duration is this suffusion, which differs in its seat, symptoms, and mode of cure from the rest.—For in this, when we see any luminous object, as a lamp, very long lucid rays seem to be stretched from the object itself, some upwards, others downward;—the object is often multiplied, and at the same time seems to be broad, rather round, and surrounded with smaller rays—this symptom happens to all men in health, if they look at a burning slambeau in the night, removed many fathom from them, the palpebræ

pebræ almost closing, if the head inclines downward the inferior rays vanish; if it is erected upwards the superior; if they open their Eyes altogether they all fly from the sight.

But this suffusio radians is a symptom of the epiphora, Ophthalmia humida, and amblyopia, which accompanies great sensibility of the retina, as they are attended with tears, for as in these affections the tears continually overslow, not only the rays seem to be extended upwards and downwards at the sight of the slambeau, star &c; but also the image of any object in the day time is clouded, looks muddy, which the aqueous collections, springing thro' the Cornea and cilia, excite, as every one in weeping has experienced; but how the slambeaus appear multiplied is to be enquired into when we speak of the suffusio multiplicans.

The cure is to be fought for from the the cure of the epiphora, and Ophthalmia humida, which are two principal symptoms; for the suffusio radians ceases on the tears being wiped away.

b .- Coruscans, vel fulguran.

CORUSCATING, OR ILLUMINATING SUF-FUSION.

This is another fuffusion of short duration, which depends upon an external cause, as a stroke of the Eye, or from an internal one, as cephalalgia, vertigo, phrenzy, epilepsy, &c.

It is commonly known, that if the Eye be pressed from the side with the singer even in dark places, in the other part of the Eye a vivid light appears, and that uniform, and semicircular, which recedes with pressure; but if the Eye receives a blow, then a brighter radiating light illumines the whole Eye; as in blowing the nose forcibly, or also in sneezing a similar corruscation may be observed.

I will relate accurately what I have obferved in myself. As often as the cephalalgia attacked me from the southerly constitution of the air, (its humid state) or from
a plethora, I foresaw it for some minutes,
for coruscations fortel this,—I saw for
the space of seven or eight minutes,
even the Eyes being shut, lucid lines, as if of

fire, but interfected at acute angles, inflected, and many parallel to each other; which together form a femicircle; what is particular in those lines is the continual tremulous motion by which they are agitated; which motion is much more frequent than the pulsation of the arteries, but sometimes one, sometimes the other of these arches sparkle;—the circle, the effect of these, is a little larger than the circumference of the whole Eye; and this phantasma vanishing the pain of the head came on.

Amongst those who are ill, not any thing is more common than these coruscations of the Eyes; many men sound asleep in the night, if unexpectedly rouzed, should they open their Eyes, will behold this manifest brightness or splendor. But in keen and quick passions the Eyes have been seen to grow bright and luminous by those who were standing by; also in anger, according to Ovid "Oculus quoq pupula duplex sul-" minat, & geminum lumen ab orbe re-" dit".—The Eyes shine strongly in cats struck with the æstrum venereum; viz. in the month of February when electricity is most powerful.

It is not probable that the coruscations proceed from the simple vibration of the nervous sibres of the Eye, for nothing is less adapted to such motion than the nervous sibres themselves, not any thing is softer or more lax, than the retina, which is pulpous, and flaccid. What therefore can emit the light except the force of the electric sluid driven with violence into the canalis petitianus, which happens in coughs, epilepsy, sneezing, rage, and also its concussion and friction, as in a blow or pressure of the Eye?

How that circular convolution of rays can be excited is not easily to be accounted for, unless from the canalis petitianus being intersected with valves, very aptly resembling the delineation of that light.—But the tremulous motion of the luminous arches, seems to bespeak a similar motion in the crystalline lens, or in the muscular sibres of the corona ciliaris moving the lens; the cilia and palpebræ are subject to these very quick tremulous motions in the nystagmus, which motion in the uvea is called by Mauchartius, hippus.

c.—Danaës.

AURIPLUVIAL, OR IGNIPLUVIAL SUFFU-

(Thus called from the story of Danaë and the golden shower; -- ) a true suffusio scintillans, which is permanent, has these appearances.-The patient placed in a strong light particularly a person in years, or those whose Eyes are very bright, continually think they observe lucid points, or small spots before them, which fly in different directions, fometimes one way, fometimes another; nor are they agitated by the head being moved, as la HIRE, and his copier BOERHAAVE suppose, but continually if the Eye remains immoveable, they feem to fall flowly downwards, like a golden shower, appearing very thick before the Eyes; which always defcend vertically, in whatever fituation the head is placed; whether erect or laterally inclined .- I experienced this in myself for years, and have observed it also in others, particularly in those who have devoted themselves to night study; and in an invalid who was driven almost to a state

a state of melancholy for many years from that cause.

If we can place any confidence in accounts given by authors, the same men commonly see lucid streaks, serpentine, sometimes branching, shining in the middle, in the margins shaded, which some have taken for a wandering reticulated suffusion; but the case is different, since in the reticulated species the slaments do not change their situation, and in the axis they are more obscure than in the margin, the contrary to which happens in this suffusion recited by LA HIRE.

I cannot agree with LA HIRE and BOER-HAAVE in concluding that the cause of this disease is to be found in the aqueous humor; it cannot consistently with that opinion be understood why golden, or sparkling showers should descend in every situation of the head.

The cure seems to consist totally on relieving the too great sensibility of the retina, without which there are no phantasmata, and at the same time diverting the melancholy attention of the mind, which greatly aggravate the disease. The fuffusio Danaes happens often in the use of the extract of white henbane; but this desisted from, the disease also goes off.

# 4. Suffusio colorans. B.

### COLORING SUFFUSION:

This is a difease which veils objects in colors foreign to their nature, black and white excepted, which are not properly called colors.—The colors are seven; red, orange, yellow, green, blue, indigo, and violet.

A drop of red blood falling upon the retina, and rendering it black, intercepts all light; whence obscure and black phantasmata: but if the diluted cruor should transmit red rays, the patient will see a red spot, as it sometimes happens all things looked at through glass appear red.

The light of a common candle is yellow, whence white objects appear by that light, yellow; blue ones, green; and pale yellow or straw color, white.

Those who read a long time in the sun soon see the characters tinged with intense reducts; if within the shade of trees, they

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look at fnow; whilst the fun shines the snow

appears blue.

Those who have their Eyes affected with the yellow jaundice, do not therefore see objects as if they were tinged yellow, but less clear; because that color, not suddenly intense, affects the Eyes, and then all objects gradually tinctured with that color diluted suffer an equal diminution of natural shade, and from being gradually accustomed to that natural color, they appear to preserve at least the order if not the degree—but if the Eyes should suddenly grow yellow, all objects would as suddenly appear of that color, they in a short space of time this image would, from custom, vanish.

Valsalva observed a man who seemed continually to see palaces beautifully decorated and colored; it is probable that he had the reticulated suffusion combined with the colored, as the pupil with respect to the crystalline lens might have been too patulous; whence the Eyes, like the triangular prisms, diffused over all objects the colors of the rain-bow.

5. Suffusio

# 5. Suffusio metamorphosis. B.

TRANSFORMING SUFFUSION.

This metamorphosis is a change of figure. -Figure is the limit of the extent of objects-Limits of objects extended are changed, if the fituation, proportion, number, or magnitude of the parts should be changed by addition, detraction, translation, &c.

A woman in the fits of epilepfy, not only labored under diplopia, but also seemed to fee horrid spectres, a bluish green atmosphere around all objects, and illuminated objects themselves much larger than they really were; fo that a fly appeared as large as a fowl, a fowl equalled the fize of an ox .--The use of castor took away this suffusion, but a vertigo followed which caused all objects to be depicted green.

## 6. Suffusio nutans.

### DISTORTING SUFFUSION.

A celebrated physician of Narbonne, eighty years of age, labored some days under a fuffusion, by which means all objects appeared to him inflected, flexuose, and bending to S 2

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one fide or other, so that people who stood before him seemed to have their bodies or legs distorted; at the same time so inclined to either side, they seemed ready to fall, of which he at first apprized them, and endeavoured to support them; the affection vanished, but his sight remained more obscure than usual.

## §. 2.

7. Amblyopia crepuscularis; amongst the Greeks, Hemeralopia; amongst the moderns, Nyctalopia; Visus diurnus, Boer-HAAVE Collect. Acad. tom. 1. p. 507. L.

### CREPUSCULOUS AMBLYOPY.

This is a difease in which the vision is obscured and confused at twilight, either morning or evening, in the same place where the Ætopes can see distinctly. Ætopes are those who, like eagles, see things distinctly, near at hand, far removed, in mid-day, or in twilight, &c; in one word, those of perfect, or the least impersect sight of all.

Fowls labor under the crepusculous amblyopy, whence, except in a strong light, they

they cannot see those grains on which they feed, and thus go to rooft in the twilight.

This disease is opposite plainly to the meridian amblyopia, under which all owls labor; which indeed see but little in mid-day, though in the night distinctly.

This disease two years ago was epidemic in the neighbourhood of Montpelier; chiefly in towns near to any river, as that which ran by Suave, Somediras, and Sanctus Hippolitus, where particularly the soldiers keeping their nightly watch in the open air, the atmosphere moist and cloudy, become hemeralopes.

But fince manifold experience has taught us, that they were cured, in whom the fuperfluous ferum was evacuated out of the blood by cathartics, emetics, diuretics, veficatories, and fuch like applications, one or two bleedings having preceded; it is very probable that this species proceeded from a redundancy of serum in the sanguineous mass, which particularly relaxed the organs of vision.—It is not certainly difficult to conceive, that from a moist cloudy atmosphere in autumn, the perspirable serum

might be retained in the mass of the blood, and thus become too redundant;—nor why by the evacuants before recited it might be eliminated, and thus the disease be cured;—but why that serum should affect the organs of sight, rather than those of hearing, touching, and some others, it is difficult to understand.

Some authors enumerate other species, or rather varieties of this, in which there may be different, nay indeed various phænomena, as the contraction of the pupil, rigidity of the retina, and such like; but it is by no means clear that they have been accurately observed, on that account therefore they are better omitted.

From what has been faid the cure is obvious;—by every means we must endeavour to restore the natural tension to the retina; and for this purpose, the superabundant serum should be absorbed thro' the bibulous veins, and derived to those strainers of the kidneys, intestines, skin, to the ulcerations made by blisters behind the ears, exsiccating and diaphoretic food lending at the same time its aid.—Drastic emetics may in certain cases

cases do more harm than good, since life from this disease is not endangered; but from emetics, unless the subjects are robust and inert, that the pituitous can be cured, is much to be feared.

BOERHAAVE recites a variety of this difease which depends upon an immoveable contraction of the pupil, whilft at the same time the retina enjoys its usual fensibility;in an healthful state the aperture of the pupil answers reciprocally to the sensibility of the retina, and therefore it is a contradiction to think that the pupil is not dilated in the fame proportion in which the intenseness of light decreases; nevertheless it may happen that the aperture of the pupil, because of the fingular infenfibility of the uvea, may not observe the same law, and then at that time there is a disease which it is necessary should be cured, as the antecedent cause of the difease is a rigidity of the uvea, but not an infenfibility. The reason why I recite this is, because, as proved by HALLER, if the uvea should be pricked with the point of a needle, which I saw in the operation for a cataract, and HALLER himself tried in animals, the readily infer that it is supplied with none or very few nervous silaments.—But Boer-HAAVE knows no remedy for this species, particularly if, as is usual, that rigidity happens in old men.

But that illustrious professor adds some things relative to a young Englishman, who faw very well in the day time, fo long as the fun was above the horizon, but, at its fetting, clouds appeared before his Eyes; after its fetting, to him all was darkness; indeed even in his bed-chamber illuminated with a number of candles, nor by the light of the moon however splendid, to which the pupil was immoveable; the reason of this phænomenon is not from any connection between the light of the fun, as BOERHAAVE thinks, and parts of the Eye itself, nor vapors ascending in the night agreeable to the opinion of BRIGGS; but it is from the immense difference between the splendor and activity of the folar light, and that of a candle, and the moon. The force of the folar light to the force of the light of a candle at fixteen feet distance, according to Bouof the full moon as 374000, to 1. D. Eu-LER, Mem. de l'Acad. de Berlin, anno 1760, p. 299; there is no wonder therefore, if the force so much greater should be sufficient to strike the retina which so much less force did not effect.

Dr. SAMUEL PyE has enumerated, in the London Medical Observations, the accounts given by antients of the nyctalopes; some of whom fay, that the nyctalopes are those who see by night, others that they see better by night than day, and if the moon shines they are blind. Some again call those nyctalopes, who see more obscurely in the day-time, at the fetting of the fun more clearly; but when it is night much better; or on the contrary, by the day they fee little, but in the evening, or at night, they are blind. Others, that they fee by day, but at night, or in the evening become blind; that they fee better at night than by day. - Celsus fays, that the patients, by day, fee very well, but at night they are blind. These contradictions the Doctor attempts to reconcile by referring them to the class of intermittents, the paroxysms coming on at different periods, some in the day, others in the evening; and this furmise

mife feems to arise not only from the intermisfions he observed in the disease, and the account given likewise of a case by Dr. PARNHAM, but also from its yielding to the Peruvian bark .-The conjecture it must be confessed is very ingenious, and the reasoning plausible, if we are allowed to have recourse to analogy; for certainly the retina itself may be subject to the same periodical attacks as other parts of the human machine, and there are few practitioners who have not feen local intermittent complaints of the nervous class. But this confusion might be done away if we would be careful in making proper distinctions with respect to the disease and its principal symptom.-They should be marked according to their appearances; when the fight is only partially obscured or diminished, it should be considered as an amblyopia, when totally loft, an amaurofis.

Now that disease where the fight is only diminished in the night should be termed, nocturnal amblyopy, in the day, diurnal.—When a total loss of fight is sustained, the same distinguishing epithets might be added to the amaurosis, according to the times of the attack.

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8. Amblyopia absoluta; Amblyosmos Hippocratis; Amblytes, Aretæi; Visus obtusus, Boerhaave; Visus confusus, of some authors among the French; Vuë basse, foiblesse de Vuë, mauvaise Vuë.

ABSOLUTE, OR COMPLETE AMBLYOPY.

The myopes, presbytæ, and the rest of amblyopes treated of above, in some certain distance and position of the object, can see distinctly; and their sight is not obscured, except relatively to other distances, times, and situations; but this species imports an absolute obscurity of sight, in every place, time, and situation. The myopes, presbytæ &c; as they can see with spectacles acutely, may safely be without them, but the absolute amblyopes cannot.

This feems to depend on the diminished fensibility of the retina, such as commonly happens to all men about the age of sifty, and as they grow older encreases;—chiefly in those who are concerned in employments in minute objects, who write by night, and use their Eyes improvidently.

The horopter, or bounds of distinct vision,

is shortened every day, by two or three inches within every ten years. Objects attentively considered, appear to them confused; characters of books seem to be doubled, moved, and decustated; the Eyes wearied are fretted, and shut; objects are removed from the Eyes as in presbytia, particularly if the afflicted have undergone the operation for a cataract. The pupil, or to speak more properly, the uvea is scarce moveable, a sudden transition being made from dark into light, which is a symptom of diminished sensibility of the retina.

In this disease the common people attribute it to repeated bleeding, women to frequent child-bearing, but sew to encreasing age; useless remedies from various medicines are proposed, which are contradictory to each other; for some oculists recommend resolvents, some extol water merely, rather cold, and say that from spirituous applications the retina is too much exsiccated; but the use of spectacles, in every one's opinion, is necessary, as by the help of these the rays collected affect the retina more forcibly; whence clearness is restored to the sight, and with that, distinct vision, which advantages are to be expected from them alone.

The horopter, or bounds of vision, is the smallest distance from the Eye to the object, which is seen distinctly; the distance is greater in proportion as the object is larger, and the light more intense.—Commonly the limits of vision is taken from the usual distance between the Eye and the characters we write; and that amongst the ætoptes is about eight inches; but the horopter for larger objects, as for destinguishing the faces of men, some feet.

Those who accustom themselves to older spectacles, as those of shorter socus, they are forced every ten years to change them for still older, which is very inconvenient, for the light is so much the more curtailed, viz. those who use assistant glasses have a socus of six feet, they read best at the middle distances between eight inches and six feet:—but those who use spectacles of six inches, they cannot distinguish characters placed beyond six inches, unless they should be much larger.

Hence comes this rule of the greatest moment, that in fact we should first exhibit junior spectacles or affistants; and not, unless obliged, have recourse to the older, and then only by degrees-those not accustomed to spectacles should try many, and use those in the first place, which exhibit the objects clear and distinct, but not those which encrease the sensibility, if they are a double convex, or diminish, if a double concave, they are necessary for the myopic; 2dly, those which weary the fight in the least degree. Besides perspicilli, or nasal spectacles, which are more convenient, or hand-glasses-the amblyopes use, with advantage, opera glasses, formed of a double convex object glass, and a double concave eye glass of smaller diameter; but the tube should be shorter for the myopes, longer for the presbytæ; all Eyes are equally affifted by these glasses, seeing that they can exhibit the objects clearer and more distinct.

they counce differently characters placed

## §. 3:

AMAUROSIS,—Gutta serena, of the Arabians; Cataracta nigra, of the Germans; Offuscatio, Cornarii in Ætium; Cæcitas Meroni Directæ; Amblyopia Rumphii, Compend. Medic. Goutte sereine.

AMAUROSY, SUPPRESSED OR ABOLISHED VISION, WITH PUPILLARY IMMOBILITY, AND OCULAR INOPACITY.

This disease has for its principal symptom a suppression of light, and immobility of the pupil, without any sensible opacity of the Eye.

It is called gutta, because it has been thought to arise from a dropping of the lymph;—serena, because it does not cloud the Eye in the same manner as a cataract, and often a caligo.

It differs from the amblyopia absoluta, from the total suppression of vision;—if the sight can by no means be recovered, it is called abolished, otherwise, suppressed.

In the amblyopia absoluta, and caligo, the patient

patient at least discerns light from darkness, tho' not in an inveterate amaurosis.

The principle of an amaurofy is fituated in the brain at the thalamus nervorum opticorum, in their paffage, or wholly in the retina,—therefore fensibility is wanting in the Eye, in a cataract the light is denied ingress into it.

The amaurofy attending fyncopes, and comas, arifes, because the mind having suffered from the danger of the heart and brain great commotions, perceives not the impressions of light; or in other words, we should rather say, that the mind from the sudden affection of the heart and brain, occasioned by the circulation of the blood being impeded almost to total cessation, is deprived of the means of baving any sensations of light conveyed to its perception.—In other cases the cause of an amaurofy is the imperviousness of the optic nerves, either in the thalami, or in the whole retina, or the nerve may be obstructed, compression, or the nerve may be obstructed, compression, divided, &c. in its passage.

If the found Eye is shut, and the blind one opposed to the light, the pupil is in no-wise contracted, sometimes it is dilated, and

this is the only motion which remains, and indicates a perfect amaurofy.

By how much less is the mobility of the pupil in an amaurosy, by so much greater is the diminution of sight, so that if a fourth or third part of the motion of the pupil remains in the light, a fourth or a third part of the vision will also continue.

The phlegmatic, cachectic, aged, those with weak nerves, and who have been subject to severities, or excesses, and persons laboring under irregular or suppressed periodical discharges, as the catamenia in women, the hæmorrhoids in men, &c. are the principal subjects of this diforder :- in all these cases arising from any known cause we should pay particular attention to that fource, and adapt our remedies accordingly. Vapors of hot spirits of wine, or coffee, passed thro' a tube two or three times a day are confidered as ufeful external applications, nor have they failed of fuccess sometimes when joined with a cooling light diet, and repeated purging .- Sternutatories are sometimes of singular service; aromatics, carminatives, and attenuants, particularly mercurials, in small doses, are recommended.

Some advise volatils, chalybeates, mercurials, cephalics,

cephalics, and nervous medicines;—cupping also with scarifications on the back part of the head has formed a cure.—Salivation has also succeeded; small doses of calomel, or the solution of corrosive sublimate in a diæetic decoction may be persisted in for some time, and will answer more agreeably and safely the purposes of salivation.

MEAD confiders this difease as owing to three causes, the most common of which is an obstruction gradually formed in the arteries of the retina by sizy blood; sometimes to a palsy of the nerves of the same membrane, and also occasioned by a pressure on the optic nerves, either by an extravasation of a gelatinous humor, or by an hard tumor formed upon the place, where they pass from their thalami into the Eyes.

He endeavours to shew how these species may be distinguished.—A gradual dilation of the pupil is a symptom of an obstruction of the blood vessels by a fizy blood.

A palfy of the nerves, with which they are frequently struck at once, seldom or never occasions this dilatation;—but the pressure on the optic nerve, either by an extravasated humor, or a tumor gradually encreasing, is attended with a wider pupil.—The second and third species may be deemed incurable; the there may be some faint hopes of relieving that sort which proceeds

rom a palfy of the retina, by anti-paralytic remedies, of which the principal are aromatics, chalybeates, and fetid gums. But in removing obstructions of the vessels he advises, first of all, bleeding both from the arm, and jugular vein, and that repeated according to the degree of the disease; cupping glasses also with deep scarifications should be applied under the occiput; in order to let out blood this way from the lateral sinus of the brain; cathartics should be given to purge off the gross humors, for this purpose calomel is most eligible joined with other purgatives, or rather taken by itself, and some gentle cathartic a few hours after.

This method often succeeds when the complaint is recent, or beginning; but if of long standing, falivation raised by mercury given internally is necessary.

Electricity has been fingularly successful in cases of amaurosy, in one case recited by WARE a gutta serena was cured by only three electric applications, each of which was continued about a quarter of an hour. The mode of electristying was first by carrying a stream of electric sire thro' the Eye, and afterwards by drawing sparks from all the parts which surround it.

We have some cases related by Mr. Hey in the Lond. Medic. Observations, tho' they differ from the above in the following material circum-

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stances.

stances.—This disorder came on more suddenly than those described by Mr. Hex; the blindness was more entire, the Eye-lids more affected, and the cure more speedy.

Electricity chiefly promifes to be of the greatest use in recent cases of amaurosy, in those of two years, or longer standing, it has not often been successful, notwithstanding it should be tried, and persevered in, since we have one case of three years continuance relieved by it, as related by Mr. Hex.

9. Amaurosis venerea, Zacuti Praxis, Cent. 5.
Obs. 49; Ballonii Paradigmata 7. vel
Sepulchretum Boneti Obs. 4; also BoERHAAVE de Morbis Oculorum. L.

### VENEREAL AMAUROSY.

This species brings on either hydatids in the retina, which takes away the sight, and Boerhaave thinks that it has been cured by mercurial inunction; or excites exostoses pressure that the optic nerve, which is incurable; or creates a steatoma in the brain; according to the observation of Ballonius. Zacutus saw this species come on a few hours after impure

impure coition, with little ulcers, and vari of the face.—An Englishman, by a mercurial salivation, cured of an amaurosis, saw for some time all objects doubled;—SMITH's Optics.—This species is attended with pain and pervigilium.

PLENCK describes this disease—a blindness without any apparent fault in the Eye, arising from venereal virus;—he also divides it into two species.

### I. AN AMAUROSY FROM IMPURE COITION.

This was seen to arise a little time after coition; he says, Zacurus observed it to appear a sew hours afterwards, with ulcers and vari of the sace;—in this case the purging and gummous mercurial pill should be had recourse to.

### 2. AN AMAUROSY FROM AN UNIVERSAL LUES.

This species is attended with pain of the Eye, and pervigilium; which arises from an exostosis pressing the optic nerve, or takes its origin from venereal hydatids of the retina and optic nerve; it is said to be cured by salivation.

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The mercurial gummous pill should be tried, or corrosive sublimate with a decoction of mezereon.

BOERHAAVB, HEISTER, BONNET, and SMITH in his Optics speak of cases of amaurosy cured by salivation, as also does the celebrated Schmucker.

bula, 50; Gutta ferena a menostasia, St. Yves page 343; Amaurosis gravidarum St. Yves.—A suppresso Hæmorrhoidum sluxu. the same author; menstruo, &c, page 338.

PHLETHORIC AMAUROSY.

This is attended with fymptoms of plethora; fometimes it begins with a troublefome pain of the head, deep-feated, a painful weight refiding in the fundus of the Eye.

This species is sometimes cured.—Judeus, a physician at Burdigala cured many by opening the frontal vein, and permitting an efflux of blood till it stopped spontaneously; it is often of service to open the jugular vein after the cure of acute severs.

St. YVES

St. YVES recommends bleeding in the foot and emenagogues; then viper broths, millepedes, and ophthalmic water are to be administered.—That species of amaurosis is to be referred here, which follows the sanguineous apoplexy, and acute fevers.

In all cases where a sanguineous plethora is prevalent, a free use may be made of the lancet, and those evacuations should be again reproduced should this disease continue from their obstruction.—Bathing the feet in warm water, semicupia, &c; and in cases of the hæmorrhoids, when we want to solicit their return, the application of leeches to the hæmorrhoidal external veins, and round the anus, should not be neglected.

If a ferous plethora should exist, purges, and diuretics, with blisters will be proper, emetics may also be administered if indicated by any diforder of the stomach.

After the necessary, and sufficiently copious evacuations have been procured, chalybeates and bark, with bath waters are to be persisted in, and electricity will help to expedite the cure.

pressa. Amaurosis exanthematica—A Scabie suppressa, BAGLIVI, Pag. 215; Ephem. nat. cur. ab. Achoribus repressis, Hoffmanni Tom. 3. P. 339; a Plicâ resectâ, vel retentâ—Stabel, Hist. 6, 5. L.

### EXANTHEMATIC AMAUROSY.

This species deduces its origin from exanthematous complaints, either repelled or retained.

In this place may be fet down the amaurosis, which depends upon alcalescency, and acrimony of the humors; in which therefore baths, acid waters, diuretic and diluent ptisans are recommended, as milk, whey, millepedes, &c.

Where, from the furface of the body, acrid humors are repelled, they should be carried off by aperitives and proper sudorifics, and as commonly this accident happens from a general weakness in the system, that should be supported by cordial corroborants, and such evacuants persevered in as least weaken the tone of the stormach, or the nervous system in general—if periodical evacuations are suppressed, their return should be promoted, but should that be impracticable,

sticable, proper artificial discharges should be substituted, as setons, perpetual blisters, issues, &c.

12. Amaurosis a narcoticis—Raii Synopsis plantarum de Stramonio.

AMAUROSY FROM NARCOTICS.

The juice and leaves of the stramonium, thorn-apple, applied, create a mydriasy, and amaurosy.

In the Molucca Islands the amaurofy is familiar to strangers, which is attributed to their eating of hot barley, believed in these regions to throw out a narcotic vapor, according to Bontius, who, in this species, recommends the liver of the squali, by some thought to be scate, called lamia.

It is known that acids, as vinegar, taken internally, is an excellent antidote for these poisons.

13. Amaurosis Foricariorum—RAMAZINI de Morbis Artificum. L.

FORICARIOUS AMAUROSY, OR FROM CLEANING OF PRIVIES.

Whoever stays in privies whilst they are cleaning, when they have remained four hours, unless they retire, as well as keep the Eyes free from light, and stay at home with them shut for twenty-four hours, and wash them with warm water, become forthwith blind—and without this caution nothing is more frequent among the people of Padua, than for those cleaners of privies thus to become blind.—The Eyes pain them in the privy, grow red, and a little cloudy—but that most offensive stench neither wounds the nostrils, creates nausea, nor hurts any other part except the Eyes.

That this misfortune may be avoided, concave perspicilla adapted with great judgment, should be applied to the Eyes, such as are used in luscity and strabism; but the glass should be most accurately closed. County rus - which if prefent when the

14. Strabismus Bussoni—Mem. de l'Acad. Scienc. 1743, 5. Spec. Porterfield, Edinburgh Eslays, Tom. 3. P. 298. L.

### BUFFON'S STRABISMA JANGAMI

The name of this is taken from the difcoverer.

This species depends upon the weakness of one or other of the Eyes; as because when the distance may be unequal to which the sight of both Eyes is to extend, we are accustomed to direct the stronger Eye to the object, and omit the exertion of the weaker, for it has no use in discerning objects when they are removed to a distance requisite for the other. Thus if the right Eye cannot see beyond half a foot, and the left Eye beyond a foot, we look at objects with one Eye only, hence a strabitmus, which is very difficult to cure.

The debility of either Eye is either natural, then incurable, or depends on a stroke of a palfy, or epilepsy, &c. See the bistory of these diseases, and modes of cure.

The varieties of the strabismus are,

SECTION

CONNIVENS

Connivens—which is present when the axis of the Eyes decussate one another.

DIVERGENS—when the axis of the Eyes do not converge, but form in level lines.

INEQUALIS ALTITUDINIS—when one Eye looks upward, the other downwards; this is most unpleasing to the sight.

# SECTION THE ELEVENTH.

THE CHOROIDÆAL MEMBRANE.

# §. I.

1. Ophthalmia choroidæa—Ophthalmie interne de la Retine; ou de la choroide. A.

### CHOROIDEAL OPHTHALMY.

THIS is known from the Eye's incapability of bearing light, a constriction of the pupil, an epiphora, with or without redness of the conjunctiva; to these may be added obstinate pains of the hemicrania.-This species almost always happens on the ninth day after the operation, by which DAVIEL and JANIN extract the cataract by the circular incision of the Cornæa, and which continues about fifteen days, and the last days when the patient then elevates his Eye-lids he fees objects as if sprinkled over with snow. If the patient dies some days after the operation, the veffels of the choroidæal membrane are found red, obstructed, and sometimes

puriform jelly.

When this proceeds from internal causes, the same method should be used as in the chemosis; but towards the end it is of great use to drop into the Eye some of the distilled camphorated water; -but after the operation, either for a cataract, empyelis, or unguis, the inflammation abates either by the use of flea-wort, fenugreek, quince water, or the albuminous collyrium-i. e. the white of an egg shook up with rose-water till it raises a froth, -and diffused over a portion of lint, with which, being cold, the Eye is to be fomented immediately after the operation; and repeated three times a day; a bandage must then be applied for two days, in order to prevent the ejection of the vitreous humor, if a cough, fneezing, or vomiting fhould supervene.

minution of the ball of the Eye, and at laft

### SECTION THE TWELFTH.

### BULB OF THE EYE.

# §. 1.

Part. 2. Chap. 6. Exophthalmia hypopyica, Boerhaave.

### PURULENT EXOPHTHALMY.

THE hydropic exophthalmy terminates in this species, if the inflammation, arising from acrid serum poured into the Eye, runs into suppuration—after very severe pain, inflammation encreased externally and internally, great tumesaction of the membranes forming the white of the Eye, inversion of the palpebræ, an hot and acrid epiphora, at length the Eye grows muddy, and a suppuration, as also a destruction of the internal parts ensues.

In process of time the Eye bursts, and is exulcerated with efflux of pus, alleviation of pain, a successive detersion of the parts, a diminution

minution of the ball of the Eye, and at last

This species requires the following mode of cure,—the pus being perfectly formed, if there should be a very violent inflammation, and most excruciating pains, the Cornea should be opened in that part where the confined pus appears to be forming a passage for itself;—or in the most dependant part, if the matter points not particularly to one more than to another—by that means a stop will be put to those acute pains arising from the procrastination of spontaneous rupture—a lancet being pushed beyond the uvea, the pus evacuated, and the Eye cleansed by abstergent collyria, a cicatrix is at length formed.

2. Exophthalmia cancrosa—Cancer de l'œil, Par. 2. Chap. 1.

CANCEROUS EXOPHTHALMY.

Viscid blood obstructs the vessels of the membranes of the Eye, and makes them very thick, and as it were, sleshy; the inslammation and pain in the beginning is moderate, but the disease gradually encreasing, they

they are also augmented; the fight is lost. Grievous is indeed a disease of this complexion, as a cancer of the membrane of the Eye, which, altho' sometimes it may not be exulcerated, nevertheless in time occasions severe pains with a fever, and terminates in death.

Health, or life can only be preserved by extirpation. See St. Yves.

Dr. OLAUS ACREL extracted a cancerous Eye, which had acquired an enormous bulk; —he first made an incision of an inch in length, thro' the external angle, and after dissecting the bulb from the Eye-lids, passed a thread thro' it, by which means he was enabled to elevate and extract it with ease—the Eye by degrees was silled with a sleshy substance, and sive weeks after the operation the patient perfectly recovered.—The extirpated Eye afforded no marks of organization. Med. Journ. Lond. V. 3. P. 7.

TRAUMATIC EXOPHTHALMY.

The Eye being struck by a stone, cricketball, club, or any weapon similarly mischiev-

<sup>3.</sup> Exophthalmia traumatica—MAITRE-JAN, Par. 2. Chap. 10. D.

ous, is not only bruised, with a rupture, and confusion of the interior parts; but also the common membranes, with the muscles, and other connecting bonds on which the healthful state of the organ depends, being ruptured, it sometimes rises from its orbit, and falling down, is pushed out more or less; indeed in very violent contusions, the support of some of its parts, yet entire, depends upon the remains of those which were ruptured.

In difeases of the slighter nature an agglutination, or conjunction of the ruptured parts is to be attempted, the Eye being replaced within its orbit—but in those of a more severe kind, because an union of the separated parts is impossible, the sew vincula which remain being cut asunder, and the hæmorrhage restrained, we must subdue the sever and instrained, we must subdue the sever and instrained, the parts will be cleaned by pus, and a cicatrix formed in proper time.—See MAITRE-JAN.

### 4. Exophthalmia critica—D. CHAPTAL obfervante. D.

#### CRITICAL EXOPHTHALMY.

This was observed in a man afflicted with an universal tetanus, which was judged to arise from the effect of morbid matter falling on the Eye; the bulb of the Eye swelled in a manner most wonderful to the size of a man's fist, rising out of the orbit, and pouring from its rupture, most copiously, ichor, mixed with pus—this requires the remedies of the Exophthalmia purulenta.

5. Exophthalmia a Conatibus.—Ecpiesmus ex nisu parturitio, PAULI ÆGINETÆ, Aëtii; Ecpiesmus ex certamine Athletico, Aëtii. D.

Exophthalmy from strong Exer-

Sometimes the Eyes are so far pressed outward, that they remain prominent. Protuberances of the Eyes happening from the efforts of labor from child-bed pains, are often cured by the succeeding discharges, and lochia. It is therefore necessary that we should endeavour to assist these.

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6. Exoph-

### 6. Exophthalmia a Steatomate.

STEOTAMATOUS EXOPHTHALMY.

There is a curious cure recited in the London Medical Observations, of an Eye extracted by Mr. JOHN HUNTER, in which not the least remains of the humors were found, nor any of the coats, but the sclerotica, which was filled in every part, except in the anterior chamber, with a steotamatous kind of substance, and a loose fpongy flesh, whose fibres had no particular direction; there was likewise a considerable quantity of calcarious earth lodged in the different parts of it. At first the Eye was considerably diminished in size, but in process of time, before extraction, much encreased. From a fimilar affection of the other Eye the patient died; and from the appearances after death, on examining it, there was reason to conjecture that the disease began in the vitreous humor-upon which it is supposed the patient might have probably been faved, had that humor, in the early period of the disease, been evacuated. See the particulars, Lond. Medical Observations, vol. 3. page 120.

### §. 2.

7. Amaurosis traumatica—see Ant. Mai-TRE-JAN; L. a vulnere Oculi Obs. 17, 18. Centur. 5. HILDANI Observ.—A Commotione Capitis. HILDAN. Centur. 5. Obs. 8. Schenckii, Obs. pag. 168. Ex Bombardæ explosione. Schenckii, p. 168. ex Vulnere Capitis. Marcell. Do-NAT. Histor. Mirab. L. 2. pag 76.

#### TRAUMATIC AMAUROSY.

This complaint happens suddenly either from a wound, or blow, and then it arises from inflammation, and compression made by the blood, or by the globe of the Eye distracted within—or a division of the nerve. See Heister on Wounds of the Eye.

But if afterwards an amaurofy creeps on by degrees, it belongs to the paralytic species, which requires a different mode of treatment.

HILDANUS faw it arise from sneezing.

### SECTION THE THIRTEENTH.

THE OPTIC NERVE.

### §. I.

1. Suffusio dimidians objecta.—ABRAHAMI VATER Dissertatio de Visûs Vitiis, 1723, Wittembergæ.

DIMIDIATING SUFFUSION, OR CREATING
A DIVISION OF OBJECTS.

THIS author relates three cases of this disease, and deduces the theory from a compression on the brain, and a supposed decustation of the optic nerves—See Collection Academ. tom. 5. p. 292.

### §. 2.

DIPLOPIA—Suffusio multiplicans; visus duplicatus of Authors; Bèvuê—Double Vuê.

DIPLOPY, OR DOUBLE SIGHT.

This is a depravity of fight by which the fame objects appear double, multiplied, or often repeated.

That symptom is almost always of short duration, and we bear it freely, as in experiments, whether in that case looking with one or both Eyes.

So long as the object is not within the distance of distinct vision, two images opposite to one foramen or aperture, and having fallen upon the Eye, are not united in the retina, but in distinct places; and therefore they have not the optic point as a centre, whence the image appears double. The optic point is a circular portion in the bottom of the Eye, whose center the optic axis occupies; but as often as we look at any object with both Eyes, so often, unless there should be some defect in the organs, we so

4 1

turn the Eyes, that each axis of the Eye concurs in the same point of the object; and we have been taught by long habit, our sense of touching chiefly directing us, that a double image answers to one object, whence so often as an image falls upon the optic point, so often we judge that object single; but if a double image should fall upon the same Eye, and not concur in the optic point, then the same object appears to us to be seen in two different places, and therefore to us it appears double.

### 2. Diplopia pyrectica.

### FEBRILE DIPLOPY.

This is a symptom sometimes attending fevers and acute pyrexias, in the height of the disease, as often particularly as the complaint occasions delirium, and phrenzy—for the optic axes are irregularly changed, nor do they converge to the same objects; nay indeed they so suddenly diverge, and are moved, that the patient sometimes when there is one physician, fancies that he sees more.

In that case bleeding and sedatives, which take off the delirium, remove the diplopia.—
Among the sedatives, the Sal Sedativum Hombergii in this instance is the most excellent.

3. Diplopia a debilitate—Boneti Sepulchret.
Observat. 22. Casu 43, 44.

DIPLOPY FROM DEBILITY.

This happens at the approach of death, and in convalescents.

4. Diplopia remotorum—AQUILON: Opticæ, pag. 346.

PRESBYTAL DIPLOPY.

In this variety, objects placed at a distance, not those near at hand, appear double.

5. Diplopia a Contusione.—Thummig, Act. Suecie, 1721, pag. 230.

DIPLOPY FROM A CONTUSION.

6. Diplopia a Terrore.—ABRAH. VATER Differtatio, de Visûs Vitiis, 1723.

DIPLOPY FROM FRIGHT.

7. Diplopia

### 7. Diplopia à Temulentiâ.

#### DIPLOPY FROM INEBRIETY.

### §. 3.

8. Amaurosis pituitosa.—Amaurosis a Catarrho, St. Yves; ab Aquâ in Cerebri Cortice, sinubus; Boneti Sepulchretum de Oculorum Affectibus, Obs. 9, 12, 15, 7. L.

### PITUITOUS AMAUROSY.

This affection either attends, or succeeds an apoplexy, palfy, or pituitous hemiplegia.

It indicates cathartics, emetics, vesicatories, setons, issues in the neck; the vapor of spirit of wine may be received into the Eyes; electrifying forcibly to weeping.

In phlegmatic habits, and when rheumatism is the cause, or a palfy suspected, valerian may be mixed with bark, and taken freely, with an insussion of any aromatic herbs, with forty drops of tinctura suliginis. The bowels should be kept lax with small doses of calomel united with aloetic purges—blisters should be applied over the supra-orbital aperture, thro' which nerves pass, and spread on the forehead, and they as well

well as issues should be kept open as long as possible.

Amaurosis scropbulosa—Philosoph. Transact. tom. 9. pag. 257—Ex Steatomate in Cerebro Boneti Obs. 10. Ob vesicam nervis opticis incumbentem, Id. Obs. 2; A Tumore globoso nervis Opticis insidente, Id. Obs. 1. A calculo juxta nervum opticum, Id. Obs. 2. L.

#### SCROPHULOUS AMAUROSY.

I faw in scrophulous children twice an amaurosy suddenly attacking them—on disfection I found a strumous gland fixed on the optic nerve.

10. Amaurosis congenita. St. Yves, Ch. 27, pag. 345.

#### CONGENITAL AMAUROSY.

Infants even are born blind, which is only discovered as they advance in age;—it is singular in this species, that the pupil, tho' immoveable, is not more patulous than it is in that age amongst the ætoptes—it appears therefore as a torpor of the organs.

Two

Two were cured by the use of ophthalmic water, which, from its spirituous parts, restored tone to the Eyes.

nus Medicus. P. 75. P. L.

INTERMITTENT AMAUROSY.

From a quotidian fever an amaurosis returned every day, and receded after a few hours; it was cured by cortex Peruvianus.

FELIX PLATERUS saw it arise from an ardent intermittent—but that which depends upon the synochus, belongs to the plethoric, when by bleeding it may be cured.—Yet St. Yves says, it rarely can be conquered.

12. Amaurosis rachialgica. — Spangerber-GII de Colicâ Saturninâ. Cl. Bonte, Journ. de Med. Nov. 1761, Pag. 407. Avril, 1764. Pag. 346. ex colicâ. D. FABRE.

### RACHIALGIC AMAUROSY.

It is that species which comes upon the rachialgia, or colic, from vegetable or saturnine

nine substances;—and which depends upon the same principle as the paralysis.

In this complaint topical applications are useless, but emetics are of service, according to St. Yves.—After bleeding in many species as in the serous, or hydrocephalic; in the intermittent;—this species is almost always attended with somnolency and stupor; a supervening hæmorrhage is savourable.

13. Amaurosis bysterica. St. Yves, P. 347. Ch. 28.

#### HYSTERIC AMAUROSY.

This happening in hysteria, is fleeting, as the common people attribute it to vapours ascending into the head, because hysterical people fancy they see a cloud, or smoke, before their Eyes; and I have more than once seen, that this disease appearing, the convulsions of other parts have ceased.—

This species continues only a few hours, seldom days.

14. Amaurosis exhaustorum. Lommii Observat. de Tabe dorsali.

AMAUROSY FROM DECAYING NATURE.

15. Amaurosis arthritica. Journ. de Med. tom. 21. p. 227.

ARTHRITIC AMAUROSY.

This is allied to the rachialgic amaurofy, but may be distinguished from that species by the preceding paroxysms of the gout; it is cured by bleeding, epispastics to the feet, and a return of the podagric pain.

Observe.—In order that we may be able to judge of the quantity of vision of the Eye, let the sound Eye be closed, and the diseased one be inspected, opposed to the light; if the hand, at that time placed over it, is now taken away; or if, the palpebra, now pulled down, and that slightly rubbed with the finger, the Eye being suddenly opened, the uvea should be so contracted at the light that the pupil becomes less by half, half the quantity of vision remains;—if less by a third

third part, a third part of visionary power subsists; if it should be altogether immoveable, for the most part no sight is left, unless in very rare cases.

In the London Medical Observations, vol. 3. p. 369. we have an account of an amaurofy proceeding from the bite of a mad dog .- And in the Medical Commentaries of Edinburgh, vol. 5. p. 241. another cured by the arnica montana, or the flowers of leopard's bane, in strong decoction, which arose on a patient's recovering from an epidemical petechial fever. Eight other cases are said to have been cured by the same remedy.-In the cure first mentioned-blisters were applied to the head and back without any advantage—the patients weakness prevented the use of powerful evacuants.- A strong decoction of arnica was prescribed on the 7th of December. In this case the remedy induced a gentle diaphorefis. - On the 11th a delirium, which till then had prevailed, began to disappear-and the patient could distinguish light from darkness .- On the 16th both Eyes appeared natural-vision was perfectly reftored, and the patient was well in every respect. The remedy was continued to the first of January, and the woman was difmiffed-cured.

SECTION

### SECTION THE FOURTEENTH.

THE MUSCLES OF THE EYE.

### §. I.

JAN. Par. 3. Ch. 2.

PARALYTIC EXOPHTHALMY.

THIS species is owing to a paralysis of the muscles, drawing the bulb of the Eye inward, or the recti muscles of the Eye, the oblique being in an healthful state.—See the symptoms and cure of the palsy, from whence you will be supplied both with the diagnosis and therepeutic part belonging to this species.

2. Exophthalmia a Strangulatu—Ecpiefmus ex Strangulatu. PAULI ÆGINETÆ, ÆTII.

EXOPHTHALMY FROM STRANGULATION.

Sometimes the Eyes are pushed outwards, and squeezed in such a manner, that they remain prominent.—In those to whom this disease happens from strangulation, opening the vein of the cubit is only to be depended on.

§. 2.

### 3. Diplopia a Spasmo.

SPASMODIC DIPLOPIA.

From a spasm of the abductor muscle of the left Eye.—WILLIS de Anima Brutorum, Cap. 15.—I saw it in an epileptic patient.

### 4. Diplopia a Paralysi.

PARALYTIC DIPLOPY.

From a palfy of the muscles of one Eye.

—PLATER. Observ. Lib. 1. P. 132.

5. Diplopia ab Ancyloblepharo.—LANGII, Epistol. 7. Lib. 1.

DIPLOPY FROM PALPEBRAIC COALESCENCE.

6. Diplopia a Catarrho. Foresti, Lib. 2. Ob. 39. Aquitorrii Opticæ, p. 346.

#### CATARRHAL DIPLOPY.

This affects the muscles of the Eye, and the Eye itself from defluxion, and makes the disease symptomatic.—See Cephalalgia Catarrhalis, Sp. 10.

### §. 3.

### 7. Amaur sis a Spasmo. L.

#### SPASMODIC AMAUROSY.

This is that which a spasmodic and painful constriction of the annulus moderator of Valsalva excites.

It is observed by anatomists that the sour recti muscles, and the greater obliquus arises from the apex of the orbit around the optic nerve, which they surround; but they, contracted by a spasm, so compress the optic nerve, that it becomes impervious to the nervous sluid—and this is the species of amaurosy which in the first place suddenly happens;

happens;—2d, begins with a violent pain—3d, which accompanies spasmodic hysteric affections;—4th, which arises from either of the orbital nerves being hurt, and from thence the annulus moderator is convulsed; as observed by Valsalva, Diss. 2. No. 11.

Severe head-ach hath brought on this species—Schenckius de Cæcitate, Ob. 5.— A calculous sympathetic nephralgia hath excited it also—Adolph. in Ephemerid. Nat. Curios.—Different painful diseases also concur to this effect—Morgagni Epistol. Anatomic. 18. No. 4, 5.

It hath happened from convultive diseases.

—VIEUSSENS Neurograph. Lib. 3. Cap.
2.—From an epilepsy—Collect. Acad. T.
3. p. 261. HILDAN. Cent. 5. Obs. 5.

VALSALVA cured an amaurofy brought on by a cock forcing his spurs into the ophthalmic nerve, by pressure of the nerve itself, by which means the amaurofy was resolved—as the annulus moderator was relaxed, which compressing the optic nerve, by that constricture, induced blindness.

STRABISMUS .- Strabisme-the afflicted are called Strabones.

STRABISM, OR SQUINTING.

This is a tonic affection, that is, a partial muscular affection of either Eye; from whence it happens, that the optic axis of one Eye converges not with the other in vision.

The optic axis is a right line, which joins the centers of the vitreous humor, the crystalline lens, and the globe of the Eye together, and which is thought to be extended

to the object.

In vision it is required, that the axis of the right Eye should concur in the same point of the object with the axis of the left, from the angle intercepted by these axes we draw our conclusions relative to the fize and distance of objects-therefore if the axes diverge, as in those who squint, we shall be able, from our fight, neither to judge of the distance or magnitude of the things we look at.

Hence then we perceive an object fingly, although viewed with both Eyes, because the Eye converging the image of the object falls upon the optic point of each Eye, and we have accustomed ourselves, in these circumstances, to experience that senfation to be excited from one object alone; -but the Eyes, diverging more than usual, the images of the same object fall upon parts of the Eye not corresponding with each other; and fince double fenfation must be unufual, we perceive it, and bring not two together into one, but to a double object; hence the double fight in those who at first labor under strabism, or squinting; which fault, notwithstanding, by the assistance of the touch, is from custom corrected.

8. Strabismus vulgaris. Vûë à la Montmorency. L.

COMMON STRABISM, OR SQUINTING.

This happens in one who, from a depraved habit of directing one Eye continually towards one part, the faculty of converging both the optic axes at pleasure hither and X 3 thither

thither is lost —Thus infants who, lying in cradles, only see the candle, or light of the window from one side, attract the custom of squinting, as also do those who accustom thems lives to look at a defect, or spot on the nose.

Infants new born move one Eye by itself from the other in different directions, sometimes one way, sometimes another—as chamæleontes—animals, like lizards, living on air, turning all colors, except white and red, but successively observe objects to be seen with both Eyes more distinctly and clearly, and thus learn to direct their optic axes together to the same object, which direction then becomes so natural, that it can scarce be altered by the power of the will.

This species may easily be avoided; but when contracted is cured by concave perspicill of a conoidal form transparent only on the apex;—in France called Masques à loucheté, (covers or masques for those who squint) or amongst adults by attention, or reading very small print before a glass.

### 9. Strabismus spasmodicus. L.

#### SPASMODIC STRABISM.

This is produced by either of the muscles of one or both Eyes being contracted from the attack of clonic eclampsia, or acute convulsive disease, with a deprivation of the senses during the paroxysm---or simple convulsion, sometimes preceding;—by which that muscle has lost its mobility---then the Eye grows a little rigid, gives resistance to the singer, and is constantly turned either to the right or to the left, downwards or upwards, which is an unfortunate deformity. See Remedia contracturæ.

### 10. Strabismus a paralysi. L.

### PARALYTIC STRABISM.

If any one of the recti muscles should be relaxed, or lose their power by paralysis, wound, ulcer, or any other cause, then the antagonist being contracted remains immoveable, as happens to the mouth in hemiphlegia—or the whole Eye may be affected with paralysis, and then it remains

X 4

fixed

fixed and immoveable, and does not converge with the found Eye.—This strabism is distinguished from the spasmodic, because the Eye may be easily turned toward the relaxed muscle.—The cure is the same as for palsy.

### 11. Strabismus catarrhalis. B.

#### CATARRHAL STRABISM.

This depends upon a painful catarrhous congestion, or indeed of any other nature on either muscle, so that the pain prevents that muscle from exercising freedom of motion.

This strabism is easily cured by bleeding resolvent somentations, and anodynes; but we should not apply narcotics to the Eye, for from that source there would be reason to be afraid of an amaurosy.

# 12. Strabismus symptomaticus—Strabismus orantium. Boerhaave. A.

### SYMPTOMATIC STRABISM.

This is a turning of the Eye upwards, which happens at the end of some violent disease, as in infants in the hydrocephalo interno, in eclampsia,

eclampfia, fevers, &c. a little before death;
——it is commonly faid that these tender
infants are looking back on their own country——Heaven.

Why the elevator muscle, not the depression should remain contracted, so that the white of the Eye should only appear, is not yet accounted for.

13. Strabismus lagophthalmus—Vûë de Lievre. L.

Logophthalmy, or hare-eyed Stra-

This is a constant retraction of the palpebra superior, to the superior parts, so that the Eye appears there uncovered even in sleep, as it is said is the custom with hares.

This disease, because of its affinity, is classed with strabismus; but the causes of it is not by authors sufficiently explained.

14. Strabismus Myopum-Vûë Françoise. L.

#### MYOPIC STRABISM.

The myopic, or purblind men are those who see objects, almost contiguous only, distinctly;

distinctly; but remote ones confusedly; or in whom the extension of vision is very short, as that of two singers breadth; so that when they would see any thing distinctly, they place the object near either of the Eyes, and then, that they may not deprive themselves of any light, they look at the object obliquely with one Eye opposite a window, but the other Eye, inasmuch as it is useless, does not converge.

There are men who squint, who on account of being short-sighted, if they should not be placed so near to the persons with whom they are conversing as to distinguish their face, forbear to look directly at them, and then the Eyes diverge.

15. Strabismus Æquinoctialis. BATTEL, Voyage in Asia.

ÆQUINOCTIAL STRABISM.

A nation called Jaggas, living in the northern parts of Abyssinia; also Loangoenses, or Albinê, called by the Spaniards, vulgarly, Negrés-blancs, who reside between 28, 40 longitude, and 5, south latitude, in Asia; are subject subject to the strabismus; both are scarce distant five or six degrees from the line of the æquator. The Jaggasses are tall and deformed, they streak their saces with hot irons, they shew only the white of the Eye, hiding the pupil in the day time beneath the palpebra, least it should be hurt by the rays of the sun, which the sandy soil reslects.

The women in order to render themselves pleasing, have the four superior dentes incisores, and two inferior drawn out.

The Loangoenses are born white, but within two days grow black; the iris of the Eye is grey, their hair yellow, they squint, and are nyctalopes. In the day they see not, but only in the night their sight is very perfect; from Moxhissi, as their own idols, they think all diseases are transmitted.

### SECTION THE FIFTEENTH.

THE FAT, CELLULAR MEMBRANE IN THE INFERIOR PART OF THE ORBIT OF THE EYE, AND THE ORBIT ITSELF.

### §. I.

1. Exopbibalmia a Prótuberantia.

EXOPHTHALMY FROM INTRA-ORBITAL PROTUBERANCE.

THIS species varies from many different causes; for the Eye is pushed outwards—by

a. An intraorbital exostosis.—Petit Malad. des Os. C. de l'Exostose.

b. — abscess—MAITRE-JAN, Part 3. Chap. 1.

c. \_\_\_\_ cyst of blood, ibidem.

d. — fcirrhus of the lachrymal gland, and also a cancer—Boerhaave, Part 1. Cap. 7.—Gorter Chirurg. repurg. Lib. 5. Cap. 10.

e. \_\_\_\_ hydatids—Petit ibidem, ac sup.

f. An intra-orbital intumescence of adeps, St. Yves, Par. 1. C. 19, 20.

g. — lupia—MAITRE-JAN, ibidem.

h. — gummata \*—Astruc Traité des Tumeurs, Tom. 2. Liv. 5. Ch. 5. P. 190.

It is not every protuberance arising within the orbit of the Eye, that can produce
an exophthalmy; but such only as are sufsiciently large, and deep seated.—In the same
proportion as the bulk of the protuberance
encreases, in a similar degree is the bulb of
the Eye protruded, scarce altered with respect to the natural size.

The diagnosis of this species, considered in general, is easy, but the distinguishing its varieties infinitely more difficult—but that these may be known one from the other, we recommend the reader to consult the authors above quoted for the sake of brevity—

The cure is to be varied according to the nature of the protuberance from whence the exophthalmy deduces its origin. This will

<sup>\*</sup> Hard, indolent tubercles, adhering to the periofteum in the lues venerea.

be recited by Petit, Maitre-Jan, Boerhaave, and Astruc, in those places appropriated to each variety.——Examine moreover the genera of exostosis, apostema, hydatids, lupia, scirrhus and cancer.

THE END.

## INDEX.

Note, Those words printed in Small Capitals are the names of those diseases from whence arise many species—those in the Common Letter such as are enumerated by Sauvages, or translated,—and those in Italics, such as are mentioned by various other authors, or so denominated in different countries—and words by which it has been thought necessary to point out the derivations.

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