

ENGLISH.	DANISH.	ESQUIMAUX.	ENGLISH.	DANISH.	ESQUIMAUX.
Wainscot	Vognskud	{ Segliligak man- gertok, N.B.	Week	Uge	{ Sabbatikakku- nerok, v. Ud- set arbanek — mardluk.
Waist	Midie	Kretek.	Weep	Græde	Krianek.
Waistcoat	Vest	Akangitsok.	Weighs (he) it	Vejer	Urssersarpa.
Waits (he) him	Venter	Utakkria.	Weight	Vægt	Urssersaut.
Wakes	Vaager	Erkomavok.	Well	Vel	Ajungitsomik.
Wakens (he)	Vaagner	Iterpok.	Wet	Vaad	Kausersok.
Wakens (he) him	Vækker	Itersarpa.	Wheat	Hvede	Hvede (Dan.)
Walk (to)	Spadsere	Pissungnek.	Wheel	Hjul	Arksakaursok.
Wall	Væg	Karmak.	Whelp of a dog	Hvalp	Kremmêrak.
Wander	Vandre	Ingerdlanek.	Wherefore	Hvofo	Saag?
Want (a)	Mangel	Ajorsaut.	Whets (he) it	Hvæsser den	Ipikarpa.
War	Krig	Sekkuaufik.	While he weeps	Medens, lat. dum	Krianet.*
Warbles (it)	Bæver	Aulavok.	Whip	Pidsk	Ipperautak.
Warehouse	Proviantbod	Augoarbik.	Whiskers (beard)	Bakkenbart	Umik.
Warmth	Varme	Kiek.	Whisper	Hviske	Issiwærnek.
Warns (he) him	Advarer ham	Syorasarpa.	Whistle	Fløyte	Uingiarnek.
Warrants (he) it	Bekræfter det	Narkriksorpa.	White	Hvid	Kakortok.
Wasp	Vespe	Egytsarsoak.	Whitsuntide	Pindsetid	Pintse (Dan.)
Wastes it	Forgaær	Nungulerpok.	Whole	Heel	Illuütsok.
Watches (he)	Vaager	Pigarpok.	Wholesome	Sund	Perkriksairsok.
Watch	Uhr	Nællunærkotak.	Wicked	Ryggeslös	{ Ajortullioroma- tök,
Watchmaker	Uhrmager	{ Nællunærkut- siortok.	Wide	Viid	Nerotok.
Water (fresh)	Vand	Imek.	Widens it	(Det) bliver viidt	Nerotungorpok.
Waterman	Færgemand	Ikaursirsok.	Widow	Enke	Uiglaruek.
Wave	Vove, v. Bølge	Mallik.	Widower	Enkemand	Nullærnek.
Wavers	Vakler	Aulavok.	Width	Vide	Nerotoursusek.
Waxes (it)	Voxer	Agdliartorpok.	Wife	Kone	Nulliak.
Way	Vej	Akkosinek.	Wild	Vild	Nyoartok.
Weak	Svag	Sengêtsok.	Wilderness	Örken	Innukajuütsok.
Weakens (he)	Svækkes	Ajulerpok.	Wile	List	{ Pekkoserdlung nek.
Weakness	Svaghed	Ajulersusek.	Will (1)	Jeg vil	Piomavonga.
Wealth	Rigdom	{ Pekkouterperk soit.	Wills (he)	Vil	Piomavok.
Wealthy	Ring	Pekkoutilik.	Wind	Vind	Annorê.
Wears it	Opslides	Asseroriartorpok.	Window	Vindue	Igalak.
Weary	Træt	Kassursok.	Wine	Viin	Vine (Dan.)
Weather	Vejr	Silia.	Wink	Vinke	Isingniiksainek.
Weaves (he)	Væver	Ikartiteriok.	Winter	Vinter	Okiok.
Wedding	Bryllup	Nulliartarne.	Wipes (he) it	Aftörre	Allerterpa.
Wedges (he) it	Klöver	Kopiva.			
Wedlock	Ægteskab	Nulliareengnek.			

* is translated by a mood of the verb whereto it belongs.

DANISH, AND ESQUIMAUX LANGUAGES.

ENGLISH.	DANISH.	ESQUIMAUX.	ENGLISH.	DANISH.	ESQUIMAU
Wise	Vís	Ilisimarsok.	Wretch	Stakkel	Innukuluk.
Wish	Önske	Kiksarneq.	Wretched	Elendig	Nagliuktok.
Wit	Forstand	Silla.	Wrinkle	Rynke	Erkruek.
Withdraws (he)	Gaaer bort	Audlarpok.	Wrist	Haanded	Arksaut.
Withers it	Væner	Tokolerpok.	Writ	Skrift	Aglegak.
Witness	Vidne	Narkrikse.	Writes (he)	Skriver	Aglekpok.
Wolf	Ulv	Amarok.	Writing-desk	Skrivepult	Aglektarbik.
Woman	Quinde	Arnak.	Wrong	Feil	Kiglok.
Wonders (he)	Forundres	Tupigosukpok.	Wrong (I am)	Jeg feiler	{ Kiglornuvonga, v. seglovonga.
Wonderful	Forunderlig	Tupingnartok.	Wrong (thou art)	Du feiler	{ Kiglornuvotit, v. seglovotit.
Wood	Træ	Kressuk.	Wronged	Fornærmet	Innardligak.
Wool	Uld	Merkut.	Wry	Krum	Pekkingarsok.
Werd	Ord	Okauzek.	Yard	Alen	Urssersaut.
Works (he)	Arbeider	Sulliok.	Yarn	Garn	Yahursrt.
Work	Arbeid	Sulliak.	Yawns (he)	Gaber	Aitsarpok.
World	Verden	Sillarsoak.	Year	Aar	Okiok.
Worm	Orm	Kopertlok.	Yelk	Æggeblomme	Tingursak.
Worn	Forslidt	{ Attanetængo- akangitsok.	Yellow	Gul	{ Sungärpalluk- tok.
Worship (at church)	Gudsdyrkelse	Nalegiarneq.	Yet	Endnu	Sulle.
Worsted stock- ings	Strømper	Allersik.	Yields (he)	Giverester	Kunnuvok.
Worth	Værd	Akke.	Yoke	Aag	Naugmaut.
Wound	Saar	Ikke.	Young	Ung	Innusuktok.
Wrecks the ship	Forliser	Asserorput.	Youth (a)	Ungt menneske	Innusuk.
Wraps (he) it	Svöber	Imupa.	Zealous (he is)	Nidkiær	Kemakpok.
Wreaths	Fletter	Perdlaïok.	Zone	Belte	Kreterrut.

THE NATIVE POPULATION OF GREENLAND.

	THE SETTLEMENTS.	Baptized.	Unbaptized.	MEN.					WOMEN.					Total of both Sexes.	NOTES.
				Married.	Widowers.	Unmarried.		Total.	Married.	Widows.	Unmarried.		Total.		
						beyond 12 years.	below 12 years.				beyond 12 years.	below 12 years.			
a	Julianeshaab (Greenl. Krakortok).....	1059	3	131	26	145	167	469	137	63	187	206	593	1062	Besides two Moravian Missions.
b	Arsut, Rilenlenk, and Upernivik.....			31	16	87	114	298	91	35	62	120	308	606	Here is no Settlement and no Mission.
b	Frederikshaab (Gr. Pamiut).....			67	16	79	95	257	69	37	101	104	311	568	Here is no Mission of the Moravians.
b	Fiskenæsset (Gr. Krikertarsoejtsiak)...	58		10		5	11	26	10	1	6	15	32	58	Here is one Mission of the Moravians.
b	Godthaab (Baal's River, Gr. Nouk)...	301		45	3	26	61	135	47	21	50	48	166	301	Besides the Moravian Mission, Neu Herrnhut.
c	Sukkertop (Gr. Mannetsok).....	449		68	2	47	96	213	71	21	62	82	236	449	
c	Holsteinborg (the dist. Gr. Amertlok)	552		80	13	66	100	259	83	28	88	94	293	552	
d	Egedesminde (Gr. Ausieit).....	390	1	56	13	46	79	184	62	26	47	72	207	391	
d	Hunde Eiland (Dog's Island).....	97		17	4	13	14	48	19	3	8	19	49	97	
d	Christianshaab.....	108		16	1	11	22	50	19	4	14	21	58	108	
d	Claushavn.....	230		45	7	14	41	107	49	7	22	45	123	230	
d	Jacobshavn.....	276		48	11	27	75	131	54	17	20	54	145	276	
d	Kronprindsens Eyland (Whale Island)	57	1	7	2	6	11	26	7	3	11	11	32	58	
d	Godhavn (Leifly).....	154		21	2	19	38	80	23	7	20	24	74	154	
e	Ritenbenk.....	261	3	48	7	25	46	126	48	10	32	48	138	264	
e	Umanak (Women's Island?).....	500	5	78	12	79	86	255	84	24	49	93	250	505	
		4492	13	768	135	695	1056	2664	873	307	779	1056	3015	5679	

POPULATION TABLE.

The Missionaries of the Established Church reside at Julianeshaab, Godthaab, Holsteinborg, Egedesminde, Umanak, and Upernivik; their districts are noted with letters as their residence.

The difference between married men and married women arises from some of the latter being married to Danes.

Note.—The MORAVIAN MISSIONS at Julianeshaab district, 424 men, and 536 women.

at Fiskenæsset ditto 153 do. and 214 do.

at Godthaab ditto 156 do. and 214 do.

DIALOGUES

**ENGLISH, DANISH, AND ESQUIMAUX
LANGUAGES.**

DIALOGUES, &c.

ENGLISH.	DANISH.	ESQUIMAUX.
RELATING TO COASTS, LAND, &c.		
Have you seen the land?	Har Du seet Land?	Nuna tekkogalloarpiuk?
How far is the land?	Hvor langt er Landet borte?	Nuna kannong ungesiksiga?
How near is the land?	Hvor nær er Landet?	Nuna kannok kannitiga?
In what direction is the land?	Hvor er Landet?	Nuna nau?
Point to the land.	Peeg paa Landet.	Nuna tikoardlugo.
Where is the water?	Hvor er Vandet?	Imak nau?
Point to the water.	Peeg paa Vandet.	Imak tikoardlugo.
What is the name of the land seen?	Hvad er Navnet paa Landet, vi see?	{ Kannong-attekarpa nuna tekkur- sarpuk?
What is the water's name?	Hvad er Vandets Navn?	Imang una kannong attekarpa?
Do you know the land?	Kjender Du Landet?	Nuna ilirsarauiuk?
Can we sail through this channel?	Kunne vi sejle gjennem dette Sund?	Ugona ikkerasakut akkutiksakarpa?
Is the water deep?	Er Vandet dybt?	Imak itisimava?
How deep?	Hvor dybt?	Kaunong itirsiga?
How shallow?	Hvor grundt?	Kaunong-ikkatiga?
Is there a river there?	Er der en Elv?	Ouane kogejsiakarpa?
Point to the river.	Peeg efter Elven.	Kok tikoardlugo.
Which is the road?	Hvor er Vejen?	Sukut pissaugut?
Go before us.	Gaae forap.	Siulersortigut.
When is it high water?	Naar bliver Vandet højt?	Kakugo ullissava?
When is it low water?	Naar lavt Vande?	Kakugo tinnissava?
Can we anchor?	Kan vi ankre?	Kisarsinnavogut?
Are you a pilot?	Er du Lods?	Ilisimarsovit?
I want a pilot.	Iegvilde have Lods.	Ilisimarsomik piomagalloarponga.
Are you going on shore?	Gaaer du i Land?	Ikaissavit (siksamut)?
May we land?	Maae vi lande?	Ikarkovisigut, v. aposinnavogut?
Will you come back?	Vil du komme tilbage.	Utissavit (tamaunga)?
When will you?	Hvor vil du hen?	Sumut pissavit?
Come to us again.	Kom igjen til os.	Uterfigisigut.
Do you sleep on shore?	Vil du sove i Land?	Nunane sinissavit?
Do you come to-morrow?	Kommer du imorgen?	Akkago ikaissavit?
Come back to-morrow.	Kom igjen imorgen.	Akkago ama ikkardlutit.
Come in two days.	Kom i overmorgen.	Akkagoane ikarniarit.
Is there a good harbour?	Er der god Havn?	Ajungitsomik kisarfikarpa?
Is the harbour bad?	Er Havnen slet?	Kisarfik ajorpa?
Is the bottom rocky?	Er der Steen i Bunden?	Nakka ujarakarpa?
Is the bottom mud?	Er der Dynd?	Nakka mauvarnarpa?
Is the bottom sand?	Er der Sand?	Nakka syorakarpa?
Is the bottom clay?	Er der Lær?	Nakka marrakarpa?

ENGLISH.	DANISH.	ESQUIMAUX.
What mark is that?	Hvad Mærke er dette?	Sunauna nællunærkotak?
Is there a current?	Er der en Strøm?	Sarfakarpa?
Which way does it go?	Hvad Vey gaaer den?	Sumut sarfarpa?
Is the current strong?	Er Strømmen stærk?	Sarfarkulukpa?
I shall go on shore.	Jeg vil gaae i Land.	Apóssaunga.
I shall not go on shore.	Jeg gaaer ej i Land.	Apóssengilanga.
I shall sleep on shore.	Jeg vil sove i Land.	Nuname sinissaunga.
My boat is on shore.	Min Baad er i Land.	Umiajtsiara siksamepok.
A man is on shore.	En Mand er i Land.	Siksame kivgakarponga.
Is the landing good?	Er Landeplasen god?	Apóneng ajornangila?
Is there reindeer there?	Er der Rensdyr?	Tuktokarpa?
Are foxes there?	Er der Ræve?	Terianniakarpa?
Are hares there?	Er der Harer?	Ukadlekarpa?
Are bears there?	Er der Bjørne?	Nennokarpa?
I shall take a rope on shore.	Jeg vil føre en Line i Land?	Siksame pittukomarpaka.
Make fast the rope.	Gjør Touget fast.	Pittuta sukaglugo.
Cut the rope.	Kap Touget!	Pittouta kippivdlugo!
Loose the rope.	Los!	Pittursardlugo!
Make fast.	Fast!	Pittuglugo!
RELATING TO WIND AND WEATHER.	OM VIND OG VEJR.	SILLAMIK ANNOREMIGLO.
What do you think of the weather?	Hvad tænker du om Vejret?	Silla kannong—essesugaiuk?
Do you think the wind will continue?	Tænker du at Vinden vil blive ved?	Annore tajmæginnaissanerpok?
Will the wind change?	Vil Vinden forandres?	(See, A)
Shall we have rain?	Vil det regne?	Siedlilissaua?
Shall we have snow?	Vil det snee?	Apissaua?
Shall it be calm?	Bliver det stille?	Kaitsyssava?
Shall it blow?	Vil det blæse?	Annordlilissaua?
Will it be fair wind?	Faae vi god Vind?	Orkomiaissaugut?
Will the weather be good?	Bliver Vej ret godt?	Silla ajyssengila?
Has there been snow?	Har det sneet?	Aputekaralloarpise?
Has there been wind?	Har det blæst?	Annordleralloarpa?
Has there been rain?	Har det regnet?	Siedleralloarpa?
Has there been frost?	Har det frosset?	Issekaralloarpa?
Does it freeze?	Fryser det?	Issekarpa?
It freezes.	Det fryser.	Issekau.
It did freeze hard.	Det frøs haardt.	Issekulukalloarkau.
Frostbitten.	Som har Frost.	Krerisimarsok.
Are you frostbitten?	Har du Frost?	Krerisimavit?
Is there ice there?	Er der Iis der?	Tersane sikkokarpa?
There is much ice.	Meget Iis.	Sikkokarkulukpok.
There is little ice.	Lidt Iis.	Ingmangoak.
There is plenty of water.	Vand nok.	Akkutiksakarpok* (pa).
No water.	Ingen Vand.	Akkutiksakangilak.

* Propr. There is way! akkutiksakarpa? is there way?

ENGLISH.	DANISH.	ESQUIMAUX.
No ice.	Iugen Iis.	Sikkongilak.
Icebergs.	Iisfelde.	Illulirsæt.
Is the ice broken up?	Er isen brudt?	Sikkoerupa sikkoerupok?
Is it frozen over?	Er der lagt til?	Sikkoingolerpa?
There is no ice.	Der er ingen Iis.	Sikkokangilak.
The ice is not broken.	Isen er ikke brudt.	Sikkoerusimangilak.
There is no water.	Der er ingen Vand.	Sikkoīnavok, v. akkutiksakangilak
The weather was bad.	Vejret var ondt.	Silla ajoralloarpok
The weather was good.	Vejret var godt.	Silla ajungikalloorpok.
The weather was foggy.	Vejret var taaget.	Silla pyolirksomok.
The weather was clear.	Vejret var klart.	Silla ālaralloarpok.
In thick weather.	I tykt Vejr.	Silla pyorsorsomet.
In bad weather.	I ondt Vejr.	Silla ajornet.
In good weather.	I godt Vejr.	Silla ajungimet.
I think a fog is coming on.	Det bliver vist taaget.	Pyolissakokau.
I think the weather will continue as we have it now.	Jeg tænker Vejret vil blive det samme.	Silla tajmāeginnaissakokau.
It is a fair wind.	Det er god Vind.	Arkomiarpogut.
It is a foul wind.	Det er Modvind.	Arksorpogut.
It is a calm.	Det er Stille.	Kaitsorpok.
A baffling wind.	Det er ombløbende.	Annorē nellinginak.
It is a hard gale.	Det blæser op.	Nektimalerpok.
This has been a mild season.	Det har været mildt.	Kiekalloarpok.
This has been a bad season.	Det har været uroligt.	Annordleīnaralloarpok.
There has been much wind.	Det har blæst meget.	Annordleīnaralloarpok.
There has been much cold.	Det har været meget koldt.	Issekulukalloarkau.
Is there ice there west?	Er der Iis Vest paa?	Sammane sikkokarpa?
Is there ice there north?	Er der Iis Nord paa?	Auane sikkokarpa?
Is there ice there south?	Er der Iis Syd paa?	Kauane sikkokarpa?
Is there ice there east?	Er der Iis Øst paa?	Pauane sikkokarpa?
The winter was very cold.	I Vinter var det koldt.	Okiok issekulukalloarkau.
The spring was a bad season.	I Foraar var det uroligt Vejr.	Upernigavta annordleralloarpok.
ARMS, &c.		
Knives.	Knive.	Saveet (one, savik).
Spears.	Spyde.	Kallugirsæt.
Bows.	Buer.	Pissiksit.
Arrows.	Pile.	Karksut.
Guns.	Kanoner.	Auleirksomit.
Muskets.	Flinte.	Aulejsit.
Cutlasses.	Sabler.	Pennæt.
SUNDRIES.		
Books.	Bøger.	Attuekkæt.
Compasses.	Compasser.	Nællunærkotit.
	ADSKILLIGT.	NELLINGINAK.

DIALOGUES IN THE ENGLISH.

ENGLISH.	DANISH.	ESQUIMAUX.
Canvas.	Sejldug.	Tingerdlautiksak.
Casks.	Huer.	Nesæt.
Shoes.	Skoe.	Atteraurset.
Blankets.	Lagener.	Tungit.
Skin (outer jacket).	Yder Pelts.	Nejtsack.
Skin (inner jacket).	Under Pelts.	Tingmirset.
Trousers.	Buxer.	Kardleet.
Boots.	Støvler.	Kaungit (sing. kamik).
Shoes.		See before, or isigamæt.
Scissors.	Sax.	Krejutik.
Razor.	Ragekniv.	Ungiaut.
Needles.	Synaale.	Merkutit.
Thread.	Traad.	Yalursæt.
Corks.	Propper.	Simeet.
I wish to sell (it).	Jeg vil sælge.	Tunniomagalloarpara.
I wish to buy (it).	Jeg vil kjøbe.	Pissiniaromagalloarpara.
I wish to exchange (it).	Jeg vil bytte.	Taursiomagalloarpara.
I wont sell (it).	Jeg vil ikke sælge.	Tunniomangilara.
I wont buy (it).	Jeg vil ikke kjøbe.	Pissiniaromangilara.
I wont exchange (it).	Jeg vil ikke bytte.	Taursiniaromangilara.
VARIOUS.		
I want to borrow it.	Jeg vilde laane det.	Attartoromagalloarpara.
Will you lend ?	Vil du laane.	Attorkoviuk ?
I will lend it.	Jeg vil laane.	Attorkoara.
I will not lend it.	Jeg vil ikke laane.	Attorkongilara.
How many ?	Hvormange ?	Kapsit ?
Where are you going ?	Hvorhen vil du ?	Sumut pissavit ?
When do you come again ?	Naar kommer du igjen ?	Kakugo utiassavit ?
Are you going far away ?	Skal du langt bort ?	Ungesiksomun audlaissavit ?
Are you going north ?	Skal du nord paa ?	Auonga pissavit ?
Are you going south ?	Shal du syd paa ?	Kauonga pissavit ?
Are you going east ?	Skal du øster paa ?	Pauonga pissavit ?
Are you going west ?	Skal du vester paa ?	Sammunga pissavit ?
Do you walk ?	Skal du gaae ?	Pissyssavit ?
Do you take a sledge ?	Skal du kjøre ?	Kremuksissavit ?
Are you alone ?	Er du allene ?	Kissingorpit ?
Who is with you ?	Hvo er med dig ?	Kina megaiuk ?
What do you ask for ?	Hvad vil du ?	Sumik ?
What will you take for ?	Hvad vil du have derfor ?	Sumik ?
What news have you ?	Hvad Nyt har du ?	Sumik tusseralloarpit ?
Very good news.	Godt Nyt.	Tussækketin ajungilæt.
Very bad news.	Onde Tidender.	Tussækketin ajorpæt.
It is war.	Der er Krig.	Sekkuaursokarpok.

DANISH, AND ESQUIMAUX LANGUAGES.

ENGLISH.	DANISH.	ESQUIMAUX.
It is peace.	Der er Fred.	Sekkuanrsokangilak.
There is a quarrel.	Der er Strid.	Sekkolirsarput.
They fight.	De slaaes.	Panikput.
They have fought.	De have slaaets.	Panikalloarput.
Will fight (they).	De ville slaaes.	Panissaput.
Are you armed?	Er du bevæbnet?	Sekkokarput.
I have been attacked.	Jeg blev anfaldt.	Pångnekarponga.
I beat him.	Jeg slog ham.	Ajugavonga.
I was beaten.	Jeg blev slaaet.	Arktorsartipanga.
He is wounded.	Han er saaret.	Ikkilersimavok.
He is killed.	Han er dræbt.	Tokotipok.
Where are you come from?	Hvorfra er du?	Sumit aggerpit?
Where do you belong to?	Hvor hører du hjemme?	Suna nunagaiuk?
Where are you going?	Hvorhen skal du?	Sumut pissavit?
When are you going?	Naar reyser du?	Kakugo audlaissavit?
Where are they going?	Hvor skille de hen?	Sumut pissaput?
Where do they belong to?	Hvor have de hjemme?	Suna nunagut?
When are they going?	Naar skille de rejse.	Kakugo audlaissaput?
How far?	Hvor langt?	Kannok ungesiksigrisomut?
Which way?	Hvad Vej?	Sukut?
By water.	Til Vands.	Imakut.
By land.	Over Land.	Nunakut.
Stop where you are till I come back.	Bie hvor du er til jeg kommer igjen.	Tersanëgit utilerserdlunga.
Do not wait for me.	Bie ikke efter mig.	Utakkrissengilarma.
Wait for me here.	Bie her efter mig.	Tamane utakkrinianga.
Wait for me there.	Bie der efter mig.	Ikane utakkrinianga.
Are you ready to go?	Er du færdig at gaae?	Enerpit audlarkudlutit?
When will you be ready?	Naar bliver du færdig?	Kakugo enissavit?
Do you believe it?	Troer du det?	Operaiuk?
Do you advise?	Mener du?	Isumakarput?
Why don't you answer?	Hvi svarer du ey?	Saag akkingilatit?
Have you any thing for me, or any one else?	Har du noget til mig eller nogen anden?	{ Uamnut kimudloneen adlanmut sumik pekkarput?
Do you like it?	Kan du lide det?	Illuaraik?
Don't like it.	Kan du ikke lide det.	Illuarigiliuk.
What is the matter?	Hvad erder?	Sumik?
Where shall we meet?	Hvor skal vi mødes?	Sume nellautsomarput?
Will you attempt, or try?	Vil du prøve det?	Okataissaviuk?
Is that true?	Er det sandt?	Illomut?
is that not true.	Er det ikke sandt?	Seglo?
A disturbance has broken out among the —.	Der er kommen Ufred imellem —.	Ikingutigeegungnærput.
Send a party of men.	Send nogle Folk.	Innuin illejt kailit.
I will send men.	Jeg vil sende Folk.	Kivget audlartissavaka.

DIALOGUES IN THE ENGLISH,

ENGLISH.	DANISH.	ESQUIMAUX.
Do not meddle.	Bryd dig ikke herom.	Sýssersok.
You ought to change your resolution.	Du skulde betænke dig.	Tajma pissengikalloarpotit.
I give my consent.	Jeg samtykker.	Tajmaikile or akkoerara.
I will not give consent.	Jeg vil ikke samtykke.	Ajornakau.
I will leave you.	Jeg forlader Dig.	Kremeissauagit.
I can wait no longer.	Jeg kan ikke bie.	Audlaromarponga.
I will detain you.	Jeg vil opholde dig.	Unnikkogalloarpagit.
It is unnecessary.	Det behöves ikke.	Pirsariakangilak.
It is not right.	Det er uret.	Illuangilak, v. ajorpok.
Will you dine?	Vil du spise?	Nerrissavit.
I have dined.	Jeg har spiist.	Nerrirarponga.
Bring your friend here.	Lad din Ven komme hid.	Illet tamaunga pile.
Bring here your family.	Lad din Familie komme hid.	Nulliet krittornetidlo kailit.
Do not forget.	Glem ikke.	Puïorkrennæk.
I do not know.	Jeg veed ikke.	Nælluvonga.
I must take time to consider of it.	Jeg vil betænke mig derpaa.	Assukiak, erkarsautigiomarpara.
A skin under jacket.	En Underpelts.	Tingmirsæt.
A skin upper jacket.	En Overpelts.	Nejtsek.
Skin trousers.	Skindbuxer.	Kardleet.
Boots.	Støvler.	Kaungit.
Shoes.	Skoe.	Atterausæt.
Stockings.	Strømper.	Allersit.
Gloves.	Handsker.	Aketit.
A wooden or natural leg.	Et Been.	Neehu—nio (pronounced, neeo).
VESSELS, &c.		
Sleep on board.	Sove ombord.	Umiarsoarne siningnek.
Sleep on shore.	Sove iland.	Nunane siningnek.
You must not sleep on board.	Du maa ej sove ombord.	Umiarsoarne sinissengilatit.
I require immediate help.	Hjælp mig strax.	Ikiorsinga erngrenak.
Will you give me help?	Vil du hjælpe mig?	Ikiyssavinga?
I will help you.	Jeg vil hjælpe dig?	Ikiyssauagit.
I will not help you.	Jeg vil ikke hjælpe dig.	Ikiyssengilagit.
Give me a rope.	Giv mig en Line.	Aklunaursak kaïrsuk.
I will give you a rope.	Jeg vil give dig en L.	Aklunaursamik unnissauagit.
I cannot.	Jeg kan ej.	Ajornakau.
An anchor.	Et Anker.	Kisak.
A cable.	Et Kabeloug.	Aklunaursarsoak.
Files.	File.	Aggiutit.
Hammer.	Hammer.	Kavtak.
Axe.	Öxe.	Ullimaut.
Chalk.	Kride.	Aglaut.
Nails.	Söm.	Kikitsæt.
Carpenters' tools.	Tommermands Redskab.	Sennetit.

DANISH, AND ESQUIMAUX LANGUAGES.

ENGLISH.	DANISH.	ESQUIMAUX.
Lead.	Bly.	Akertlok.
Harpoon.	Harpun.	Tukak.
Shovel.	Skovl.	Nivaut.
Spade.	Spade.	Tuggaut.
Wooden shovel.	Træskovl.	Nivaut.
PROVISIONS.		
Beef (fresh).	Færsk Kjöd.	Nekkre.
Beef (salt).	Salt Kjöd.	Nekkre tarajornitsok.
Fish (fresh).	Færsk Fisk.	Nerpik.
Fish (salt).	Salt Fisk.	Nerpik tarajornitsok.
Bread.	Bröd.	Timiursak, v. tigeek.
Pease.	Ærter.	Ærtæt.
Spirits.	Spiritus.	Sillærunartok.
Butter.	Smör.	Pöngnek.
Eggs.	Æg.	Manneet.
Milk.	Melk.	Imuk.
Oil.	Olie.	Olie.
Medicines.	Medicin.	Nekkursautit.
Whiskey.	Brændeviin.	Sillakangitsok.
Rum.	Rum.	Sillakangitsok aukpadlartok.
Beer.	Öl.	Imiak.
Water.	Vand.	Imek.
Wine.	Viin.	Vine.
Cheese.	Ost.	Imuk.
Coffee.	Caffe.	Kaffe.
Sugar.	Sukker.	Sukko.
Tea.	Thee.	The.
Plums.	Svedsker.	Kiggutiglit.
Raisins.	Rosiner.	Serkordluktut.
Barley.	Grÿn.	Suaursæt.
Syrup.	Syrup.	Mamanga.
Vinegar (acetum).	Ædike.	Sernartok.
RELATING TO HEALTH.		
Are you well?	Er du rask?	Ajungilatit?
Is he well?	Er han rask?	Ajungila?
Are they well?	Ere de raske	Ajungilæt?
I am well.	Jeg er rask.	Ajungilanga.
We are well.	Vi ere raske.	Ajungilagut.
They are well.	De ere raske.	Ajungilæt.
I am not well.	Jeg er ikke rask.	Ajorponga.
I am very ill.	Jeg er meget daarlig.	Napparsimakulukponga.
They are ill (unwell).	De ere daarlige.	Napparsimaput.

ENGLISH.	DANISH.	ESQUIMAUX.
Is your wife well?	Er din Kone rask?	Nulliet ajungila?
Is your family well?	Er din Familie rask?	Krittornetin ajungilæt?
Is your husband well?	Er din Mand rask?	Uveen ajungila?
I have been sick.	Jeg har været syg.	Napparsimagalloarponga.
You have been sick.	Du har været syg.	Napparsimagalloarpotit.
Are many sick?	Ere mange syge?	Kapseet napparsimapæt?
How many are sick?	Hvor mange ere syge?	Kapsit napparsimapæt?
What is the sickness?	Hvad er den Sygdom?	Suna nappautigæt?
Have you a doctor?	Have I en Doctor?	Nekkursairsokarpise?
I will send you a doctor.	Jeg vil sende Jer en Doctor.	Nekkursairsok kakýssauara.
Send for the doctor.	Send Bud til Doctoren.	Nekkursairsok kaile.
Is he or she alive?	Er han eller hun levende?	Innuva?
Is he or she dead?	Er han eller hun død?	Tokosimava?
He or she is alive.	Han eller hun lever.	Innuvok.
He or she is dead.	Han eller hun er død.	Tokosivamok.
My son is well.	Min Søn er rask.	Ernera ajungilak.
My daughter is well.	Min Datter er rask.	Panniga ajungilak.
My son is not well.	Min Søn er ikke rask.	Ernera napparsimavok.
My daughter is not well.	Min Datter er ikke rask.	Panniga napparsimavok.
Where are the sick?	Hvor ere de Syge?	Napparsimersut nau?
My doctor is sick.	Min Doctor er syg.	Nekkursairsiga napparsimavok.
My doctor is dead.	Min Doctor er død.	Nekkursairsiga tokovok.
RELATING TO VESSELS, &c.		
Is the ship large?	Er Skibet stort?	Umiarsoit angissimapæt?
How large?	Hvor stort?	Kannong aktigæt?
How small?	Hvor lille?	Kannok miktigæt.
How many men?	Hvor mange Mand?	Innuæe kapsiopæt?
She is large.	Det er stort.	Angikaut.
She is not large.	Det er ikke stort.	Angingilæt.
Have you any letters?	Har du Breve?	Aglekkænnik pekkarpit?
Send letters.	Send Breve.	Aglekkæt neksiudlugit.
I have letters.	Jeg har Breve.	Aglekkænnik pekkarponga.
I have no letters.	Jeg har ingen Breve.	Aglekkænnik pekkangilanga.
The vessel in sight is.	Hvader det Skib i Sigte.	Kikun okko umiarsoit.
A ship.	Et Skib.	Umiarsoit.
A boat with men.	En Baad.	Umiajtisiat.
A packet (a launch).	En Barkasse.	Umiaitsiarsoit.
Are you on shore?	Er du paa Land?	Tullekpit?
Is your vessel leaky?	Er jert Skib læk?	Umiarsoæse asserorpæt?
Do you leak much?	Lækker I meget?	Asserorkulukput?
We leak much.	Vi lække meget.	Asserorkulukput.
Are you in distress?	Er Ti Nód?	Nauværpise?
I want assistance.	Jeg ønsker Hjelp.	Ikiorteksarsisukponga.

ENGLISH.	DANISH.	ESQUIMAUX.
I am on shore.	Jeger i Land.	Apoponga.
My ship is on shore.	Mil Skib er i Land.	Umiarsoaka nunaliput.
The leak increases.	Lækken bliver større.	Asserornerrogiartorput.
The leak is stopped.	Lækken er stoppet.	Asserorunguærput.
Come back.	Kom tilbage.	Uterit.
Go away.	Gaae væk.	Arvsærit, v. audlarit.
I want to come.	Jeg vil komme.	Aggissaunga.
I want to go.	Jeg vil gaae.	Audlaissaunga.
I want you to stay.	Jeg vilde have dig til at blive.	Tersanêkoagit.
BIRDS.	FUGLE.	TINGMIRSET.
Eagle (vultur albicilla).	Örn.	Nektoralik.
Falcon (falco islandicus).	Falk.	Kirsoviârsuk.
Snow owl (stryx noctea).	Hvid Ugle.	Opik.
Raven (corvus corax).	Ravn.	Tullugak.
White partridge (tetroa lacopus).	Rype.	Akeiksek.
Willow partridge (fringilla laponica).	Markspurven.	Narksamiutak.
Willow partridge (fringilla linaria).	Steensqvetten.	Akpâmiutak.
Willow partridge (motacilla œnanthe).	Iisfugl (Sneef).	Kussektâk.
Snow bunting (emberiza nivalis).	Radgaas.	Kopanauarsuk.
Bernacle (anas bernicala).	Hviinand.	Nerdlek.
Gold eye (cloukala anas).	Strömand.	Kærtlutorpiârsuk.
Harlequin (anas histrionica).	Vildand.	Tornaviarsuk.
Mallard (anas boschas).	Pukkelnæbbet Edderf. (femina).	Kongmuktajok, v. kærtlutok.
King duck (anas spectabilis).	Edderfugl.	Arnauartak.
Eider duck (anas mollissima).	Guuland.	Mitek (plur. merkdelineaturit).
Goosander (mergus merganser).	Fiskeand.	Parârsuk.
Red-breasted Merganser (mergus serrator).	Geýrfugl.	Paik, v. nyaliksak.
Great Auk (alca impennis).	Klub alke.	Isarokitsok.
Razor bill (alca torda).	Alke.	Akparnak, v. akpartluk.
Black bill (alca pica).	Söekonge.	Akpa.
Little auk or rotch (alca alle).	Mallemukken.	Akpalliârsuk.
Fulmar petrel (procellaria glacialis).	Enkekone; Skrabe.	Kakordluk.
Shearwater (procellaria puffinus).	Öamer.	Kakordlungnak.
North guilemot (colymbus glacialis).	Loom.	Tudlik.
Red-throated guilemot (colymbus septentionalis).	Tærne.	Karksauk.
Great tern (sterna trirundo).	Svartbaggen.	Imerkotejlak.
Xeme (larus Sabini, larus collaris).*	Krykkie.	Kongæserutilik.
Black-backed gull (larus marinus).		Naiardlurksoak.
Kittywake (larus tridactylus).		Tatarak.

* Not known. I have seen it in Capt. Ross's First Voyage, and can baptize it *Kongæserutilik*, viz., "that with the neck-kerchief."

ENGLISH.	DANISH.	ESQUIMAUX.
Ivory gull (<i>larus candidus</i>).	Den hvide Maage.	Nájauársuk.
Glaucus gull (<i>larus glaucus</i>).	Blaamaagen.	Naianak.
Cormorant (<i>pelicanus carbo</i>).	Skarv.	Okaitso.
Crested cormorant (<i>pelicanus cristatus</i>).	Topskarven.	Tingmik.
Gannet (<i>pelicanus bassonus</i>).	Havsule.	Kuksuk.
Snipe (<i>scolopax gallinago</i>).	Hossegjög.	Sigguktök.
Jardreka (<i>scolopax jardreka</i>).	Domsneppen.	Sargvarsurksoak.
Sandpiper (<i>tringa striata</i>).	Strandsneppen.	Sargvârsuk.
Sandpiper (<i>tringa interpres</i>).	Tolken.	Telligvak.
Sandpiper (<i>tringa lobata</i>).	Nordvestfugl.	Nellonmirsortok.
Sandpiper (<i>tringa alpina</i>).	Landsneppe.	Tôjuk.
Plover (<i>charadrius apricurius</i>).	Brokfugl.	Kajordlék.
Ringed plover (<i>char. stiaicula</i>).	Pÿtfugl.	Tukavâjok.
Puffin (<i>alca arctica</i>).	Söepapagojen.	Killangâk.
Puffin (<i>uria grylle</i>).	Teist.	Serfak, v. kernektârsuk.
Pintail duck (<i>anas hyemalis</i>).	Angletaske.	Aglek.
Parasitic gull (<i>cataracta parasitica</i>).	Struntjager.	Meriarsaïrsok, v. isingak.
Horned owl (<i>strix otus</i>).	Hornugle.	Siutitök.
Plain falcon (<i>falco rusticolus</i>).	Spættet falk.	Kirksoviarsuk millakulartok.
Eider duck (<i>anas mellissima</i>).	Ederfuglehan.	Amaulik.
King duck (<i>anas spectabilis</i>).	Osterboygds Edderf.	Kdeliningalik.
ANIMALS.	DYR.	NERSSUTIT.
Polar bear (<i>ursus maritimus</i>).	Björü.	Nennok.
Arctic fox (<i>canis lagopus varietas nigra</i>).	Ræv.	Kernektâk.
Wolf (<i>canis lupus</i>).		Amarok.
Hare (<i>cetraria islandus</i>).	Hare.	Ukalek.
Reindeer (<i>cervus tarandus</i>).	Rhensdyr.	Tukto.
Walrus (<i>trichecus rosmaurus</i>).	Hvalros.	Auvek.
Seals (<i>phocæ</i>).	Sælhunde.	Puïrsit.
Hooded seal (<i>phoca cristata</i>).	Klapmyds.	Nejttersoak.
Common seal (<i>phoca vitulina</i>).	Spraglet Sælhund.	Kassigiak.
Harp seal (<i>phoca Grœnlandica</i>).	Svartisden.	Atak.
Great seal (<i>phoca barbata</i>).	Remmesæl.	Takamugak, v. urksuk.
Rough seal (<i>phoca hispida</i>).	Fjord sæl.	(Junior) millaktök.
White seal (<i>phoca leporina</i>).	Söeharen.	Ukalerajek.
Small seal (<i>ph. barb. pullus</i>).	Un Uksukunge.	Terkigluk.
Fœtus of a seal, or its unborn youag.	Iblau ufodt Sæl	Iblau.
Sea unicorn (<i>monodon monoceros</i>).	Narhval.	Kernektak.
Dolphin (<i>delphinis delphis</i>).	Marsviin.	Nesa.
Wolverine (<i>gulo luscus</i>).		Kaeweek.
Whales, &c. (<i>cete</i>).	Hvalfisk.	Arfek.
(<i>balena physalus</i>).	Finnefisk.	Tunnolik.

ENGLISH.	DANISH.	ESQUIMAUX.
Whales, &c. (<i>balena musculus</i>).		Kreporkarnak.
(<i>balena rostrata</i>).	Sværdfisk.	Tikagulik.
(<i>balena mystietus</i>).	Bardehvalen.	Arfavek, v. sokalik.
White whale (<i>delphinus albicans</i>).	Hvedfisk.	Krelelluak.
Fish (<i>salmo rivalis</i>).	Bækøred.	Aunårdlek, v. ekallugak.
Salmon (<i>salmo scorpio</i>).		Krebseriksok.
(<i>salmo alpinus</i>).		Ivisarok.
Codfish (<i>gadus reglesinus</i>).	Kuller.	Misarkornak.
(<i>gadus callarius</i>).	Kabliau.	Såraudlik.
(<i>gadus morpua</i>).	Skrijtersk.	Sarndlikrsoak.
(<i>gadus barbatus</i>).	Torsk.	Ogak.
Hallibut (<i>pleuronectes hippoglossus</i>).	Helleflynder.	Nettarnak.
Eel (<i>angulla vulgaris</i>).	Aal.	Nimeriak.
Corriphine (<i>coryphæna rupestris</i>).	Borglax.	Ingmingoak.
<i>Mytilus edulis</i> .	Musling.	Uidluk.
Antique labrus (<i>labrus exoletus</i>).	Blaastaal.	Kreblernak.
Sepia loligo.	Blækspruten.	Amikók.
Lobster (<i>cancer norvegicus</i>).	Hummer.	Naularnak.
A bee.	En Bie.	Egytsak.
Pike-headed whale (<i>balæna boops</i>).	Butskop.	Kreporkák.
Gunnel blenny (<i>blennius gunnellus</i>).	Tangsprel.	Kurksaunak.
<i>Ascaris vermicularis</i> .	Barneorm.	Koartak.
<i>Physeter macrocephalus</i> .	Eachelot.	Kigutilik.
<i>Aranea saccata</i> .	Edderkop.	Ausiek.
Rough seal (<i>phoca hispida</i>).	Fjordsæl.	Nejtsek.
Areolated blenny (<i>blenn. lumpenus</i>).	Tangspret.	Tejárnak.
<i>Musca stercoraria</i> .		Anariak.
<i>Tabanus Grœnlandicus</i> .	Vandbie.	Miluiak.
<i>Musca vivax</i> .		Milmarsuk.
<i>Volucella lapponica</i> .		Nivingak.
<i>Musca vomitoria</i> .	Spyflue.	Ekallukák.
Pool salmon (<i>salmo stagnalis</i>).	En Öred.	Menningoak.
<i>Mya hyssifera</i> .	Gaberskjæl.	Usursak.
<i>Mya truncata</i> .	Sandskjæl.	Saua.
Avis.	Faar.	Sanaursak.
Capra.	Dættu nu ring.	Massimio.
Lernæa.	Sililuluk.	Ippiarsursak.
Beroe.	Uportaanligt.	Nuertlek.
Medusa.	Wolf.	Nuertlersoak.
Medusa capillata.		Ujarangmio.
River bullhead (<i>cottus gobio</i>).	Grundling.	Ekallurksok.
White shark (<i>squalus carcharias</i>).	Hay.	Ukalek.
<i>Lepus timidus</i> .	Hare.	

ENGLISH.	DANISH.	ESQUIMAUX.
ICE.	Is.	
On salt water	Paa salt Vand	Sikko.
On fresh water	Paa serok Vand	Sermek.
Iceblink	Iisblink	Sermersoak.
Heavy ice	Storiis	Sikkorsoak.
New thin ice	Tyndiis	Sikkoak.
On the earth	Paa Jorden	Nillersoak.
Even ice	Jevn	Mannerarsoak.
Blue	Blaa	Annardlok.
Bay ice	Fjordiiis	Kaksuk.
Lain in a kettle to melt		Imiugak.
Iceberg	Iisfjeld	Illuliak.
Small streaming		Kavalerngit.
Fast on the beach	Iisfjör	Kaingok.
Moveable by the beach		Ivksinek.
Pieces at sea (drift)		Navlornierit.
Iceicle	Iistap	Kussugak.
On the inside of a window		Illo.
Produced when water from beneath goes over the fast ice of a river		Særsernek.

CHRONOMETERS.

EVER since the year 1794, my attention has been much devoted to the practical use of chronometers, both while I belonged to the Honourable East India Company's service, and in the Royal Navy, where I had, when serving under the gallant Lord de Saumarez, the charge of the navigation of both the Channel and the Baltic fleet.

On taking command of the expedition fitted out for the discovery of a North-west Passage, my first care was to obtain good chronometers, and also as many of them as possible. My own chronometer was made by the late justly celebrated Earnshaw, and was certainly a very superior one; I therefore took it as the standard for comparison, with the whole thirteen. Several of these were the property of private persons, who either lent them to the expedition, or sent them on trial: of the latter description were those sent by Messrs. Parkinson and Frodsham, who sent two with a memorandum that their rate would increase to fourteen seconds and then remain steady: a circumstance which actually took place, and which went to prove that they had discovered some new principle, in their regulation or construction, and my report on them could not be but very favourable. Since this every expedition has been furnished by Parkinson and Frodsham with these valuable machines, and the reports on their performance have been uniformly favourable. On this voyage I purchased of them the pocket chronometer 1081, which was distinguished as being that made for Sir E. Parry, on his attempt to reach the North Pole, as well as for its uniform rate. These makers also kindly sent with me a box chronometer at their own risk, which could not but be a great acquisition. Both of these performed to admiration; the box chronometer, until we left Victoria harbour, where it was purposely allowed to run down that it might be more easily carried, and the pocket one during the whole time. On our arrival they were both returned to the makers, and being desirous to make public the principle on which these instruments

have been brought to such perfection, and reserving my own observations on it for the conclusion of this article, I shall give their answer to my request in their own words.

4, Change Alley, May 15, 1834.

SIR,

IN compliance with your desire to be furnished with a report of the condition of the two chronometers of our make, which you took with you in your late Expedition to the Arctic Regions, we have examined them with the most careful and minute attention, and find them in an excellent state: indeed, very far more perfect than could have been expected after such a length of time, and the severe trials which they must have undergone.

With regard to their peculiar construction, which you at the same time requested us to describe, as you were desirous of publishing it for the benefit of science and navigation generally, we have no hesitation in complying with your wishes; so far as is consistent with justice to ourselves, and we hope that our communication may prove useful.

The *peculiar principle* which we have discovered is of the highest importance in giving the final adjustment to chronometers, as by it we are enabled, *in all cases*, to give permanence to their rates, within the limits of exactness requisite in navigation.

We beg, in the first place, to disclaim all intention of insinuating that in the mechanical construction of our instruments there is any thing superior to, or materially different from, those made by other respectable makers; for we are well aware, that all chronometers lately made by intelligent artists, are on the same mechanical principle. But the fact is notorious, that of several instruments made with equal care, reference being had only to their mechanical construction, some are found to perform well, and others indifferently; while nothing can be discovered in the workmanship which will in any way account for the variation.

Chronometers in general, as at present constructed, are found progressively to accelerate on their rates, and in many instances this takes place to such an extent, that a new rate is required, rendering them ill suited for long voyages; on the contrary, others have a continual disposition to lose on their rates, and are therefore equally unsuited to the wants of the seaman.

But whether the rates of chronometers were accelerated or retarded in use, there existed no *recognised* or *known* remedy for the evil, UNTIL WE MADE THE DISCOVERY, which it is one object of this communication to record our claim to. Some artists have trusted to *time* for its correction; and a writer in a scientific journal* has recently

* Nautical Magazine

even assigned the period when the cure might be expected to be completed: but *time* being no party to the bargain, generally left the instruments thus turned over to its benevolence to pursue their vagaries without interference.

The cause, which the writer alluded to has assigned for this acceleration, is the use of tempered balance-springs; now tempered balance-springs have been in use for more than half a century, and forty years ago they were made by ourselves. If time, therefore, could have cured the defects of the tempered balance-spring, as stated in the paper above alluded to, these old chronometers would now have been excellent instruments, which certainly they are not in general found to be.

The consequence has been, that the rates of most of the chronometers at this moment in existence, can only be considered constant for short intervals of time. Many years have elapsed since our attention was drawn to this peculiarity, from several mortifying circumstances which occurred in our own experience; and after satisfying ourselves that it was in vain to look for the cause of so perplexing a phenomenon in the *mechanical construction* of the instrument, we resolved to examine the *physical condition* of the materials of which the balance and its spring are made: and we discovered that the greater part, if not the whole of the discrepancies, were owing to circumstances in this *physical condition*.

After many experiments and much investigation, we had the good fortune to discover the means of correcting this physical peculiarity, either completely, or so nearly, that we can now undertake (after ascertaining the tendency) so to alter the physical properties of the balance and its spring, as to make ANY chronometer, whose mechanical construction is otherwise satisfactory, perform with sufficient exactness for every purpose for which chronometers are generally required.

The acceleration of chronometers on their rates, hitherto unexplained in the history of chronometers, is produced by the constant action of winding and unwinding the balance-spring, which, in chronometers beating half seconds, takes place two hundred and forty times in each minute, and it is thereby deprived of a portion of its elasticity. It becomes consequently stiffer, stronger, and more stubborn; and as the motions of the balance (the measurer of time) are regulated by this spring, the vibrations become more rapid, and are performed in less time.

The cause of chronometers losing on their rates, is also generally to be traced to the physical imperfection of the balance-and-spring; which, contrary to what takes place in the tempered spring, becomes relaxed by constant action, combined with other causes; and consequently has less power over the vibrations of the balance. But independently of all accidental circumstances, the chronometer is continually changing its rate, with every alteration of tension in the balance-spring.

The scientific artist may, indeed, give to this spring the isochronal property, so far that under given and constant circumstances, unequal arcs of vibration in the balance, will be performed in equal time; but this adjustment will in no degree counteract the effect occasioned by change of tension to which we have been adverting.

We do not allude in the preceding remarks to defective compensation for change of temperature, but to that gradual deviation from the rate which many chronometers are found to exhibit, and to an extent that often interferes with their usefulness.

It is true that all chronometer makers do occasionally produce instruments, which, for a sufficient length of time, keep steady rates; but they do so only from accidental circumstances, of which the makers themselves are not always aware. They approximate to the correction which we have discovered the means of making *in all cases*.

In our researches on this subject, we have found that the defect in the correction for change of temperature, is amongst the least of the difficulties to be contended with; and the value of the principle of adjustment which we have discovered has been eminently proved by the accurate performance of our chronometers, which have been exposed to the severities of the arctic winters, in all the Polar voyages. In one of those voyages, *eleven* out of *fifteen* chronometers stopped from the cold; whilst *four* made by us, (all of ours that were sent) maintained the same rates at Melville island that they were found to have in London after the return of the expedition.

The chronometrical parts of our chronometers consisting of the compensation balance and the detached escapement, are the same as invented before 1766, by the eminently distinguished artist, M. Le Roy, of Paris, with the important improvement of the detant on a spring instead of on pivots, as made by the late Mr. Earnshaw; together with some minor but useful alterations in the execution and arrangement suggested by our own experience.

We have said before, that chronometers made by the same artist do not always perform equally well, although the same workmen are employed, the same labour is bestowed, and the same attention paid to each. Several modern artists have endeavoured to remedy this defect by means of mechanical contrivances, some of which display considerable ingenuity and are apparently very plausible; but, however beautiful in theory, these contrivances have produced no practical advantage; no one has yet discovered the seat of the disease, or the cause of so remarkable an effect. We reassert that no *mechanical contrivance* can remedy the defect: it is only to be remedied by a knowledge of the principle which we have discovered.

Le Roy's original inventions of the balance for compensating for changes of temperature, and the escapement, were entitled, from their beautiful simplicity, to the reward so justly bestowed upon him; and with the improvement above alluded

to, by our countryman Earnshaw, continue unrivalled: in fact they are generally adopted by all intelligent chronometer-makers.

We consider that the best balance is that composed of laminæ of brass and steel, when properly proportioned, and worked so that the particles are placed under no particular or partial constraint, which might prevent their free and natural action throughout the whole periphery of the balance. This we consider an important requisite; for to the want of affinity in the condition of the particles, we attribute some of the irregularities observed in the rates of chronometers, when subject to the rigorous test of daily comparison—more particularly after sudden changes of temperature. There are inherent defects in the shape of the balance, which prevent its affording theoretically the means of a perfect compensation; but it is doubtful whether other forms, which appear preferable in theory, would be found in practice to answer so well.

As evidence of our possessing means peculiar to ourselves, of bringing a chronometer to keep a steady rate, we may mention the fact, amongst numerous other instances, and we do it with much satisfaction, that of the *eight* chronometers entitled to the prizes for the most accurate performance during the last three annual public trials at the Royal Observatory, at Greenwich, *five* were constructed by us, and adjusted on the *principle peculiar to ourselves*.

We may add, that within the last fifteen years, during which period we have been adjusting our chronometers on THIS PRINCIPLE, we have had extensive experience of its efficacy, having made and sold more than twice as many marine chronometers as any other maker has done during thirty years;—the best proof that the public have appreciated our discovery.

Attempts have recently been made to introduce *glass* in the construction of the balance-spring; and the first performance of some of the instruments in which this alteration was introduced, was very satisfactory.

There is, however, reason to apprehend that this *material* will not be found to give to the instrument a *permanent* rate, as one of the very best of them has, in the course of a few months, deviated from its rate to the amount of seven seconds a day: while another chronometer, under the same circumstances, on the usual construction, with a steel balance-spring, and which at the last public trial (1833) was second in performance to one made by us, kept a remarkably steady rate.

We may also be allowed to state, that on this trial (1833), sixty chronometers were sent by various makers; and at the termination, the numbers were reduced to ten, *four* of which were made by us; and the extreme variation of each, in the twelve months, was considerably within the limits fixed in 1828 for the reward of Three Hundred Pounds. Three of them made less error than our chronometer, No. 1410, in 1828;

for which we then received the premium of Three Hundred Pounds. The extreme variation of these five chronometers was as follows :

In 1828, No. 1410 in twelve months		1.41	actual extreme variation.
1833	679	ditto	0.98
	1600	ditto	1.31
	460	ditto	1.24
	1502	ditto	1.52

In 1830, one of our chronometers was entitled to the second prize, and some others of our making were within the limits.

In the trial of 1831, the chronometers made by us obtained the *whole of the three prizes*, and another was fifth on the trial list. We may be excused for making particular reference to the trials of this year, from the remarkable circumstance, that in all the preceding years, from 1822, when the trials for prizes were first established, a period in which several hundreds of chronometers had been sent for trial, but four had performed within one second of extreme variation in the twelve months; whilst in this trial the *WHOLE* of our four chronometers went within less than a second of extreme variation; the following being the extreme variations as published by the Astronomer Royal :

No. 311 in twelve months		0.70	actual extreme variation.
2	ditto	0.86	
665	ditto	0.89	
1	ditto	0.99	

In 1832 and 1833, chronometers made by us were entitled to prizes; and several others of our manufacture have been frequently within the limits prescribed by the Government, forming a large proportion of the best chronometers submitted to *public trial*.

It has been repeatedly suggested to us, that a PRINCIPLE so important as ours has proved to be, should be imparted to the public, as every thing tending to the improvement of chronometers is a matter of national concernment. We are willing to give up to the public the benefit of our knowledge and experience in these matters, on receiving, as others have done, an adequate compensation for the value which the discovery is of to us in our private business; but we hold ourselves justified in withholding an explanation of the principle, until it either ceases to be of importance to us, or we are adequately remunerated for disclosing it.

Government having directed that the public trials of chronometers at Greenwich, for

prizes, shall cease after the present year, a few remarks on the origin of those trials, and on the favourable effect which they have had on the art of chronometer making, may not inappropriately close our observations.

Notwithstanding the encouragement which Government had long afforded to the art, by purchasing chronometers largely, and at liberal prices, for the use of the navy; and the very considerable rewards which had been given to three of the leading artists (3000*l.* each) for the superior performance of some instruments made by them, yet the general state of the art was much below what was generally believed, and might have been expected.

Aware of this fact, and desirous that the art which we exercised should participate in the general improvement, we, in 1818, addressed a letter to J. W. Croker, Esq., at that time Secretary to the Admiralty, respectfully suggesting that Government might further and most essentially aid the progress of the art, by giving *frequent and small rewards to ingenious workmen who made instruments that actually performed well, without reference to the principles on which they were constructed.*

The public trials at the Royal Observatory commenced in 1820, and the performance of the chronometers on the first trial proved the correctness of the opinion which we had formed as to the general state of the art of chronometer making. The prizes of 300*l.* and 200*l.* were that year adjudged to chronometers which Government would not at the present time purchase at any price.

Several of the chronometers which we sent on trial in the various scientific expeditions to the Polar Seas and towards the Equator, having performed satisfactorily, we sent some of our experimental chronometers to Greenwich on trial, a few years after the public trials were first established; and the opportunity thus afforded us of having the effect of our successive alterations tested by daily observation, enabled us to determine many minute sources of error, which we should otherwise most probably never have discovered.

The opportunity, too, of returning for trial chronometers which, having performed unsatisfactorily we had endeavoured to improve, gradually led us to the discovery of the principle which enables us now to control at pleasure, and to counteract, any general tendency in chronometers to deviate from their rates.

We are, Sir,

Yours, respectfully,

PARKINSON & FRODSHAM.

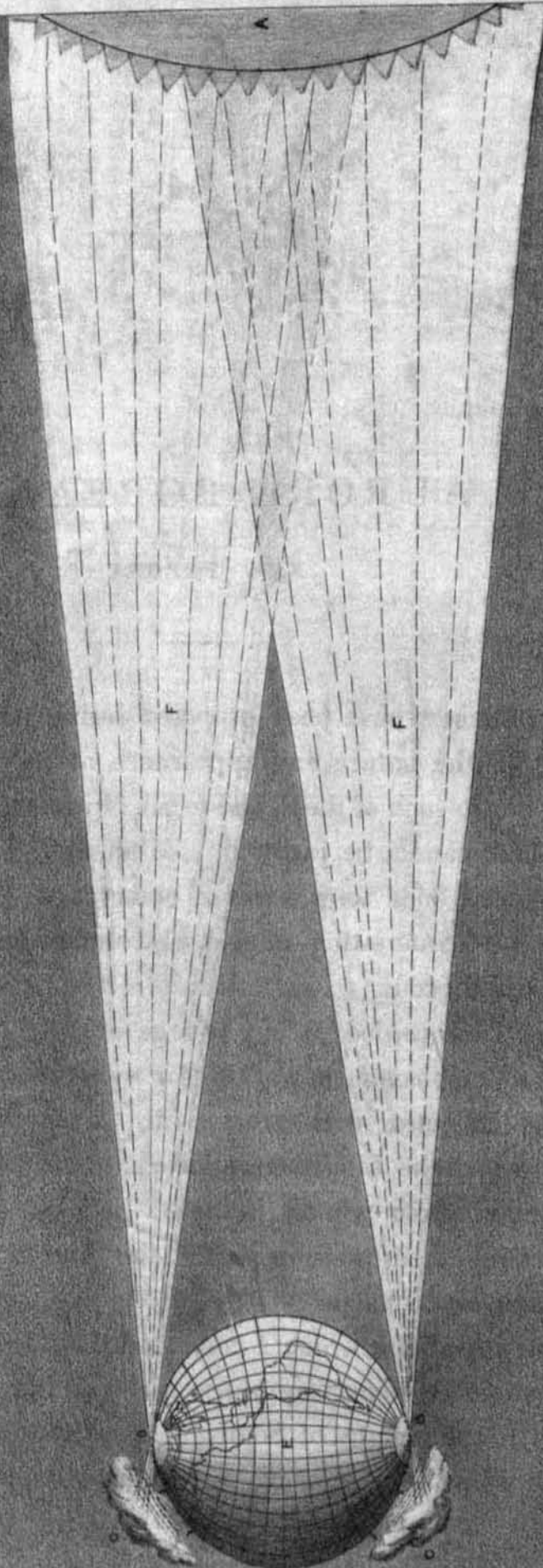
To Capt. Sir John Ross, R.N.,

&c. &c. &c.

Those who have perused the above statement from Messrs. Parkinson and Frodsham, and are at all interested in the improvement of navigation, cannot but be desirous that a fair trial should be given to this important discovery; and if it is found that chronometers which are the production of respectable artisans, and which from causes hitherto unknown deviate from their rates, so as to be comparatively useless, can be corrected by the application of their principle, so as to become sufficiently perfect for the purposes of navigation, by maintaining the uniform rate within the limits prescribed by Government, no one will deny, that this important discovery should be made public, and that such discovery is fully entitled to a liberal compensation; and I cannot conclude this article without recommending it to the serious attention of those whose duty it is to inquire into and reward merit.

Mr. Murray, a very respectable chronometer-maker of London, being desirous to establish the excellent going of his chronometers, sent No. 620 eight day, 634 two day, and 558 one day, all box chronometers, which could not be a great acquisition to us; and it is but justice to say that they were excellent instruments, for although they all gained at first, they obtained a constant rate, from which they did not deviate whilst in my possession. I regret much that it was not in my power to bring them home, as I have no doubt they would have been found perfect, with the exception of one which met with an accident.

In addition to No. 571, box chronometer, and of 1081 for the pocket, of Parkinson and Frodsham I purchased No. 418, pocket chronometer, of Barraud, which I knew to be good, having it formerly in my possession; but the main spring gave way soon after we sailed, which reduced my number to five. These were under the charge of Commander Ross, until July, 1831, after which they were all under my own care, and the only two that were brought home were those by Parkinson and Frodsham.



AURORA BOREALIS.

NEW THEORY.

MANY theories have been proposed during the last century, to account for the nature and appearance of this beautiful phenomenon, but to each of these, and to all, objections have been made, that I think cannot be justly applied to the following, which has been founded on a long series of observations made carefully by myself on this interesting subject, and under circumstances peculiarly advantageous.

Before I proceeded on my voyage of 1818, my attention was directed to the phenomenon of the Aurora by the late Dr. Wollaston, who had collected, with great pains, much information on the subject, which he kindly transmitted to me, as well as his own observations, from which, however, he came to no other conclusion than a supposition that "the Aurora was beyond the atmosphere of the earth."

As the expedition which I commanded in 1818 did not winter in the Arctic Regions, my observations during that voyage were confined to the months of September and October, during which time the ships were moving in a southerly direction from the

latitude of 74° to 58° north, when it was observed that from the latitude of 74° until 66° , the phenomenon was seen to the *southward*, particularly at midnight; but when the ship had passed to the southward of the latitude of 66° , it was seen to the *northward*. In several instances the Aurora was distinctly observed to be between the two ships, and also between the ships and the icebergs; proving unquestionably that it could not be at that time beyond the atmosphere of the earth. This indeed was the only fact which I completely established during that voyage, but which was a conclusion that led me to inquire how its proximity to the earth was to be accounted for. Both at my observatory in Scotland, and during my late and long-protracted residence in the Arctic Regions, my attention has been particularly directed to this interesting subject, and my conclusions are, that *the splendid phenomenon, called the Aurora, is entirely occasioned by the action of the sun's rays upon the vast body of icy and of snowy plains and mountains which surround the poles.*

The rays of the sun, *in the first instance*, are reflected, from uneven, plain, or variegated surfaces, of the coloured, icy, or snow-clad substances, which are presented to them at the point of incidence by the rotation of the earth, and passing over the poles reach and illuminate clouds which are only rendered visible to us by such illumination, these clouds having positive, negative, and reflecting qualities, possess the power of producing all the surprising effects which have been observed by distributing the rays they have received, and as they receive them, in every direction; and according to the state of the atmosphere, give additional

variety to the original colours as reflected from the point of incidence; and further, if due regard is paid to the properties of light, its connexion both with magnetism and electricity may be satisfactorily explained.

IN SUPPORT OF THIS THEORY—In the first place, we have the fact, that when the spectator's position on the earth is to the northward of the 69° of north latitude, the Aurora is generally observed to bear to the southward, very seldom to the northward of east or west, and never in that direction or in the north, unless the sun is in opposition, or a region of icy or snowy substance is between the spectator and the bearings of the sun; although the illuminated clouds which I have mentioned might there, as in a lower latitude, very possibly reflect the rays they have received in every horizontal, as well as vertical direction.

Secondly. The atmosphere between the sun and the spectator is always clear, whether he is to the southward or northward of the Aurora. When he is looking at the Aurora from a high latitude, towards it in the south, the sun is then at his back to the north; and if the sky becomes cloudy in that (the northern) direction it is fatal, the Aurora immediately disappears, because the rays are intercepted by an impenetrable cloud. In like manner, when the spectator observes the Aurora bearing to the eastward or westward, if a cloud or fog intervenes between his position and the sun, it immediately disappears.

Thirdly. When the spectator sees the Aurora to the *northward*, he is always to the *southward* of the icy regions, and at that time the sky in the direction of the sun is always clear; should a cloud

intervene, either above or below the point of incidence, the phenomenon will disappear.

When the rays of the sun are reflected from a vast plain of icy substance to stationary and to us invisible clouds, it follows that the Aurora will remain a long time without changing, the rays being then reflected as from a circular or globular mirror, the angle of incidence and reflection remaining the same; but the moment that these rays arrive (by the earth's rotation) at water, or at some non-reflecting substance or surface, the Aurora suddenly disappears, as it does by an intervening cloud, which is a fact I have had confirmed by many observations.

With regard to the action of the Aurora on the magnetic needle, I need only say, that in common with every other kind of light, it has the property of affecting the needle or combining with magnetism. *The effects of the Aurora on the needle were the same as the sudden approach of a naked candle, or when the light of a lamp was concentrated by a lens on the needle delicately suspended at a distance of eighty-four yards: an experiment which I repeatedly tried at Sheriff's harbour.* With regard to electricity, it is notorious that there is less in the Arctic Regions than in any other place; and, during my first voyage, the electrometer was never moved by the electric fluid, although often tried.

The position of the Aurora Borealis in the heavens, depends much on the depression of the sun below the horizon of the spectator, on its bearings, and on the nature of the surface which first receives the sun's rays, at the point of incidence, which if uneven will produce the *capra saltans*, or merry dancers; if the surface is

even it will produce the *irabs*, or beam, provided the illuminated cloud is tranquil, but if not it will produce the *sagitta*, or *faces* (pencil rays, or torch); and if the rays are conveyed from thence by a second reflection, which is very often the case, the *bothinia*, or cave, will appear with the pencil rays ascending; the *corona* and *pithiæ* depend also on the shape of the clouds as well as their positive and negative qualities.

The colours of the Aurora depend on several circumstances: First, on the colours of the objects which originally receive the sun's rays at the incidental point. Secondly, on the state and qualities of the atmosphere, through which the reflected rays pass before they reach the clouds which they are to illuminate, and thereby render visible to the spectator not only the clouds themselves, but the various colours which the rays have then assumed. Thirdly, by the nature and composition of the cloud itself; however, it is most probable that the colour depends oftener or more materially on the colour of the objects which first receive the sun's rays at the incidental point, from whence they proceed by the laws of reflection, according to the various oblique directions of that surface; since the observations of Captain Cook, and other antarctic navigators, represent that the Aurora Australis has always "a clear white light," and that no coloured ice has been observed in the antarctic regions; while, on the contrary, ice of every colour has been observed by myself and others to exist in great abundance in the Arctic Regions.

The reason that the Aurora is not always visible, is evidently because the sky near the pole is often cloudy and foggy, particu-

larly in the spring and autumn, and when it is considered that the Aurora cannot be visible unless the atmosphere is clear on *both sides of the pole* in the direction of the sun, it will appear probable that it does not often happen; and in summer of course the Aurora cannot be seen in latitudes where the sun is then above the horizon below the pole, but I have often observed an appearance in the sky resembling the pencil rays of an aurora, with the exception that the illumination of the clouds was overpowered by the light of the day; and as the sun was then always in opposition to the northward, I can have no doubt but that this phenomenon was an aurora, caused by the rays of the sun reflected from the circumpolar mountains of ice to the clouds; and I may add, that this appearance has been noticed by several navigators of the Polar Regions.

The noise of the Aurora, described by some as resembling a silken flag exposed to a fresh breeze, and by others as that of a rushing noise like fireworks playing off, was never heard or observed, on any of the recent Arctic voyages, and it may be concluded that such a noise does not take place in these regions: if, however, it is insisted upon to be the fact in more southern latitudes, it may probably be occasioned by the combination of the Aurora with electric matter, which is not found in the north.

Since this paper was read at that excellent institution, the British Association for the advancement of Science, I have had the satisfaction of learning that several of its most distinguished members had made observations corroborative of my theory; among which I may mention those of W. L. Wharton, Esq., of Dryburn, Durham, who has kindly transmitted to me the copy

of an article he wrote in the *Durham Advertiser*, November, 1830. In this case, the Aurora was seen at eleven, P. M., when it was considerably to the westward of north at twelve (midnight), the summit of the luminous arch was due north. He adds, "Those who may have remarked the radiations of the Aurora have probably been struck by their similarity to those beams of light which radiate from the sun when partially observed by a cloudy atmosphere. They may also have observed with us that the radiations for the most part appear to proceed from that spot under the horizon in which the sun would be seen, if not concealed by the body of the earth, and that the summits of the accompanying arches of light are always seen directly above the same spot. Is it not then possible that the phenomena of the Aurora may originate in the light of the sun refracted at an immense elevation above us, after glancing over the nebulous strata of a distant part of the earth's atmosphere?"—In like manner, the registers of the Aurora in all the recent voyages to the Polar Regions corroborate my theory, although different conclusions, or conjectures, were hazarded respecting its nature and origin, and to which I must refer my readers as they are too numerous for insertion.

I may conclude by adding, that my theory has been submitted to the celebrated Professor Schumacher and others, who made no objections to it.

JOHN ROSS.

EXPLANATION OF THE PLATE.

- A—The sun as at the Equinox.
B B—The points of incidence.
D D—Positions of the spectators.
C C—Clouds rendered visible by the reflected rays.
E—The earth as at the Equinox.
F F—The rays of the sun.

This diagram represents the sun's rays acting on the icy or snow-covered part of the earth, and being reflected over the poles reach clouds which are rendered visible by illumination; and having themselves reflecting qualities, distribute them upwards, downwards, or in any other direction, and owing to the rotation of the earth, are changing or steadfast according to the nature of the surface at the incidental point which first receives the rays.

EXPLANATION OF THE PLATE

A--The sun as at the Equinox.

B--The point of incidence.

D B--Position of the spectrum.

C C--Clouds rendered visible by the reflected rays.

E--The earth as at the Equinox.

F F--The rays of the sun.

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This diagram represents the sun's rays acting on the ice or snow-covered part of the earth, and being reflected over the polar regions, clouds which are rendered visible by illumination; and having themselves reflected, produce distant views upwards, downwards, or in any other direction, and owing to the rotation of the earth, are changing or ascending according to the nature of the surface at the particular point which first receives the rays.

ACCOUNT
OF THE OBJECTS IN THE SEVERAL DEPARTMENTS OF
NATURAL HISTORY,

SEEN AND DISCOVERED DURING THE PRESENT EXPEDITION.

BY CAPTAIN JAMES CLARK ROSS, R.N., F.R.S., F.R.A.S., F.L.S., &c.

HAVING placed the department of Natural History under the exclusive charge of my Nephew, Captain J. C. Ross, whose acquirements in this branch of knowledge have been long known to the public, from the results of the former voyages in which he was engaged, I am indebted to him for the following pages; which have been drawn up by himself, with the assistance of those friends whom he has noticed in his own Preface.

JOHN ROSS.

PREFACE.

THE recent publication of the *Fauna Boreali Americana*, by Dr. Richardson, has rendered a detailed account of the Zoology of the Arctic Regions quite unnecessary. Nearly all the quadrupeds and birds that were met with in the course of our voyage in the *Victory* having fallen under the notice of that distinguished traveller and naturalist, they have there been described with accuracy, and illustrated by beautifully coloured engravings, so that nothing further is now left to be desired.

In the following brief notice the arrangement of Cuvier, in the *Règne Animal*, has been adopted, and in nearly all cases a reference is given to Dr. Richardson's descriptions in the *Fauna Boreali Americana*, and to the valuable Zoological notices appended to the several narratives of the Expeditions of Discovery to those Regions, under the command of Sir W. E. Parry and Sir John Franklin, where will be found all that is interesting both to the general reader and the naturalist.

I have much pleasure in expressing my obligations to Dr. Richardson for his observations on four species of Salmon brought home by me: his intimate acquaintance with the various species of that extensive and interesting genus inhabiting the lakes and

rivers of the North American Continent, will give a high value to that portion of the notice of the Fishes.

The rest of our collection having been necessarily abandoned with the Victory, a short and very imperfect account has been drawn up from my rough notes taken at the time, which, from my being but little acquainted with that branch of Natural History, is of course very defective.

To my friend Mr. Curtis, my warmest acknowledgments are due for his valuable remarks on the few Insects which I was able to bring to England, and the very beautiful drawings and engravings which accompany them.

The liberal and kind assistance I have received from Mr. Richard Owen, in drawing up the catalogue of the Marine Invertebrate Animals, requires my best thanks; particularly for his careful and elegant dissection of the new genus which he has named "Rossia;" peculiarly valuable at a time when the internal organization of the inferior orders of animated nature has become so extensively used in their classification.

J. C. R.

ZOOLOGY.

BY COMMANDER (NOW CAPTAIN) JAMES CLARK ROSS, R.N., F.R.S., F.L.S., &c.

1.—URSUS MARITIMUS (*Polar Bear*).

URSUS MARITIMUS.—*Cuv: Règ. An.*—vol. i., p. 137.

Rich: Faun. Bor. Amer.—p. 30.

Fab: Faun. Grænl.—p. 22.

Is found in greater numbers in the neighbourhood of Port Bowen, and Batty Bay, in Prince Regent's Inlet, than in any other part of the Polar Regions that I have visited in the course of the several expeditions of discovery. This circumstance, probably, arises from Lancaster Sound being but seldom covered by permanently fixed ice; and therefore affording them means of subsistence during the severity of an Arctic winter; and also from its being most remote from the usual winter residence of any of the Esquimaux, who alone dispute the sovereignty of the north with this monarch of its ferine inhabitants.

During our stay at Fury Beach many of these animals came about us, and several were killed. At that time we were fortunately in no want of provisions, but some of our party, tempted by the fine appearance of the meat, made a hearty meal off the first one that was shot. All that partook of it soon after complained of a violent headache, which, with some, continued two or three days, and was followed by the skin peeling off the face, hands, and arms; and in some, who had probably partaken more largely, off the whole body.

On a former occasion I witnessed a somewhat similar occurrence, when, on Sir Edward Parry's Polar journey, having lived for several days wholly on two bears that were shot, the skin peeled off the feet, legs, and arms of many of the party. It was

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then attributed rather to the *quantity* than the *quality* of the meat, and to our having been for some time previous on very short allowance of provision. The Esquimaux eat its flesh without experiencing any such inconvenience; but the liver is always given to the dogs, and that may possibly be the noxious part. The Esquimaux of Boothia Felix killed several during their stay in our neighbourhood in 1830—all males.

The males are considerably larger than the females, as will be seen by the following measurements, being the average of nine males and seven females taken by myself:

	Male.	Female.
Length from snout to the end of the tail	94 inches	78.7 inches
snout to shoulder	33.5 . . .	26.3
snout to occiput	18.4 . . .	15.6
Circumference before the eyes	20.4 . . .	15.8
at broadest part of the head	32.2 . . .	28
at largest part of the abdomen	65.2 . . .	57.6
Length of alimentary canal	61 feet . .	52 feet
Weight	900 lbs. . .	700 lbs.

The weight varies very much according to the season and condition of the animal.

The largest of the above measured 101.5 inches in length, and weighed 1028 lbs., although in poor condition.

2.—GULO LUSCUS (*Wolverene*).

GULO LUSCUS.—*Cuv: Règ. An.*—vol. i., p. 141.

Rich: Faun. Bor. Amer.—p. 41.

Sab. in Supp. to Appx. to Parry's 1st Voy.—p. clxxxiv.

Kã ẽ wẽẽk.—Esquimaux of Boothia Felix.

Kab le a rioo.—Esquimaux of Melville Peninsula.

Some traces of the existence of this animal in the highest northern latitudes were observed on two of the preceding Arctic expeditions; but none of the animals were seen on either of those occasions: although we now know that it remains throughout the winter as far north as the 70° of latitude, and is not, like some other animals of that rigorous climate, subject to any change of colour from the most intense cold.

A few days previous to the arrival of the Esquimaux near Felix Harbour, in January, 1830, the tracks of this animal were first seen; and soon after, the skins of two old and two young ones were brought to the ship by the natives, who had taken them in traps built of stones.

During each of the following winters their tracks were occasionally seen, and at Victoria Harbour they were very numerous. There, in the middle of the winter, two or three months before we abandoned the ship, we were one day surprised by a visit from one, which pressed hard by hunger, had climbed the snow wall that surrounded our vessel, and came boldly on deck, where our crew were walking for exercise. Undismayed at the presence of twelve or fourteen men, he seized upon a canister which had some meat in it, and was in so ravenous a state that whilst busily engaged at his feast he suffered me to pass a noose over his head, by which he was immediately secured and strangled. By discharging the contents of two secretory organs, it emitted a most insupportable stench. These secretory vessels are about the size of a walnut, and discharge a fluid of a yellowish-brown colour, and of the consistence of honey, by the rectum, when hard pressed by its enemies.

The descriptions of authors are sufficiently accurate; but the following dimensions may be useful:

Length from snout to the insertion of the tail	28.4 inches
of the tail	9.8 (vertebræ)
of the hair of the tail	6
	—
	44.2 inches
	—

Length from snout to shoulder	11.2 inches
to occiput	6.5
Extreme breadth of head	4.1
Circumference at ensiform cartilage	14.5
at neck	10.6
at broadest part of the head	13

Vertebræ—Cervical 7

Dorsal 15 (10 true and 5 false ribs)

Lumbral 5

Sacral 3 (now in one)

Caudal 15

It was a female, and weighed 27½ lb

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3.—MUSTELA ERMINEA (*Ermine*).

MUSTELA ERMINEA.—Cuv: *Règ. Anim.*—vol. i., p. 145.

Rich: *Faun. Bor. Amer.*—p. 46.

These beautiful and elegant little animals were by no means numerous; but their tracks were occasionally seen during the winter, following those of the Lemmings, upon which they chiefly subsist during that inclement part of the year. It is almost impossible to tame them, preferring rather to die than live in confinement. One that came on board of our ship and was taken, although treated with the greatest kindness, its restless and vicious nature so completely exhausted it, that it died at the end of a week or ten days. The Ermine assumes its winter dress early in September, and again changes to brown towards the end of May. It is the great enemy of the Lemming, and in its turn is preyed upon by the Fox.

It is 18 inches long, and weighs $5\frac{1}{2}$ oz.

4.—CANIS LUPUS OCCIDENTALIS (*American Wolf*).

CANIS LUPUS.—Cuv: *Règ. Anim.*—vol. i., p. 150.

CANIS LUPUS OCCIDENTALIS.—Rich: *Faun. Bor. Amer.*—p. 60.

Considerable numbers of this animal were seen on the narrow Isthmus of Boothia, where they arrive early in the spring to intercept the Reindeer on their way to the north. None were killed by us during our late voyage, owing to their extreme wariness; but their tracks were occasionally seen during each of the winters. They are very troublesome to the Esquimaux, robbing their hoards, tearing the skin covering off their canoes, and killing their dogs. It is a remarkable circumstance, that a single wolf will go amongst any number of Esquimaux dogs, and carry off any one from amongst them without the others attempting to attack it. Such is their extreme dread of the Wolf, that they begin to tremble and howl whenever they are aware of its approach. The Wolf will seldom attack a man, except when starving; but if alone and unarmed, it will not care to get out of his way.



ARCTIC FOX

5.—CANIS LAGOPUS (*Arctic Fox*).

CANIS LAGOPUS.—Cuv: *Règ. Anim.*—vol. i., p. 153.

Rich: *Faun. Bor. Amer.*—p. 83.

Sabine, in *Franklin's 1st Journey*—p. 658.

Rich: *Appendix to Parry's 2d Voy.*—p. 299.

Inhabits the highest northern latitudes throughout the winter, and is provided with the finest and thickest fur, to enable it to withstand the intense cold of those regions.

The young generally migrate to the southward late in the autumn, and collect in vast multitudes on the shores of Hudson Bay: they return early the following spring along the sea-coast to the northward, and seldom again leave the spot they select as a breeding place.

The summer fur of this beautiful animal is admirably described by Mr. Sabine, *loc. cit.*; and the winter dress by Dr. Richardson, *ut supra*, where an interesting detail of its habits is given.

In most of the individuals taken in February we observed that the long hairs on the back and loins are tipped with black, to the extent which they project beyond the rest of the fur: this is particularly the case in the females.

It brings forth from six to eight young early in June. In July, 1831, one of their burrows was discovered on the sandy margin of a lake; it had several passages, each opening into a common cell, beyond which was an inner cell, where the young, six in number, were taken. They were precisely of the same colour as the old ones at that season of the year. Hearne says, that "the young are all over of a sooty black;" this probably refers to the following variety of the Arctic Fox. In the outer cell, and in the several passages leading to it, we found great numbers of the two species of Lemming, several Ermine, and the bones of hares, fish, and ducks, in great quantities. Four of the young foxes were kept alive till the end of the following winter, and were a great amusement to our crew by their playfulness, as they soon became very tame. They never attained the pure white of the old Fox, a dusky lead colour remaining about the face and sides of the body.

There is a remarkable difference in the disposition of these animals, some being easily tamed, whilst others remain savage and untractable, notwithstanding the kindest treatment. The females are much more vicious than the males. A Dog Fox that lived several months became so tame in a short time, that he regularly attended our dinner-table like a dog, and was always allowed to go at large about the cabin.

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A pair kept for the purpose of watching the changes of their fur, threw off their winter dress during the first week in June; the female a few days earlier than the male. Towards the end of September the brown fur of summer gradually became of an ash colour, and by the middle of October was perfectly white: from that period it continued rapidly to increase in thickness until the end of November, when the last of the two died, having lived in confinement nearly ten months.

The flesh of the young Fox is white, and well flavoured. Dr. Richardson says, "Captain Franklin's party agreed with Hearne in comparing the flavour of a young Arctic Fox to that of the American Hare." Captain Lyon considered it to "resemble the flesh of the kid;" whilst those of our party, who were the first to taste them, named them "lambs," from their resemblance in flavour to very young lamb. The flesh of the old Fox is by no means so palatable; and the water it is boiled in becomes so acrid as to excoriate the mouth and tongue. During our late expedition, they constituted one of the principal luxuries of our table, and were always reserved for holidays and great occasions. We ate them boiled—or more frequently after being parboiled, *roasted* in a pitch kettle.

They were taken by us in considerable numbers, and formed a valuable addition to our provisions when meat was very scarce.

The females are somewhat smaller than the males, and generally in poorer condition.

The average weight of twenty males being 7 lb. 4 oz.; of twenty females, 5 lb. 11 oz.

	Males.	Females.
Length from snout to insertion of tail .	22.4 inches	21.8 inches
to end of vertebræ of tail	35	33.5
Length of fur in each 2.7 inches beyond the vertebræ of the tail.		
Length of the head measured with callipers	5.5 inches	
Mean length of the alimentary canal .	86.7	
of the intestinum cæcum .	4.5	

6.—CANIS LAGOPUS (*Var. β. Fuliginosus*).

CANIS LAGOPUS FULIGINOSUS.—*Rich: Faun. Bor. Amer.*—p. 89.

This variety of the Arctic Fox is much more rare than the preceding, only three individuals having been captured out of fifty of the pure white kind. Indeed in a

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country which presents an unvaried white surface, they must have extreme difficulty in surprising their prey, and be much more exposed to the persecutions of its enemies.

It is somewhat larger in its measurements than the white variety.

	Male.
Length from snout to insertion of the tail .	23.7 inches
to end of vertebræ of the tail . .	36.2
of the head measured with callipers	5.7

7.—ARVICOLA HUDSONIA (*Hudson's Bay Lemming*).

LEMMUS HUDSONIUS.—*Cuv: Règ. Anim.*—vol. i., p. 207.

ARVICOLA HUDSONIA.—*Rich: Faun. Bor. Amer.*—p. 132.

Rich: App. to Parry's 2d Voy.—p. 308.

The smallest of the quadrupeds of the Polar Regions, and has been found in the highest latitude that has yet been attained: even on the ice of the Polar Ocean, to the northward of the 82° of latitude, the skeleton of one was found.*

It has never been met with far in the interior of the country, preferring to congregate during the summer months along the sea-shores, where amongst large loose stones they rear their young, and find shelter from their numerous enemies. In the winter season, each individual makes a nest of dried grass, on the surface of the earth, beneath the snow, and has many passages in different directions from its nest, along which it passes in search of food. It seldom appears during the winter, but its tracks are occasionally to be met with even in the coldest weather; but from the whiteness of its fur, and the rapidity with which it burrows beneath the surface of the snow, it is seldom taken at that season of the year.

It feeds chiefly on the roots of *Polygonum Viviparum*, on grasses, vetches, and during the summer on almost every kind of plant the country produces; but is nevertheless fond of animal food, even to devouring its own species; and the salmon hoards of the Esquimaux frequently furnish provision to numbers of these animals during the winter.

* See Appendix to Parry's Polar Journey, p. 190.

It brings forth from four to eight young at various periods of the year: thus one taken by us in March had four young *in utero*, nearly matured; and a nest with six young ones, blind, naked, and helpless, was found on 12th July; they abandoned their nest on the 22d.

It is easily tamed, and fond of being caressed; one that had been but a few days confined, escaped during the night, and was found next morning on the ice alongside the ship: on putting down its cage, which it recognised in the servant's hand, it immediately went into it. It lived for several months in the cabin; but finding that, unlike what occurred to our tame hares under similar circumstances, it retained its summer fur, I was induced to try the effect of exposing it for a short time to the winter temperature.

It was accordingly placed on deck in a cage, on the 1st of February; and next morning, after having been exposed to a temperature of 30° below zero, the fur on the cheeks and a patch on each shoulder had become perfectly white. On the following day the patches on each shoulder had extended considerably, and the posterior part of the body and flanks had turned to a dirty white: during the next four days the change continued but slowly, and at the end of a week it was entirely white, with the exception of a dark band across the shoulders, prolonged posteriorly down to the middle of the back, forming a kind of saddle, where the colour of the fur had not changed in the smallest degree. The thermometer continued between 30° and 40° below zero until the 18th, without producing any further change, when the poor little sufferer perished from the severity of the cold.

On examining the skin, it appeared that all the white parts of the fur were longer than the unchanged portions; and that the ends of the fur only were white, so far as they exceeded in length the dark-coloured fur; and by removing these white tips with a pair of scissars, it again appeared in its dark summer dress, but slightly changed in colour, and precisely the same length as before the experiment.

8.—ARVICOLA TRIMUCRONATA (*Back's Lemming*).

ARVICOLA TRIMUCRONATA.—*Rich: App. to Parry's 2d Voy.*—p. 309.

Although seen by us on the coast of Boothia Felix in considerable numbers, it is not so generally to be met with in the Arctic Regions as the preceding species.

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The individual specimen from which Dr. Richardson's very accurate description was drawn, was taken by Captain Back (in honour of whom it has been named) on Point Lake, in latitude 65° N. It was a female of smaller dimensions than those we have generally met with; for Dr. Richardson states it to be a little *inferior* in size to the Hudson's Bay Lemming: whereas a comparison of the average measurements and weight of above twenty of each species is in favour of the latter.

No specimens of this species were obtained during the winter; but it is more than probable that, like the preceding species, it is white during that season.

The first fur of the young, as in the Hudson's Bay Lemming, is rather more obscure than that of the parents; and even in this early state the two species are easily distinguishable by their colour, the trimucronate thumb not being at first so very apparent.

9.—ARCTOMYS PARRYI (*Parry's Marmot*).

ARCTOMYS PARRYI.—*Sab: in App. to Franklin's 1st Journey.*

Rich: in App. to Parry's 2d Voy.

Rich: in Faun. Bor. Amer.—p. 158.

None of these animals were seen during our late voyage in the Victory; nor do I believe they have ever been found far north of the Arctic Circle. I notice it here merely to mention that some of the dresses of the Esquimaux who had lately left Repulse Bay were made of its skins. These people told us that it was very numerous in those parts.

10.—LEPUS GLACIALIS (*Polar Hare*).

LEPUS GLACIALIS.—*Rich: Faun. Bor. Amer.—p. 221.*

LEPUS TIMIDUS.—*Fab: Faun. Grænl.—p. 25.*

There is scarcely a spot in the Arctic Regions, the most desolate and sterile that can be conceived, where this animal is not to be found, and that too throughout the winter:

nor does it seek to shelter itself from the inclemency of the weather by burrowing in the snow, but is found generally sitting solitary under the lee of a large stone, where the snow-drift as it passes along seems in some measure to afford a protection from the bitterness of the blast that impels it, by collecting around and half burying the animal beneath it.

It is accordingly provided with a remarkably fine, thick, woolly fur, admirably calculated to withstand the most intense cold.

In summer it is found chiefly at the foot and sides of gentle acclivities, where amongst the large loose stones it finds some secure retreat to bring forth its young. A female killed by one of our party at Sheriff Harbour, on the 7th of June, had four young *in utero*, perfectly mature, $5\frac{1}{2}$ inches long, and of a dark gray colour. In one shot by us at Igloodik, on the 2d of June, six young were found, not quite so far advanced; and Fabricius, who states that he has himself seen eight young *in utero*, says it brings forth many young towards the end of June. One taken by us on the 28th of June a few days after its birth, soon became sufficiently tame to eat from our hands, and was allowed to run loose about the cabin. During the summer, we fed it on such plants as the country produced, and stored up a quantity of grass and astragali for its winter consumption; but it preferred to share with us whatever our table could afford, and would enjoy pease soup, plum pudding, bread, barley soup, sugar, rice, and even cheese, with us. It could not endure to be caressed, but was exceedingly fond of company, and would sit for hours listening to a conversation, which was no sooner ended than he would retire to his cabin: he was a continual source of amusement by his sagacity and playfulness, until in the middle of winter, when playing some of his pranks, he struck his head against one of the beams, and was ever after subject to fits. He lived and thrived nevertheless throughout the winter, and died in the following summer after fifteen months' confinement.

Although constantly in a temperature never much below the freezing point, its fur assumed its white colour as early as those that were running wild, and exposed to the climate; and although it cast its winter coat early in May, it was replaced by a pure white fur; from which, it is probable that the old males are not subject to the same change as the females in summer. Fabricius says, that "the Greenland Hare is white both in summer and winter." Amongst the inhabitants of Greenland, one Esquimaux woman was found who spun some of the beautiful white wool of the Hare into a thread, and knitted several pairs of gloves; one pair of which, notwithstanding the native filthiness of the Esquimaux, came into my possession beautifully white. It very much resembles the Angola wool, but is still more soft.

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11.—CERVUS TARANDUS (*Reindeer*).

CERVUS TARANDUS.—*Cuv: Règ. Anim.*—vol. i., p. 261.

Rich: Faun. Bor. Amer.—p. 238.

Rich: App. Parry's 2d Voy.—p. 326.

Although this animal was seen in great numbers on the Isthmus of Boothia, only one individual was killed in the course of our late voyage. It was a fine buck, of larger size than ordinary, and weighed 250 lb.; the average of those killed at Spitzbergen and Melville Island did not exceed half that weight.

The does arrived about the middle of April, the bucks nearly a month later; and herds of several hundreds were seen about the Isthmus towards the end of May. Numbers of the fawns, which at that period are in a very weak state, are killed by the natives, who hunt them with their dogs; and the does themselves often fall victims to their attachment to their offspring.

The natives of Boothia depend chiefly on the skins of these animals for their beds and clothing; their bows and spears are principally made from their horns, which being softened by steeping in water are easily cut into shape, even with their rude knives; and the sinews of the Reindeer make the best thread. The paunch, termed by them *ner-rook-kah*, is esteemed a great delicacy; and its contents is the only vegetable food which the natives ever taste.

It feeds on the *usnæ*, *alectoriæ*, *cetrariæ*, and other lichens in the early part of spring; but as the summer advances, the young and tender grass fattens so quickly, that in August they have been killed with several inches thick of fat on their haunches. In this state the meat is equal to the finest English venison; but is most tasteless and insipid when in poor condition.

Dr. Richardson *loc. cit.* has given a most detailed and interesting account of the several uses to which every part of this animal is put, and the various ways by which it is captured or killed in different parts of the American continent.

The natives of Boothia seldom hunt it in the spring, and then the bow and arrow is their only mode of killing it; but in the autumn, as the animal returns from the north in fine condition, they are destroyed in great numbers by parties of the natives driving them into the water, whilst others in canoes kill them with spears at their leisure.

Although they migrate, towards the middle of September, to milder climes, yet stragglers are occasionally seen in the winter.

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Length from snout to insertion of tail	. 70 inches
length of tail	. 5.2
hair of the tail	. 2
	—
Extreme length	. 77.2
	—
Height at fore shoulder	. 51 inches
hind quarter	. 53
Girth behind the fore legs	. 55

12.—OVIBOS MUSCHATUS (*Musk Ox*).

OVIBOS MUSCHATUS.—*Rich: Faun. Bor. Amer.*—p. 271.

BOS MUSCHATUS.—*Cuv: Règ. Anim.*—p. 281.

Sabine, in App. to Franklin's 1st Journey—vol. i., p. 668.

Rich: in App. to Parry's 2d Voy.—p. 331.

MUSK OX.—*Hearne's Journey*—p. 137. *Pennant, Arctic Zool.*—vol. i., p. 9.

Oo ming mak.—Esquimaux.

The circumstance of this animal and the Reindeer having been found in Melville Island, led to the belief that a chain of islands, at no great distance from each other, connected Melville Island with the shores of the continent. The recent discovery of the Isthmus of Boothia, and the fact that the continent of America extends to the 74th degree of north latitude, affords an easy solution of the route by which this animal visits the North Georgian Islands. They are said by the natives to be very numerous between the Isthmus of Boothia and Repulse Bay; but are not found to the westward, the whole country being of low limestone formation, whilst the rugged granite hills are the favourite resort of the Musk Ox.

On one of my surveying excursions from the ship, in April, 1830, we were fortunate in meeting with two of these animals, which we killed; they were both males, in very fine condition. We found the meat most excellent food, and quite free from any musky

flavour, although the skin smelt strongly of it. The account of the manner in which the natives hunt this animal will be found in the narrative.

The Esquimaux informed us, that at Aw-wuk-too-teak the Musk Ox is frequently seen in considerable numbers. It is not so highly valued by them as the Reindeer; its hide being too thick and hard for clothing, is used only for beds.

The dung of the Musk Ox, as well as of the Reindeer, when fresh, is considered a delicacy by the natives.

There is an excellent drawing of the Musk Ox in Captain Parry's Narrative of his First Voyage, p. 257, by Lieut. Beechy. The description by Dr. Richardson is most accurate; and a very fine specimen brought from Melville Island is preserved in the British Museum.

13.—PHOCA FŒTIDA (*Rough Seal*).

PHOCA FŒTIDA.—Cuv: *Règ. Anim.*—vol. i., p. 168.

Fab: Faun. Grænl.—p. 13.

Rich: App. to Parry's 2d Voy.—p. 332.

ROUGH SEAL.—Penn: *Quad.*—vol. ii., p. 278; and *Arctic Zool.*—vol. i., p. 160.

Inhabits the seas both on the east and west sides of the Isthmus of Boothia, and constitutes the principal means of subsistence to the inhabitants during eight or nine months of every year.

In July, August, and September, the Reindeer and Salmon afford to the Esquimaux an agreeable and salutary change. The skins of the Reindeer supply them with beds and clothes; but it is the Rough Seal on which they wholly depend for their winter's food; when all other animals have retired to a more temperate climate, the Seal is sought by the Esquimaux, whose dogs are trained to hunt over the extensive floes of level ice, and to scent out the concealed breathing-holes of the Rough Seal. So soon as one is discovered, a snow wall is built round it, to protect the huntsman from the bitterness of the passing breeze; where, with his spear uplifted, he will sit for hours until his victim rises to breathe, and falls an easy sacrifice to his unerring aim. In this manner, a party of thirty hunters killed 150 of these animals during the first two months they remained in our neighbourhood; the fishery for ten or twelve miles

round was then completely exhausted; so they broke up into several smaller parties, and dispersed in various directions. In the month of May, the Rough Seal, with its young, lie basking in the sun, close to holes in the ice, and are at that time very difficult to approach; but the natives imitate both their cry and action so exactly as to deceive the animals until they get sufficiently near to strike them with their spear. Fabricius says, it is the most heedless of all the Seals, as well on the ice as in the water: from our experience, we would certainly give them a very different character, for none of our sportsmen were ever able to get sufficiently near to shoot them. The natives of Boothia say they are not in their prime until the third year; and we never heard them complain of the offensive smell, which their more fastidious brethren in Greenland are said to dislike so extremely. The blood of the Rough Seal answers all the purposes of glue.

The Rough Seal resembles our common Seal, *P. Vitulina*, the principal differences being in the more diminutive size of the *P. Fatida*, its being clothed with a more woolly coat, and some slight differences in its colour; all of which may indeed be fairly attributed to difference of food and climate.

The average length from the snout to the extremity of the tail, of twenty measured by me, was 55 inches, the hind flippers extending 9 inches beyond the end of the tail; and the average weight of the same number was 199 lb.: the circumference immediately behind the fore-flippers being 49.7 inches. The females are larger than the males.

The average length of the young, when between five and six months old, was 38 inches; the weight 49 lb.; circumference as above, 28.6 inches; length of the alimentary canal, 49 feet 8 inches; and of the cæcum, 3½ inches.

It feeds chiefly on the *Mysis fluxuosus* and other small *Cancræ*.

14.—PHOCA GRÆNLANDICA (*Harp Seal*).

PHOCA GRÆNLANDICA.—Cuv: *Règ. Anim.*—vol. i., p. 168.

Egede, Grænl.—p. 62, fig. A.

HARP SEAL.—Penn: *Arct. Zool.*—vol. i., p. 163.

Kai ro lik.—Esquimaux of Boothia.

Unlike the preceding species, it is seldom met with on the fixed ice of the bays and inlets, but prefers the loose floating floes which constitute what is termed by the whale

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fishers "the middle ice" of Baffin's Bay and Davis Straits. It is, however, occasionally met with near the coast of Greenland.

We have never seen it in any part of Prince Regent's Inlet; but from the natives of Boothia we obtained several skins of this Seal, which they describe as being sometimes very numerous on the west side of the Isthmus, but is much more scarce than the preceding species. They have never seen any of this species on the east side of the Isthmus of Boothia.

15.—PHOCA BARBATA (*Great Seal*).

PHOCA BARBATA.—Cuv: *Règ. Anim.*—vol. i., p. 168.

Fab: Faun. Grænl.—p. 15.

Oo ge ook.—Esquimaux.

Is the largest of the Seals inhabiting the Polar Seas. It is but seldom sought after by the natives of Boothia, as it approaches the shores only in the summer season, when the salmon fishery wholly engrosses their attention. In winter it seeks those parts of the Arctic Ocean which are seldom, if ever, frozen over for any length of time.

No specimens were obtained.

16.—TRICHECHUS ROSMARUS (*Walrus*).

TRICHECHUS ROSMARUS.—Cuv: *Règ. Anim.*—vol. i., p. 171.

Fab: Faun. Grænl.—p. 11.

I we ak.—Esquimaux.

Inhabits the west coast of Baffin's Bay, and is occasionally seen in the northern part of Prince Regent's Inlet, but the natives of Boothia have never seen a Walrus; and

although we found amongst them several articles made from the tusks of that animal, they were all brought from Repulse Bay, where it abounds.

No specimens were obtained.

17.—DELPHINAPTERUS BELUGA (*White Whale*).

DELPHINAPTERUS BELUGA.—*Cuv: Règ. Anim.*—vol. i., p. 290.

DELPHINUS ALBICANS.—*Fab: Faun. Grænl.*—p. 50.

Scoresby's Arctic Regions—vol. ii., pl. xiv.

Seen abundantly in Prince Regent's Inlet, but none were taken by us.

18.—MONODON MONOCEROS (*Narwhal*).

MONODON MONOCEROS.—*Cuv: Règ. Anim.*—vol. i., p. 292.

Fab: Faun. Grænl.—p. 29.

Scoresby's Arctic Regions—vol. ii., pl. xv.

The Narwhal, or Sea Unicorn, though occasionally seen in great numbers in the upper part of Baffin's Bay and Prince Regent's Inlet, are but seldom killed, from the great difficulty of surprising them when sleeping on the surface of the water, and the very short time they remain up when they rise to breathe.

The oil produced from its blubber is considered superior to that of the Whale; and the horn is valuable. Two or three years ago, several hundreds of these animals were found dead along the west coast of Baffin's Bay by the vessels employed in the whale-fishery; and I was informed by Captain Humphreys, of the *Isabella*, that of a great many examined by him, the males only have the horn-shaped spiral tooth.

Fabricius says, that both male and female have this horn; and that sometimes, but very seldom, the male has two of equal size. A specimen of this may be seen in the

valuable museum of the Royal College of Surgeons; and an account of a female Narwhal, which had a horn similar to the male, is given in the 13th volume of the Transactions of the Linnæan Society, p. 620; but both these cases are of rare occurrence.

The largest horn I have seen measured $8\frac{1}{2}$ feet. In all the males the rudiments of a second horn or tooth is present; and in the female are two such rudimental teeth, each about 8 inches in length.

A female killed in June had one young *in utero*, nearly matured, of a bluish-brown colour, nearly 5 feet long.

Several skeletons of this animal were seen by us as we travelled along the eastern coast of the Peninsula of Boothia, but only one horn was found amongst them; it measured 7 feet in length, $9\frac{1}{2}$ inches in circumference at its insertion, and weighed 14 lb. 6 oz.

19.—BALÆNA MYSTICETUS (*Black Whale*).

BALÆNA MYSTICETUS.—Cuv: *Règ. Anim.*—vol. i., p. 296.

Fab: *Faun. Grænl.*—p. 32.

Scoresby's *Arctic Regions*—vol. ii., pl. xii.

The capture of the Whale, which gives employment to several thousands of our seamen, and has annually produced, on an average of the last twenty years, between eleven and twelve thousand tons of oil, and from five to six hundred tons of whalebone; has of late years greatly declined, owing to the increasing difficulties attending the fishery. Wearied by the incessant persecutions of man, the Whale has lately abandoned all the accessible parts of the Spitzbergen Sea, where it was by no means unusual to see sixty or seventy sail of British vessels engaged in its capture.

On the east side of Baffin's Bay, as far as the 72° of latitude, abundance of Whales of a large size were to be found, some few years ago; but, like the fishery in the Spitzbergen Sea, this also was deserted. The Whales retired to the westward of the then considered impenetrable barrier of ice that occupies the middle of Baffin's Bay.

In 1818 that barrier was passed by the first Expedition of Discovery, sent by the government to those regions; where the haunts of the Whale and the nursery for its young were laid open to the fishermen, whose daring enterprise and perseverance in following