white ſubſtance. This alteration of ſtructure had impeded the free paſſage of the blood, and gradually produced the appearances obſerved by M. Chauſſier in the left auricle and ventricle.

VI. *Obſervations on ſome Cauſes of the Exceſs of the Mortality of Males above that of Females.* By Joſeph Clarke, *M. D. Phyſician to the Lying in Hoſpital at Dublin. Communicated by the Rev.* Richard Price, *D. D. F. R. S. in a Letter to* Charles Blagden, *M. D. Sec. R. S.*—From the *Philoſophical Tranſactions of the Royal Society of London.* Vol. LXXVI. *For the Year* 1786. Part. II. 4to. London. 1786.

Newington-Green, Feb. 6, 1786.

SIR,

I RECEIVED ſome time ago the incloſed letters and regiſtry from Dr. Clarke, Phyſician to the Lying-in Hoſpital at Dublin. They contain ſome accounts that ſeem to me not improper to be communicated to the Royal Society.

The obſervations which have been made on the laws that govern human mortality prove,

that the mortality of males exceeds that of females in almoſt all the ſtages of life, and particularly in the earlieſt ſtages; and that this exceſs prevails moſt in great towns, and all the leſs natural ſituations of human life. The facts in theſe papers throw ſome light on this ſubject. Male fœtus's requiring more nutrition than female fœtus's, becauſe larger, and being alſo for this reaſon more liable to injury in delivery, are brought into the world leſs perfect: and this happening more or leſs in proportion to the vigour and juſt formation of the mother, it muſt happen moſt in thoſe ſituations where the greateſt tenderneſs of frame and deviations from nature take place. The truth, in ſhort, ſeems to be, that any debility in either parent muſt affect moſt the production of that ſex which requires the largeſt and ſtrongeſt ſtamina; and that ſuch debilities prevailing moſt in great towns and poliſhed ſocieties, the exceſs of the mortality of males muſt alſo be greateſt in ſuch ſituations. And this I reckon the principal reaſon of a circumſtance in human mortality which before I received theſe communications from Dr. Clarke, I did not ſo well underſtand.

With much reſpect I am, &c.

RICH. PRICE.

Dr.

Dr. Clarke's *firſt Letter to the Rev. Dr.* Price.

Dublin,

SIR,

IN your very uſeful Treatiſe on Life Annuities, &c. you remark *, that "it has been "obſerved, that the Author of nature has pro"vided, that more males ſhould be born "than females, on account of the particular "waſte of males, occaſioned by wars and other "cauſes. That perhaps it might have been "obſerved, with more reaſon, that this pro"viſion had in view that particular weakneſs "or delicacy in the conſtitution of males which "makes them more ſubject to mortality; and "which, conſequently, renders it neceſſary "that more of them ſhould be produced, in "order to preſerve in the world a due propor"tion between the ſexes." And further, you elſewhere remark †, that "the facts recited at "the end of your fourth Eſſay prove, that "there is a difference between the mortality of "males and females; but that you muſt how"ever obſerve, that it may be doubted, whether "this difference ſo unfavourable to males, be

* Vol. I. p. 373. † Vol. II. p. 247.

"natural

" natural; and that there are facts which prove " that you have reaſon for ſuch a doubt." After ſtating a number of very ſatisfactory facts of this kind you remark, that " the inference " from them is very obvious; that they ſeem " to ſhew ſufficiently, that human life in males " is more brittle than in females, only in con- " ſequence of adventitious cauſes, or of ſome " particular debility which takes place in po- " liſhed and luxurious ſocieties, and eſpecially " in great towns."

What thoſe adventitious cauſes are, or how this particular debility is produced and operates, are queſtions which appear to me highly intereſting and curious. I have therefore been at conſiderable pains to examine and arrange a very accurate and extenſive regiſtry in ſuch a manner as I hope will throw ſome light on theſe queſtions. As it is to the accuracy of modern regiſters that we are originally indebted for our knowledge of the facts in queſtion, I apprehend, it is from the ſame ſource only that we ſhall be enabled ſatisfactorily to explain them.

Of the regiſtry incloſed, I beg leave to obſerve to you, Sir, that it has been kept from its commencement by a man of uncommon accuracy (one of the under-clerks of the Houſe

of

of Commons); and that as the poor women and their children are obliged to paſs through his office, before leaving the Hoſpital, his ſituation is ſuch that there is no likelihood of his being deceived. It exhibits to our view the occurrences of twenty-eight years in above 20,000 inſtances: a number which I am inclined to think can hardly appear inſufficient for eſtabliſhing ſome general inferences and concluſions on a tolerably ſure foundation. Although my reaſoning on theſe matters ſhould not appear very concluſive, or my calculations perfectly accurate, yet I flatter myſelf, that the facts will neither be unacceptable nor uſeleſs to you.

I believe it may be ſafely aſſerted, that anatomy has not hitherto detected any internal difference between the animal œconomy of the male and female, which can be ſuppoſed to account for their difference of mortality, more eſpecially in early infancy; and this (it deſerves to be particularly remarked) is the period during which the chances are much the greateſt againſt male life. It is a matter of common obſervation that males, *cæteris paribus*, grow to a greater ſize than females, both *in utero* and every ſubſequent period of their growth. Conſequently,

ſequently, they muſt meet with more difficulty, and endure more hardſhip and fatigue, in the hour of birth. Accordingly, practitioners in midwifery, taught by experience, know, that when any conſiderable difficulty occurs in the birth of a child (for example, in all the different kinds of preternatural labours) they ſtand a much better chance of ſaving the life of a female than of a male. It is on this principle we can explain what our regiſtry concurs with others in proving, viz. that near one-half more males than females are ſtill-born. Naturaliſts are agreed, that the head of the human fœtus is larger in proportion to its body than that of any other animal; and I believe it is certain, that no animal whatever brings forth its young with ſo much difficulty, pain, and danger, as a woman. Now as we know that the head contains one of the moſt important organs of the body to life, it is highly reaſonable to ſuppoſe, that any additional injury which it ſuſtains in delivery may produce very material effects on the whole ſyſtem. Theſe effects though often may not be always immediate. They may operate in weakening the male conſtitution ſo as to render it more apt to be affected by any exciting cauſe of diſeaſe ſoon after

after birth, and leſs able to ſtruggle againſt it. It may be aſked, how this will apply to the difference of mortality in great towns and country ſituations? The anſwer evidently is, that in great towns rickets, ſcrophula, and other diſeaſes affecting the bones, and producing conſequent mal-conformation of the female ſex, are more frequent than in healthy country ſituations.

There is another circumſtance, Sir, which may have ſome influence in producing that particular debility which you mention. It is this: as the ſtamina of the male are naturally conſtituted to grow to a greater ſize, a greater ſupply of nouriſhment *in utero* will be neceſſary to his growth than to that of a female. Defects in this particular, proceeding from delicacy of conſtitution or diſeaſes of the mother, muſt of courſe be more injurious to the male ſex. And although the male children may be ſo lucky as to eſcape abortion and the perils of delivery, it is probable, that they will be more apt to languiſh under diſeaſe, or die at ſome future period, from the application of noxious cauſes to an originally half-ſtarved frame. To a perſon little accuſtomed to conſider phyſiological ſubjects, this reaſoning may appear ſomewhat obſcure.

It may, perhaps, be ſomewhat illuſtrated by conſidering that nouriſhment of the fœtus *after* birth which nature has provided for. Suppoſe every mother in a great city obliged to ſuckle and nurſe her own child, without the aſſiſtance of ſpoon-meat; and every mother in the adjacent country to do the ſame. Of the former there would not perhaps be one good nurſe in five; and of the latter, perhaps, not one bad in ten. The difference of mortality that would enſue both to mothers and children thus ſituated, and the greater ſufferings of the male than female ſex, may be eaſily calculated. We ſee that, when a women conceives twins, and has two fœtuſes *in utero* to nouriſh inſtead of one, it becomes peculiarly fatal both to her and her offspring. The chances are above four to one greater againſt her than againſt a woman bringing forth one child, and about two to one againſt her iſſue *.

Give me leave, Sir, to call your attention a little further to the facts relating to twins. They are ſingular and curious, at the ſame time that they ſerve to confirm ſome of the preceding

* Compare the 7th and 14th, 6th and 13th inferences in the annexed extracts.

reaſoning.

reaſoning. Near *one-half* more twins die, and near *one-third* more are ſtill-born, than of ſingle children. And why?—It is not becauſe they meet with greater difficulties in the birth. On the contrary, it is a known fact, that, being much leſs than other children, women bring them forth with more eaſe. Does it not then proceed from a ſcanty nutrition, by which they are oftener blighted *in utero* than ſingle children; and, when born alive, have leſs ſtrength to ſupport life through the firſt ſtages of its exiſtence.

It is farther worthy of obſervation, that though *double* the numbers of twins die and are ſtill-born, compared to ſingle children, yet the proportion of male twins loſt to females is *leſs*. Only one-fifth more of the male ſex die than of the female, and only one-third more is ſtill-born. Whereas of ſingle children, whoſe proportional mortality is one-half leſs, *one-fourth* more of the male ſex die, and near double the number is ſtill-born. To what then are we to attribute this leſſened mortality in favour of male twins? Probably to their brain and nervous ſyſtem ſuffering leſs during delivery, on account of their heads being much ſmaller than

thoſe of ſingle children. Were I diſpoſed to be prolix, I could offer many more plauſible arguments on this ſubject; but to you, Sir, I am ſure they would be unneceſſary. There is only one circumſtance remaining, relative to the proportion of the ſexes, which I cannot paſs over in ſilence. We ſee evident wiſdom in the creation of a greater number of males than females; but why the proportion they bear to each other differs in different countries and ſituations, and why there ſhould be a ſeventeenth more males born of ſingle children than twins, are queſtions which I leave to be decided by thoſe philoſophers who underſtand the theory of generation better than I do. Be this as it may, I am convinced that the majority in favour of the male ſex is ſooner deſtroyed than the generality of writers ſeem to be aware of. Did the limits of this letter permit, I think, I could prove from Dr. Short's own data *, that the majority of males is deſtroyed long before the common marriageable period; but I ſhall content myſelf with an obſervation or two on the regiſtry before us. If one-half of the whole born in this Hoſpital die before three years, which is the eſtabliſhed com-

* New Obſervations, p. 72. & ſeq.

putation

putation for great cities; and if, on the loſs of ſomewhat more than a *third* of this half, a majority of 1177 be reduced to 483 by a loſs of 694, as appears from the regiſtry, it is pretty evident, that by the death of the two remaining thirds, a majority will be left in favour of the female ſex. It is obvious, that the ſtatement with regard to twins corroborates this ſuppoſition; for of them, inſtead of a fifth, there is near one *half* dead and ſtill-born, the conſequence of which is, that we ſend out a majority of females. It may be objected, that their males do not bear ſo great a proportion to the females; and that, therefore, it is not to be expected they ſhould keep up their majority ſo long. But there is only a ſeventeenth fewer males produced; whereas it has been already ſhewn, that there is a much greater proportion between the deaths of ſingle and twin males againſt the former and in favour of the latter.

Such are the outlines, Sir, of my ſentiments on this ſubject. I have aſſumed the liberty of addreſſing them to you without ceremony, as a well-wiſher to every member of the republic of letters. I ſhall be happy, ſhould your ſentiments

ments happen to coincide with mine, or if I can be of any farther ſervice in promoting your very laudable inquiries.

I am, Sir, with great reſpect, &c.

JOSEPH CLARKE.

Lying-in Hoſpital,
June 9, 1785.

Dr. Clarke's *ſecond Letter to the Rev. Dr.* Price.

Dublin, Oct. 22. 1785.

SIR,

ENCOURAGED by your approbation of my former letter, I will take the liberty of ſtating to you a few more facts and obſervations, which I hope you will judge an appendix to it of ſome importance.

With the view of aſcertaining how far ſome of the foregoing conjectures are well founded, and of determining with greater preciſion the more obvious differences between the male and female ſex in infancy, I began in the month of July laſt by weighing forty children, twenty of each ſex, and by taking the dimenſions of their heads. In the months of Auguſt and September I repeated the ſame experiment twice, taking ſuch children as appeared to have arrived at the full

full period of geſtation promiſcuouſly as they happened to be born.

I weighed them all a few hours after birth, before they had taken food, and before purgative medicines had time to operate. For this purpoſe, I made uſe of a ſmall ſpring or pocket ſteelyard, which weighs any thing (not heavier than a few pounds) appended to it with ſufficient accuracy. To this was attached a flannel bag, into which the children were put, at firſt, naked; but this I ſoon found troubleſome. The nurſes often wanted time ſufficient to aſſiſt me, and timid mothers were afraid of their infants catching cold; I was therefore obliged to weigh them with their cloaths on, and to ſubtract a certain quantity from the groſs weight of each child, according as it was full, middling, or light cloathed. Whatever inaccuracy this may have introduced, as to the real weight of the children, it can but little influence their comparative weights, or the differences between the two ſexes, which it was my object to aſcertain.

For meaſuring their heads, I made uſe of a piece of painted or varniſhed linen tape, divided into inches, halves, and quarters. The varniſh has the good effect of preventing the length of ſuch a meaſure being readily affected by variations

tions in the humidity of the atmosphere, &c.; and it has little or no elasticity. In this part of the experiment then I can pretend to considerable accuracy. I took first the greatest circumference of the head from the most prominent part of the occiput around over the frontal sinuses; and, secondly, the transverse dimension from the superior and anterior part of one ear, across the fontanelle, to a similar part of the opposite ear. These dimensions appeared to me the most likely to afford data for determining the respective sizes of the brain in the different sexes. The result was as follows:

Twenty males.			Twenty females.		
Weight. lbs. &c.	Circumference of heads. Inches.	Dimensions from ear to ear Inches.	Weight. lbs. &c.	Circumference of heads. Inches.	Dimensions from ear to ear. Inches.
Experiment 1.					
149½	282	152	137¼	272	143
Experiment 2.					
144½	277	146¼	135	272	147
Experiment 3.					
248	280	147½	132	273	143¼
Totals.					
442	839	445¾	404¼	817	433¼
Average weight, &c.					
7lbs.5oz.7dr. 14		7¼	6lbs.11oz.6dr.	13⅛	7⅖

Having

Having found the relative proportions between the ſexes to turn out thrice with ſo much uniformity, and obſerving them to correſpond pretty nearly with ſome experiments, made for very different purpoſes by the late Profeſſor Roederer, of Gottingen, I did not think it neceſſary to proſecute the ſubject farther.

Upon the whole, it may be obſerved, that the difference of weight between the male and female at birth may be rated at about nine ounces, or nearly a twelfth part of the original weight. In the circumference of their heads there is a difference of near half a inch, or about a 28th or 30th part; and the ſame proportion of a 28th is pretty nearly preſerved in the tranſverſe dimenſion. It is evident, as the bony paſſage through which infants paſs is of a certain determined capacity, that, were their heads equally incompreſſible with thoſe of adults, the difference of half an inch in their ſize would often prove fatal to them. By the compreſſibility of their heads, however, in well formed women, this difficulty is by time ſurmounted. The effects which ſuch a compreſſion on the brain may produce, have not hitherto been well attended to.

In reckoning children, weighing from $5\frac{1}{2}$ to $6\frac{1}{2}$, 6 pounds weight, and from $6\frac{1}{2}$ to $7\frac{1}{2}$, 7, and so forth, in order to avoid fractions, I find the number of males and females, arranged according to their weight, to stand as follow.

	Males.								Females.							
lbs.	4	5	6	7	8	9	10		lbs.	4	5	6	7	8	9	10
N°	0	3	6	32	16	2	1		N°	2	9	14	25	8	2	0

Hence it appears, that the majority of males runs thus: seven, eight, six, five; whilst that of the females is seven, six, five, eight. Hence also appears the merciful dispensations of Providence towards the female sex; for when deviations from the medium standard occur, it is remarkable that they are much more frequently below than above this standard. In 120 instances there are only five children exceeding eight pounds and a half in weight. The same may be observed with regard to the size of their heads. Only six measured above $14\frac{1}{2}$ inches in circumference, and these all of the male sex; five measured $14\frac{3}{4}$, and one 15. In transverse dimensions only four exceeded $7\frac{3}{4}$, the largest of which was $8\frac{1}{2}$; whereas deviations under the standard n these particulars were very numerous

numerous, never however under 12 around and 6¼ acroſs.

In the year 1753, Dr. Roederer publiſhed a Paper, *De pondere & longitudine Infantum recens natorum*, in the Commentaries of the Royal Society of Gottingen, of which the celebrated Haller was the principal inſtitutor, and long the preſident. In this Paper he proves, in the cleareſt manner, by inconteſtible experiments, the abſurdity of the ideas of obſtetric writers with regard to the progreſs of the ovum during geſtation, and the weight of the fœtus after birth. He ſhews, although they ſtate the weight of the fœtus, come to the full time, to be from 12 to 14 or 16 pounds, that it is more generally 6 or 7, and very rarely exceeds 8. This deſerves particular notice for two reaſons; firſt, becauſe it ſerves to ſhew how little dependence is to be placed on the aſſertions of authors who copy each other ſervilely, without having recourſe to experiment even in the moſt obvious caſes; and, ſecondly, becauſe this paper has been overlooked by ſome of the moſt celebrated writers and teachers of midwifery now living. What idea are we to form of the accuracy of one of our lateſt ſyſtematic

writers, who (telling us that he has been a practitioner of midwifery, in a capital city, for twenty years, and a teacher for more than twelve) ſtates, in one page of his work, that the weight of a fœtus at eight months is about ſeven pounds; and on the oppoſite page, that at full time it weighs from twelve to fourteen pounds * ?

Of twenty-ſeven children, carried to the full period of geſtation, weighed and meaſured in length by Roederer, without any attention to the difference of ſex, I find, that eighteen were of the male and nine of the female ſex; and that the average weight of the former was about 6 lbs. 9 oz., that of the latter about 6 lbs. 2 oz. 2 dr. Whether he and I uſed the ſame weights, I cannot exactly ſay. He obſerves, that he uſed the civil pound of Gottingen, which I can eaſily perceive conſiſted of 16 ounces, as mine did; but whether a German ounce be the ſame with ours, I have not *data* to determine. The average length of the males

* See a Treatiſe of Midwifery (pages 88. and 89.) diveſted of technical terms and abſtruſe theories, by A. Hamilton, M. D. 8vo. edit. London, 1781.

mea-

meaſured by him is about 20$\frac{1}{3}$ inches, and of the females about 19$\frac{17}{18}$. He weighed alſo the placentæ of 21 lying-in women, 16 of whom had borne male children, and five female. The average weight of the former was 1 lb. 2$\frac{1}{2}$ oz.; that of the latter 1 lb. 2 oz. Hence it appears, that in other circumſtances, beſides thoſe I have taken notice of, the male and female ſex differ. So far I thought it neceſſary to take extracts from Dr. Roederer's paper, as his obſervations and mine throw light on each other, and add confirmation to both.

The limits of this letter will not permit me, Sir, to treſpaſs much farther on your patience. There is one circumſtance or two ſo intimately connected with my former letter, that I cannot paſs them over in ſilence. Having found that males ſuffer more in the birth than females, I was deſirous of knowing whether the chance of the mother's recovery was thereby in any degree affected; and to determine this I was once more at the pains of turning over our regiſtry with care. I found, that of 214 women, dead of ſingle children, 50 were delivered of ſtill-born males, and 15 of ſtill-born females; 76 of living males, and 73 of living females.

females. Of the 15 dead of twins, 6 had twins one of each ſex; 6 others had twins both of the male ſex; and three had twins both of the female ſex. All of which twins (two or three excepted), it is very remarkable, ſurvived the death of their mothers. It would appear then, that the life of the mother is principally endangered in thoſe caſes where the bulk of the male's head precludes the poſſibility of his being brought into the world alive, either by the efforts of nature or art. The conception of twins we have obſerved to be more fatal to the mother than that of ſingle children. The average weight of 12 twins, which have occurred to me of late, I find to be 11 lbs. a pair. The largeſt pair weighed 13 lbs. and the leaſt 8½. From ſome rude attempts made to aſcertain the weight of the contents of the gravid uterus in caſes of twin and ſingle children, I am inclined to think, that they are to each other as about 15 to 10, or perhaps 14½ to 9¼.

Believe me, Sir, with great reſpect, &c.

J. CLARKE.

VII. *Expe-*

An Abstract of the Registry kept at the Lying-in Hospital, in Dublin,

From the 8th of December, 1757, to the 31st of December, 1784.

By B. H. Register.

		Number of Patients admitted.	Went out not delivered.	Delivered in the Hospital.	Boys born.	Girls born.	Total number of children.	Women having twins.	Children dead.	Children still-born.	Women dead.
From 8th to 31st December, - - -	1757	55	—	55	30	25	55	—	6	3	1
Year ending 31st of December, - -	1758	455	1	454	255	207	462	8	54	21	8
	1759	413	7	406	228	192	420	13	95	22	5
	1760	571	15	556	300	260	560	1 had 3 4	116	36	4
	1761	537	16	521	283	249	532	11	104	29	9
	1762	550	17	533	279	266	545	12	106	33	6
	1763	519	31	488	274	224	498	12	94	29	9
	1764	610	22	588	287	308	595	7	83	28	12
	1765	559	26	533	288	251	539	6	94	25	6
	1766	611	30	581	324	261	585	4	111	18	3
	1767	695	31	664	373	301	674	10	125	29	11
	1768	689	34	655	362	302	664	9	154	47	16
	1769	675	33	642	350	301	651	9	152	38	8
	1770	705	35	670	372	305	677	7	107	37	8
	1771	724	29	695	370	341	711	16	102	44	5
	1772	725	21	704	368	344	712	8	116	32	4
	1773	727	33	694	367	344	711	17	136	31	13
	1774	709	28	681	357	334	691	10	154	29	21
	1775	752	24	728	364	378	742	14	122	27	5
	1776	883	31	802	418	407	825	22	132	39	7
	1777	872	37	835	452	395	847	1 had 3 12	145	35	7
	1778	961	34	927	476	460	936	9	127	39	10
	1779	1064	53	1011	550	476	1026	15	146	59	8
	1780	967	48	919	499	441	940	21	115	41	5
	1781	1079	52	1027	598	447	1045	18	121	38	6
	1782	1021	31	990	549	458	1007	17	127	57	6
	1783	1230	63	1167	632	553	1185	17	91	72	15
	1784	1317	57	1260	642	640	1282	1 had 3 23	76	68	11
Totals		20625	839	19786	10647	9470	20117	331	3111	1006	229

Proportion of males and females born, about *nine* males to *eight* females.

children dying under *sixteen* days old, as *one* to about *six and a half*.

children still-born, as *one* to about *twenty*.

women having twins, as *one* to about *sixty*.

women dying in child-bed, as *one* to about *eighty seven*.

Extracts from the Registry kept at the Lying-in Hospital, Dublin, from the Year 1757 to 1784.

Uniparous.

Women. Delivered in Hospital.	Dead.	Children. Sex. M.	F.	Dead. M.	F.	Still-born. M.	F.
19455	214	10305	9150	1656	1247	602	351
		9150		1247		351	
		19455		2903		953	
				953			

Total 3856 dead and still-born.

Inferences.

1. Proportion of males to females born nearly as - 17 to 15
2. ——— children dying under 16 days - 1 to $6\frac{2}{3}$
3. ——— children still-born - - 1 to $20\frac{2}{5}$
4. ——— males dying to females - - 4 to 3
5. ——— —— still-born to ditto - - 12 to 7
6. ——— still-born and dead of each sex to the whole 1 to 5
7. ——— women dying in child-bed - - 1 to 92

Multiparous, Twins, Triplets, &c.

Women. Delivered in Hospital.	Dead.	Children. Sex. M.	F.	Dead. M.	F.	Still born. M.	F.
331	15	342	320	116	91	29	20
		320		91		20	
		662		207		49	
				49			

Total 256 dead and still-born.

Inferences.

8. Proportion of male twins to females born - - 17 to 16
9. ——— twins dying under 16 days - - 1 to $3\frac{1}{5}$
10. ——— twins still-born - - - 1 to $13\frac{1}{2}$
11. ——— male twins dying to females - - 5 to 4
12. ——— —— —— still-born to ditto - 3 to 2
13. ——— still-born and dead of each sex to the whole 1 to $2\frac{3}{5}$
14. ——— women dying - - - 1 to 22

Totals of dead and still-born.

Males.	Females.
1656	1247
602	351
2258	1598

Born in hospital	10305	9150
Dead and still-born	2258	1598
Sent out living	8047	7552
	7552	
Balance - -	495 in favour of the male sex.	

Totals of dead and still-born, whether uniparous or multiparous.

Males.	Females.
1656	1247
116	91
602	351
29	20
2403	1709
Born 10647	9470
2403	1709
8244	7761
7761	

Totals of twins, &c., dead and still-born.

Males.	Females.
116	91
29	20
145	111

Born - -	342	320
Dead and still-born	145	111
Sent out living -	197	209
		197
Balance in favour of the female sex		12

Of 20117 children born, at the end of a fortnight, there is only a balance of 483 in favour of the male sex, although originally 1177; greater loss of males 694.