

The arrow-heads may be divided according to their shape into three classes.

I. Almond shaped,  $1\frac{1}{2}$  inches long,  $\frac{7}{8}$  inch broad, and  $\frac{1}{4}$  inch thick. The whole circumference sharp and serrated.

II. Triangular,  $2\frac{1}{8}$  inches long,  $1\frac{1}{8}$  inch broad at the base, and  $\frac{1}{4}$  inch thick. Base sharp and serrated like the sides. The angles at the base project slightly beyond the level of the centre, so as to make this edge slightly crescentic.

III. In this class a process extends backwards from the centre of the base. The angles also at the base extend slightly backwards. Size various; the largest presented is 3 inches long,  $1\frac{5}{8}$  inch broad, and  $\frac{1}{2}$  inch thick.

The first class resembles in general characters the implements found in the drift known as "langues de chats." The second class, besides making a good arrow-head, would make a good, useful hatchet, fastened by its apex at right angles into the end of a staff. This instrument is very carefully made, and must have required a considerable amount of dexterity in its formation, being unusually thin for its size. The process extending from the base of Class III. would enable the head to be more firmly fastened to the shaft. The projecting posterior angles would prevent the arrow being withdrawn after piercing the body. Most of the heads of this class are slightly curved, probably from the conchoidal fracture of the flint. One of them possesses a remarkable double twist. Thinking that the head was intentionally made in this form to produce rotation during the passage of the arrow through the air; I formed an arrow with a head similar to this, and found that the curve, though slight, was sufficient to cause rotation during its flight. This movement did not occur when the head was straightened.

It is interesting to compare these implements, made by a tribe so recently extinct, with those obtained from the drift of France and England. Though in some respects they are superior to the latter, their general character is the same. Like the drift implements, they are rough hewn, and exhibit no signs of friction. The makers of them may therefore be considered to have been much on a par with the inhabitants of Europe during the early and middle portions of the "Stone age."

*On the Vitality of the Black Race, or the Coloured People in the United States, according to the Census.* By Count OSCAR REICHENBACH.

STATISTICS reveal to us mistakes and exaggerations on both sides of the Negro question.

The increase of population within the United States has been—

	Whites.	Coloured.
From 1790—1800	.... 35	.... 32·23 per cent.
1810	.... 34	.... 37·38
1820	.... 34·3	.... 28·38
1830	.... 34·5	.... 31·44
1840	.... 34	.... 23·41
1850	.... 37	.... 26·62
1860	.... 40·4	.... 21·90

Increase of whites in the Free States from 1850-60....	42·7 per cent.
"          in the Slave States          "      ....	35·7      "

Texas first figured in 1850 with 58,558 coloured, originating from the United States, but of whom part had been imported before 1840. If we judge from the increase in newly settled parts, the number exported from the United States before 1840, amounted to 1 per cent. of the coloured in the United States in 1830. The real increase within the States was, therefore, from 1830 to 1840, 24·41 per cent. and the increase for 1850 only 26·13.

In the two first decennia, the blacks were increased by the importation of slaves and the acquisition of Louisiana. The territories obtained with the latter, appear for the first time in the census of 1810 with 45,863 coloured, or with 4·3 per cent. of the coloured in the United States in 1800. Of these 4·3 per cent., probably 123 per cent., originated from the United States as imported since the acquisition; the real increase by the acquisition amounted, therefore, to only 2 per cent. The black population had then increased, between 1800 and 1808, by importation of slaves, 3 per cent. more than between 1790 and 1800, or, taking into account the natural decrease in the increase of the blacks at that period, 8 per cent.

Florida was for the first time counted in 1830 with 16,343 coloured, or 0·9 per cent. of the coloured in 1830. In this case Negroes had been brought from the States since 1820, and even earlier; it will be therefore, sufficient to put the natural increase within the United States for 1833 with 31·2 per cent.

The natural increase per cent., including importation from Africa, therefore, is 1790-1800, 32·23; 1810, 35·23; 1820, 28·58; 1830, 31·2; 1840, 24·41; 1850, 26·13; 1860, 21·90. Probabilities without regard to the effects of war or of complete emancipation: 1870, 22·1; 1880, 19·4 per cent.

Neither the Census bureau nor writers on this subject could see a satisfactory reason for the fluctuation observable. I explained them in a manner to which Mr. Kennedy, the superintendent of the Census bureau, assents.

Before the close of the slave trade in 1808, speculation increased the importation of slaves to 8 per cent. of the coloured people within the States, over and above the usual per centage of importation. The imported were mostly adults in full vigour—they soon produced a generation. As the black race is of early virility, this generation became prolific in the decennium after the next, and in this way an alternation of increase continued. But gradually, and as the increase of the blacks generally declines, the differences wear off.

The war will most likely diminish the increase of the blacks. If peace is restored, and if liberty and immigration should return, the whole country will become more or less settled and occupied till 1880, and whilst immigration will still augment the natural increase of the whites, the Negroes will only increase in a rapidly decreasing ratio.

For the general result is, that the increase of the whites, inclusive of immigration, has had an upward, and the increase of the blacks without slave trade a downward, tendency. In 1850, the proportion of blacks to whites was 15·69 to 84·31, in 1860 it is only 13·69 to 86·31.

In the Slave States the proportions were :—

	Whites.	Blacks.
1800	64·8	35·2
1810	63·3	36·2
1820	63·13	36·87
1830	62·60	37·40
1840	63·41	36·39
1850	64·6	35·4
1860	66·7	32·3

The ratio of the blacks increased in the South till 1830 : by importation of slaves and by the acquisition of Louisiana and Florida : by a greater natural increase, and by a relative surplus of white emigration from South to North over emigration from the North and other parts to the South. After 1830 the proportions change by the decreasing fecundity of the blacks, and because, with the development of steam navigation and of railroads, and with some manufacturing industry in their train, commences a greater immigration into the South.

Excepting from the Slave States : Maryland, Delaware, Missouri, and New Mexico, (the latter possessing no slaves), the blacks increased, from 1850 to 1860, 22·6 per cent., and the whites, 29·9. In the excepted States the whites increased 63·6, the blacks, 12·3 per cent. In Missouri alone, the whites increased from 592,400 to 1,058,332, or 75·9 per cent., and the blacks only 30 per cent. ; in the other named parts the blacks increased 3·9, and the slaves amongst them decreased 4·3 per cent., or fell from 96,343 to 92,128.

*Increase of the Inhabitants of the Slave States from 1850-60.*

	Whites.	Coloured.	Proportion of whites&coloured	Absolute increase, coloured.
Maryland, Delaware, and Dis.				
Columbia	20·3	3·9	1 : 1·14	7,874
Virginia	17·00	4	1 : 0·23	21,740
Kentucky	20·76	6·9	1 : 0·33	15,175
North Carolina	14·12	14·3	1 : 1	45,176
Tennessee	9·24	13·8	1 : 1·49	32,238
South Carolina	6·13	4·4	1 : 0·71	17,276
Georgia	13·42	21·3	1 : 1·54	81,978
Florida	64·70	36	1 : 0·84	22,460
Alabama	23·43	38·3	1 : 1·3	94,667
Missouri	79·64	31	1 : 0·39	28,469
Mississippi	19·68	41	1 : 2·1	126,399
Louisiana	39·98	34	1 : 0·85	88,920
Arkansas	99·88	132	1 : 1·3	63,533
Texas	173·31	209	1 : 1·2	122,270
New Mexico	34·73	—	1 : 0	—

*Proportions of Whites and Coloured.*

In Louisiana in 1850..	49·34 to 50·66	in 1860..	50·5 to 49·3
In Arkansas	77·6 to 22·3	„	73·3 to 23·7
In Texas	72·4 to 27·8	„	70 to 30

The more the States are situated north-east and north, the smaller is the absolute and proportional increase of the blacks. In Missouri the increase of 30 per cent. exceeds the average, but it is absolutely small, only 28,469.

The absolute and proportional increase is next smallest at the south-east; even in Florida the proportional increase of whites exceeds that of the coloured. Georgia alone shows an exception in the proportional increase; but its south-western part has been only lately become more open for cultivation, and the increase does not exceed the average. In Alabama, further west, the surplus in the proportional increase is only 1·1 to 1 of whites; the absolute increase of the coloured is, however, greater than in Georgia; for the per centage of the whole population is for 1860, in Georgia, 59·9 whites to 41·1 coloured, and in Alabama, 54·7 whites to 45·3 coloured.

The further we go south-west, the greater we find the proportional increase of coloured. In Mississippi, Arkansas, and Texas, along the Mississippi with its tributaries and bayous, and along the Gulf, we see the slave-owners occupying the fertile lands. After the pioneer comes the slaveowner—the capitalist with his human property.

In Louisiana, however, the whites increased 39·48, the coloured only 34 per cent. In this older settlement, the coloured already exceeded the whites, as 50·66 to 49·34. Or like, as in South Carolina, they had attained that maximum where the opposite movement begins the proportion became 50·8 whites to 49 coloured. A particular cause effected here rapidly, what in South Carolina, with the most illiberal of all institutions, with a small general increase, and without the commanding position at the mouth of the principal river of the country, approaches slowly; the City of New Orleans, a large commercial centre, gained alone 52,300 people, or 43,000 more than the increase of whites over coloured. There remain only two States, where the coloured exceed the whites in numbers, South Carolina and Mississippi.

Diseases, in consequence of a transport from northern to southern, from cultivated to new parts, have probably less effect on the coloured than on the white man. The Negro is prolific in thirty settled States, discipline preserves him against many dissipations, often against a close contact with the whites, and forces him to a healthy and very rarely over arduous agricultural labour. But when the population has reached a certain density, and the Negro is brought into close contact with the vices and virtues of civilisation, his increase soon stays behind that of the whites, even in the southern latitudes of the United States, where the climate is still far more adapted to the whites than to the coloured; the inferior organisation makes room for the superior. As the Indian is killed by the approach of civilisation, to which he resists in vain, so the black man perishes by that culture to which he serves as a humble instrument. To those who doubt the justice of this view, I observe, that in the climate and society of the States, liberty is still more unfavourable to the increase of coloured than slavery. The free coloured population of the Union increased :

1790—1800	....	82.28	per cent.
1810	....	72	"
1820	....	25.23	"
1830	....	36.87	"
1840	....	36.57	"
1850	....	12.28	"
1860	....	12.3	"

The great numbers of the first decennia are the result of the gradual emancipation in the Northern States, which affects the numbers till 1830. From 1850-60, the increase of the free coloured descended as low as 12.3 per cent., or 53,547.

*The Ratio of the Free Coloured from 1850-60 is*

	Decrease per cent.	Increase.	Decrease in number.	Increase.
Maine	2.14	—	29	
Vermont	1.25	—	9	
New Hampshire	5	—	26	
Massachusetts	—	5.93	—	538
Connecticut	—	12.14	—	934
Rhode Island	—	7.68	—	240
New York	0.13	—	64	
New Jersey	—	6.33	—	1,508
Pennsylvania	—	6.01	—	3,223
Ohio	—	41.12	—	11,367
Michigan	—	163.22	—	4,261
Indiana	—	1.4	—	168
Illinois	—	40.32	—	2,151
Wisconsin	—	3.44	—	536
Iowa	—	231.53	—	771
Kansas	—	—	—	625
Minnesota	—	—	—	239
California	—	310.77	—	2,904
Delaware	—	9.72	—	1,090
Maryland	—	12.35	—	9,020
District of Columbia	—	10.66	—	1,061
Virginia	—	6.88	—	3,456
Missouri	—	36.44	—	965
Kentucky	—	6.72	—	573
North Carolina	—	10.92	—	3,000
South Carolina	—	10.63	—	930
Tennessee	—	13.67	—	850
Georgia	—	19.41	—	568
Florida	—	—	—	
Alabama	—	19	—	423
Louisiana	—	7	—	1,176
Mississippi	16.88	—	157	
Arkansas	81.25	—	521	
Texas	10.58	—	40	

In some Southern States the free coloured had to fly before oppressive laws. In Georgia and Alabama their increase exceeded the average, in consequence of manumissions. Immigration has increased the free coloured at the north; yet here, too, the increase only amounts to 28,140, or to 14.5 per cent. In the northernmost States, the few blacks have decreased; in the State of New York, too, they have

decreased: they flock to the metropolis, and die like the insect that flies towards the fire. The gold-fields have attracted a few thousands. Two States, Ohio and Michigan, are remarkable, the increase amounts to one-third of that within the whole Union. Emigrants from the east and from the south crowded, together with manumitted and fugitive slaves, in these western middle states because other north-western states refused to admit them.

But the natural increase of the free coloured does not amount to 12·3 per cent. in 10 years; for the number of manumitted and fugitives was in the years

	1850.		1860.	
	Manumitted.	Fugitives.	Manumitted.	Fugitives.
Alabama . . . . .	16	29	101	36
Arkansas . . . . .	1	21	41	28
Delaware . . . . .	277	26	12	12
Florida . . . . .	22	18	17	11
Georgia . . . . .	19	89	160	23
Kentucky . . . . .	132	96	176	119
Louisiana . . . . .	139	90	517	46
Maryland . . . . .	493	279	1,017	113
Mississippi . . . . .	6	41	182	68
Missouri . . . . .	30	60	89	99
North Carolina . . . . .	2	64	238	61
South Carolina . . . . .	2	16	12	23
Tennessee . . . . .	45	60	174	29
Texas . . . . .	5	29	37	16
Virginia . . . . .	218	83	277	177
District of Columbia . . . . .	4	—	—	—
	1,467	1,011	3,078	803

Manumissions have been, however, in reality more numerous, for masters frequently took slaves north and set them free. But, adhering to the above data, the number of manumitted from 1850-60 has been 22,720, and of fugitives, 9,040: together, 31,790.

The whole number of emigrants to Liberia, amounted, from 1820-30, to 9302, of whom 3676 were born free; besides these, some went to the West Indies, and to British America. The whole emigration for 1850-60 did not amount to more than 6,000, or the free coloured were augmented by at least 25,790 manumitted and fugitives; there remain, therefore, at the utmost, 19,830, or 4·7 per cent. as the natural increase of the free coloured within the Union.

The slaves increased 23·23, or five times as much. That the somewhat greater portion of the free coloured live in the Northern States, contributed but little to this disparity.

With liberty, therefore, declines, not only the political, but also the numerical, the social and economical importance of the blacks. It remains, however, not less true, that like white men, the coloured would work and produce more when they were free, after they were

thrown on their own resources, were stirred by the possibility of acquiring property, and had become gradually accustomed to liberty. Their increase is restrained by physiological causes, not compressed in the narrow theory of Malthus; education, schools and political rights, add very little to the vitality of the coloured race in the society and in the climate of the States.

The mulattoes amounted in 1850 to 11·2 per cent.; comparative numbers in this direction are not yet known: we have, therefore, no positive proofs of their greater disability for propagation; but there are certainly more mulattoes amongst the free coloured than amongst the slaves. After emancipation, the now inconsiderable instinct of emigration would increase, relations and friends who preceded would, without hindrance, draw their kindred after them.

The deportation of coloured criminals to some particular region of Africa, I also consider commendable.

In conjunction with these artificial causes, the increase of the coloured would soon become very small; principally if a gradual and a conciliatory emancipation were once effected.

The following data, from the Preliminary Census Report for 1860, are of interest in respect to the increase of the free coloured: "These comparisons imply an excessive mortality amongst the free coloured, which is particularly evident in the large cities." Thus, in Boston, during the five years ending with 1859, the city registrar observes: "The number of coloured births was one less than the number of marriages, and the deaths exceeded the births in the proportion of nearly two to one." In Providence, where a very correct registry has been in operation, under the superintendence of Dr. Snow, the deaths are one in twenty-four of the coloured, and in Philadelphia, during the last six months of the census year, the new city registration gives 148 births against 306 deaths among the free coloured, Taking town and country together, however, the results are more favourable. In the State Registries of Rhode Island and Connecticut, where the distinctions of colour have been specified, the yearly deaths of the coloured and the mulattoes have generally, though not uniformly, exceeded the yearly births—a high rate of mortality, chiefly ascribed to consumption and other diseases of the respiratory system.

Some lessons can be learned from the numbers of manumitted and of fugitives. The number of the latter fell from 1011 in 1850 to 803 in 1860, whilst the slaves had increased 23 per cent. and a successful escape had become more certain by greater facilities of conveyance, and by public opinion at the north. We must therefrom infer, that the treatment of slaves had become more mild, notwithstanding the passing of oppressive laws in some States of the South. In the year 1860, manumissions amounted to 115 per cent. more than in 1850, whilst the slaves had increased only 23 per cent.

The statistics of the two most north-eastern States, fully confirm the existence of a tendency to emancipation, independent of coercive laws imposed by section on section, and the existence of moral and economical powers, working in opposition to the passions excited by political ambition and conflict. In the year 1790 Delaware had 3,090

free, to 6,153 slaves; in 1860 there were 19,829 free to 1,798 slaves. In Maryland the decrease of slaves begins with 1810, there being 39,730 free and 107,397 slaves, against 83,492 free, and 87,189 slaves in 1860. Virginia had once entered upon this movement of emancipation, from north-east north to south and south-west. But here the decrease of 1839 was still less the cause of manumissions than of a migration of slave-owners to the west. This migration was so considerable, that the whites increased till 1840 only 6·07, and the slaves only 4·04 per cent., whilst the free coloured increased 5·28 per cent. In 1850 a normal condition returned, the whites increased 20·77, the slaves only 5·21, the free coloured 8·98 emigrants from the north took the place of departing slave-owners. In 1850 the number of slave-owners amounted to 347,525; for 1860 it has not yet been computed, but having most likely increased less than 23·2 per cent. which is the increase of slaves, and the increase of whites being as high as 33 per cent. we conclude that many of the slave-owners sold out, and that a decreasing proportion of the population has a direct interest in the existence of slavery.

Without the intervention of political commotions, and without the possibility and development of a sectional policy, slavery would have taken a course to emancipation by States.

An orderly and peaceable emancipation would cause a decrease of coloured at the north; for the coloured at the north do not naturally increase, and there would not be any more emigrants, manumitted and fugitives augmenting them; on the contrary, some would emigrate to the South, where climate, economical conditions, and society are somewhat more congenial. In fifty years, hardly any coloured would be found in the present northern States, and over the whole extent of the country their numbers would probably not amount to more than 9,000,000, a number more likely to decrease than increase from that time forward; from causes still more powerful than those operating for the transmutation of people in Ireland.

The **PRESIDENT** said the paper which had been read was one which the author had compiled with great care, and contained facts and deductions of the very highest importance to those who took an interest in the future of the Negro race in America. One of the evils which had frequently been pointed out as incidental to the slave population of America was the great mortality amongst the children of the African race in Virginia. This, public writers had attempted to show, was peculiar to the Negroes in the Confederate States; but the present paper has clearly demonstrated that the mortality was far greater in the Federal States, where there was absolutely no increase at all, while the Negroes, when under the protection of a master, increased twenty per cent. It was satisfactory also to know that the numbers of escaped slaves were so largely decreasing, and not from increased severity of their masters so much as from an increased affection which the Negro feels to his protectors when treated with discretion. The utter unfitness of the Negro for freedom when in juxtaposition with the European was, no doubt, the chief cause of the rapid decrease of all the Negroes



north of Mason's and Dixon's line. We should, however, not forget that climate also had something to do with the matter. The 40 deg. of north latitude was, perhaps, higher than any Negro could exist in a normal condition. It was absurd to talk of Virginia as a breeding state, for that state was not nearly so well suited to the Negro constitution as the states further South. Everything would lead us to suppose that it would be better both for the Negro and for their masters that they should gradually be withdrawn from the Northern States and sent South, at least the surplus population. The European could work in some parts of Virginia, but further South the labour of the Negro was indispensable to the cultivation of the land.

Mr. ALFRED R. WALLACE said that we must not hurriedly assume that the cause of the non-increase of the Negro in the Federal States was due either to his unfitness for civilisation or from the effects of climate, as it might depend on the different relative numbers of the sexes, and he should be glad of further confirmation on this point.

Count OSCAR REICHENBACH said that he had not omitted to bear this in view, and that, as far as he had been able to discover, there was no difference in the proportion of the sexes between the Confederate and Federal States.

Mr. HUME GREENFIELD thought that there was a gradual migration of the Negro population taking place from east to west, and that Negro labour would be superseded by Europeans wherever it was possible for them to labour.

Count OSCAR REICHENBACH, in reply, said that it was impossible for him to submit all the proofs of his conclusions, but he thought they would be found in his paper. He thought that nature was gradually doing the work which the advocates for emancipation were trying to do. Where the white man can labour there will be no chance for the Negro. Should the Negroes become free, and be sent North, they would soon become entirely extinct.