

SOUTH AFRICA AND ITS FUTURE.

BY JOHN HAYS HAMMOND.

It may be said that the attention of the rest of the world has been attracted to South Africa, not less on account of its recent adversity, than by reason of its unparalleled prosperity.

The disasters of the rinderpest, the Kafir outbreak, the locust plague, and the political revolution have made the year 1896 memorable in the annals of South Africa. With undiminished vigor, however, it is believed that she now enters upon an auspicious era.

To Americans it is a country of especial interest, as its chief industry is to a large extent conducted by American engineers, the development of the most important gold-mining properties of the Rand and Rhodesia, and of the diamond mines at Kimberley being under their direction. Moreover, Americans have been greatly benefited by the extensive purchases of machinery by the South Africa companies, and by the good markets provided for other classes of American goods as well.

The term "South Africa" designates that part of Africa extending southward from the Zambesi River (latitude 17 degrees, south) to Cape L'Agulhas, the southernmost promontory of the continent (latitude 34 degrees, 40 minutes, south). It embraces German West Africa; the Portuguese territories under the administration of the Mozambique Company; Rhodesia, south of the Zambesi, under the administration of the British South Africa (Chartered) Company; the republics of the Transvaal and Orange Free State; the British Crown Colonies of the Cape, Natal, Zululand, and Basutoland, and the British Protectorates of Bechuanaland and Amatongaland. It somewhat exceeds one-third the size of the United States, exclusive of Alaska. Considerably over one-half of the country is composed of British

possessions. South Africa lies in the same zone as Brazil and Australia, and in the northern hemisphere has its latitudinal analogue in Mexico.

The coast line of South Africa is about 3,500 miles in length, and has remarkably few indentations. The harbors at present utilized are Walfish Bay, which is an enclave of Cape Colony in German Northwest Africa; Table Bay (Cape Town), Algoa Bay (Port Elizabeth), East London, Durban, Delagoa Bay, and Beira. Excepting Walfish Bay, these harbors are all connected by railway with the interior of the country. The total mileage of railways in South Africa is about 4,000, but construction is proceeding apace into the interior, and this total will be considerably increased within the next few years.

South Africa has a heterogeneous population of about five million, of which over six hundred and fifty thousand are whites, English and Dutch* preponderating.

In the Cape Colony, those of Dutch extraction slightly exceed those of English descent, and in the Orange Free State the Dutch considerably outnumber the English. In the South African Republic, Natal and Rhodesia, on the contrary those of English descent are numerically greater than any other nationality. The Dutch, it is true, have been the pioneers or *voortrekers* in many parts of the country; but their settlement has been made in many instances, at least, only possible through the assistance given by Great Britain in suppressing the revolution of the Kafirs, with whom the pioneers came into conflict. It is to the unique colonizing capacity of Great Britain that South Africa owes the important position that she to-day holds.

Of the native population the bulk belongs to the Bantu family, which occupies all of Central and South Africa, and forms the great reservoir from which the manual labor of South Africa is drawn. The members of this family are generally designated "Natives" or "Kafirs." The term Kafir is of Arabic origin, meaning infidel, and was indiscriminately applied by the Arabs to all non-Moslem people. The Kafirs are the negroes of South Africa, though they have characteristic differences from the negroes of the West Coast of Africa, whence came our American negroes. The Bantu tribes are not aborigines, having come

*Those of Holland descent are called Dutch, while those born in Holland are termed Hollanders.

from Northern Africa. It is a remarkably prolific race, the numbers of which are increasing with great rapidity. Of far less importance numerically are the Bushmen, the true autochthons, but now the social pariahs of the whole continent.

The interior of South Africa was originally sparsely populated by these pigmy Bushmen tribes, which have resisted all attempts at civilization, preserving their nomadic instincts, and still approximating to the lowest known species of humanity.

The Hottentots, another tribe, which had located in South Africa anterior to the advent of the whites, though possessing some resemblance to the Bushmen, have radical ethnological differences. These people have occupied chiefly portions of the Cape Colony, not far from the sea coast, but there has never been a well-defined geographical boundary between the Bushmen and the Hottentot, their habitat frequently overlapping. The Hottentots, though evincing more receptivity, have been but inconsiderably affected by the civilizing influence of their environment, and may with the Bushmen be set down as unimportant, and indeed rapidly vanishing, factors in South Africa's future.

In its physical geography, South Africa is exceedingly diversified. The interior of the country consists of high plateaux, culminating in the table-lands of the Transvaal (South African Republic), whence the ground falls away in gentle undulations northward to the Zambesi River.

The high plateaux, from three to six thousand feet in elevation above sea level are, for the most part, treeless, or at best contain but a sparse growth of timber, usually of a dwarfed character. From the plateaux the ground does not descend with uniformity seaward, but reaches the coast by a series of terraces or steps. The mountain ranges which trend parallel to the coast line, from which they are distant one to one hundred and fifty miles, are in reality the broken seaward edges or escarpment of the high interior table-land.

In its hydrography, South Africa is simple, the most important rivers of the country being the Zambesi, which forms its northern boundary, and empties into the Indian Ocean opposite Madagascar, one thousand miles north of Cape L'Agulhas; the Limpopo or Crocodile River, which forms the boundary between Rhodesia and the South African Republic (Transvaal), emptying likewise into the Indian Ocean; the Vaal River, a tributary of

the Orange River, forming the southern boundary between the Transvaal and the Orange Free State; and the Orange River, which is conterminous with the boundaries of the Orange Free State, the Cape Colony, and German Western Africa, emptying into the Atlantic Ocean.

With the exception of the Zambesi, which at certain favorable seasons admits vessels of light draught as far as Tete—a distance of about 240 miles from the coast—none of these rivers is navigable.

South Africa is singularly destitute of large inland lakes, in which respect it differs strikingly from Central Asia—eminently a country of great lakes, inferior in this respect only to the United States of America.

As may be inferred from its variety in altitude and latitude, South Africa has an unusually diversified climate. It may be said, however, that the isotherms of the country are determined more by reason of altitude than by latitude, the climate being, broadly speaking, warm and moist along the coast and dry and cool upon the high plateaux of the interior. Sunstroke is of but rare occurrence, and there are but few places in the country, and these, indeed, entirely confined to the northern coastal belt, where the heat is comparable to many parts of our Western America.

Within the northern coastal belt, and also in some parts of the low lying districts of the interior, malarial fever is endemic, being especially severe during the rainy season, but it is rarely of very malignant type. More or less cognate sickness is elsewhere prevalent, ascribable rather to the unhealthy conditions incidental to the development of new countries than to climatic causes. Upon the whole, it may be stated that the climate of the high lying plateaux is remarkably salubrious, and undoubtedly conducive to the physical development of a vigorous race. The therapeutic properties of the dry elevated region are recognized in the treatment of pulmonary complaints. In South Africa there are a rainy and a dry season; the northern and eastern portions having rain during the summer season (from October to April), while the rest of the year forms the dry and winter season. In the southwestern portions of South Africa, however, the seasons are reversed, the rain falling in the winter months from April to September, the months from January to

April being usually dry. In the desert regions the annual rainfall is from two to eight inches, while in the more favored portions of the country the precipitation is as much as forty inches. The rains are more or less torrential in character. Spring and autumn are not generally well defined, though in some parts of the country, the four seasons of our northern hemisphere can be more or less differentiated. Snow rarely falls except upon the mountain ranges, and there is no perpetual snow line.

In its landscape, the interior recalls our western plains, the country being undulating and having its scenic monotony relieved only by occasional table-shaped and conical mountains, but there are in the mountainous districts many most picturesque spots, though of very limited extent and not possessing the grandeur of Western America.

Many parts of the country are fairly well watered, but the proper development of its agricultural resources, speaking generally, necessitates the conservation of water and artificial irrigation. It should be stated, however, that upon the eastern coastal belt and the high lands of the Transvaal and Basutoland, the summer crop of mealies (maize), which constitutes the staple food of the native population, is treated without irrigation.

Corresponding with the variety of climatic features, we find great diversity in the agricultural and pastoral resources of the country. Tropical fruits, sugar cane, tea, etc., are grown abundantly upon the coast lands, while upon the elevated plateaux, and in certain portions of the Cape Colony as well, all northern cereals are extensively raised. The pastoral industry is one of importance; in fact, for many years prior to the inauguration of mining, the country subsisted practically upon the wool exported. Sheep, goats, cattle, horses, ostriches, etc., are extensively reared. One of the most serious disasters to the pastoral industry of South Africa is the rinderpest, at present epidemic in the northern portions of the country. There seems but little doubt that it will spread through the southern portion as well, and will decimate the cattle of all South Africa.

There is but little first-class timber in the country, the indigenous timber of the east coast being heavy and hard, and therefore, handicapped as it is by inaccessibility, not economically available. Upon the southeastern coast there are government plantations, but the supply is limited, and the quality inferior.

For many years to come, the lumber will continue to be imported, the source of supply at present being the western coast of North America and Australia.

While there is little doubt that with proper development of its agricultural and pastoral resources South Africa could be made practically self-supporting, the successful development of these industries depends, nevertheless, upon the creation of local markets through the stimulus given by mining operations.

Whatever may contribute to the extension of the commerce and trade of South Africa, the immediate future of the country is dependent primarily upon the development of its mineral resources. Probably no other event has so impressed this fact upon the minds of the people of the country at large as the dire straits to which they have been reduced by the rinderpest epidemic.

Indeed, upon two previous memorable occasions, South Africa has been saved from industrial disaster by the stimulus given to trade through the development of the diamond industry in the one instance, and the development of the gold industry in the other. The *Deus ex machina* to again save the country will be the expansion of the mineral industry.

With the exception of mining of gold, diamonds, and coal, there have been no considerable exploitations of its mineral resources. Coal fortunately exists in many parts of the country, and it has been estimated that the known coal fields represent an area of 56,000 square miles, which is equal in extent to the State of Iowa. There exist in some parts of the country large deposits of iron contiguous to the coal fields, but, as yet, the economic conditions have not favored the development of that industry. Lead, silver, cinnabar, tin, and other metals are also found in many parts of the country, but have not been remuneratively worked.

Among the mining countries of South Africa, the Transvaal is *facile princeps*, and is in all probability destined to maintain its paramount position; though, as is well known, South Africa is "a country of surprises," and it is possible, of course, though not probable, that within its great extent other equally important districts may be discovered.

The South African Republic (Transvaal) comprises an area of 119,000 square miles, somewhat in excess of the combined areas of our six New England States and the State of New York inclusive. From the value of its mineral resources, it is to-day un-

doubtedly the pivot commercially and politically of South Africa. Politically the Transvaal is under the nominal suzerainty of Great Britain, acknowledging Great Britain as the paramount power in South Africa, with the right to veto all foreign treaties which it proposes. It has no seaport, in which respect it is seriously handicapped, being hemmed in by the Portuguese territory and English colonies. The white population is about 160,000, of whom 80,000 are *Uitlanders* (unfranchised whites), an unusually large percentage being adult males. The negro (Kafir) population exceeds half a million.

Until the year 1868, gold mining was, for political reasons, proscribed within the boundaries of the South African Republic. Impelled by the increasing poverty of the state, President Pretorius succeeded in effecting a repeal of the laws against prospecting, and, indeed, offered rewards for the discovery of payable gold deposits. As the result of this beneficial legislation, prospecting led to the discovery of gold within a short time in various parts of the Transvaal. Various discoveries were made in Klein Letabab in 1869, and Murchison Range in 1870. Other gold fields were discovered and proclaimed during the next few years, but it was not until 1885 that the deposits of the Witwatersrand District were found. The proclamation of these fields led to the rush that always attends the discovery of gold deposits, and by the magic touch of gold what was hitherto practically a barren stretch of *veld* has been transformed into the scene of great industrial activity. The township of Johannesburg was marked off at the end of the year 1886. The first reduction works of any size were erected in 1887.

Coal was discovered near Johannesburg in December, 1887, and it is to the juxtaposition of coal areas that the success of the gold-mining industry of the country is to be ascribed. During the year 1887, 23,000 ounces of gold were exported from the Witwatersrand District.

The total output to the end of 1895 from the Witwatersrand District was 8,858,000 ounces, of a value of \$144,000,000. During this period the De Kaap, Klerksdorp, Heidelberg and Potchefstroom, Lydenburg and Zoutpansberg districts have contributed 909,000 ounces, having a value of \$14,700,000, making a grand total of 9,767,000 ounces of gold from the Transvaal, with a total value of \$158,750,000.

By far the most important mining district in the Transvaal is that of the Witwatersrand, or White Waters Range. This range forms the water-shed of the country, its altitude being from 4,200 feet to 6,000 feet above sea level. There are but few indigenous trees in the district, but forests of eucalyptus and acacias have been planted, and have developed with remarkable rapidity, the soil being very fertile. There are now numerous forests of these trees in the vicinity of Johannesburg.

The census taken in July, 1896, shows a population within an area of three miles from the centre of Johannesburg to be 50,000 whites and 42,000 Kafirs. The Asiatics and Malays number about 6,000. These figures do not, of course, include the great number of white men living in the vicinity of the mines, which are for the most part without the three-mile radius.

There are at present over 9,000 white employees at the mines, receiving wages amounting to annually over \$9,000,000, and 70,000 Kafirs, receiving in annual wages nearly \$12,500,000. There are, accordingly, about \$20,000,000 annually paid out to the employees upon the mining properties of the district. Added to this, a large sum, probably equal to \$3,000,000, is paid to others directly connected with the mining industry.

As will be seen, the present output is to a great extent absorbed by the payment of wages, but it must be observed that a large part of the present expenditure is in connection with the development of properties not yet upon a producing basis.

The climate of the Witwatersrand is exceedingly fine and exhilarating, though the mortality is great, having been during the past few months as much as fifty-eight per thousand. This is due to the inadequate supply and the bad quality of the drinking water, to defective sanitation, and to the appalling hygienic conditions generally prevalent.

In the Witwatersrand, and the neighboring districts of Heidelberg, Potchefstroom, and Klerksdorp, the gold occurs in a series of parallel beds of conglomerates known locally as "banket" reefs, so called on account of its similarity to the Dutch confection, "almond rock." These beds can be followed more or less continuously about forty-six miles to the east and west of Johannesburg.

The mineralization is remarkably extensive throughout the main reef series over a stretch of 46 miles, but gold by no means

exists continuously in payable quantities over that extent, the pay-ore being found in irregular-shaped zones (patches), less frequently occurring, however, in well-defined pay-shoots similar to those characteristic of quartz veins.

Geological evidence strongly indicates the permanency of these deposits to a depth far beyond the zone of feasible mining operations.

Actual mining developments upon the deep level areas, supplemented in turn by the results of deep borehole explorations, confirm the theories advanced by the geologists and justify the predictions that the life of the Witwatersrand District, from a mining point of view, is a long one; how long, though, it is impossible to accurately predict, having at present the indeterminate factors of the possible depth to which mining operations can be prosecuted, and of the rate of future annual exploitation.

To speak of the illimitable ore deposits is, of course, hyperbole, but it will certainly take three decades, perhaps more, to exhaust the deposits of the central section to the depth to which mining operations are now considered practicable. The inevitable reduction of costs of future mining and the discovery of other payable deposits would undoubtedly tend to increase the longevity of the district. On the other hand, it is obvious that, if the developments of the lower areas should proceed more or less concurrently with, and not as the sequel of, the exploitations of the upper horizons, the life of the district will be correspondingly shortened.

It has been computed by well-known engineers that the central section of the Witwatersrand District, embracing an extent of $11\frac{1}{2}$ miles along the course of the reef, should produce up to a vertical depth of 5,000 feet over \$2,000,000,000; the estimate of Mr. Hamilton Smith for this section of the Rand up to a vertical depth of 3,000 feet, \$1,625,000,000, and that of Bergrath Schmeisser is somewhat in excess of Mr. Smith's estimate.

The estimated yield of the 27 miles, including the $11\frac{1}{2}$ miles referred to, is, according to Messrs. Hatch and Chalmers, nearly \$3,000,000,000. The magnitude of this output of gold will be realized when compared with the entire output of the auriferous gravel and quartz veins of California up to the end of 1896, which may be roughly put at \$1,282,000,000; more than three-quarters of this amount having, as previously stated, come from the now

exhausted shallow gravel mines. The present value of the world's gold output is \$218,500,000, according to the *Engineering and Mining Journal* of January 2, 1897. The contribution of the Witwatersrand District will therefore be a very important augmentation.

The output from the Witwatersrand for 1896 is 2,276,000 ounces, having a value of about \$37,000,000. This represents about 16 per cent. of the annual output of the world, and comes from a radius of 25 miles from Johannesburg.

During the next few years, there will undoubtedly be an important progressive increase in the gold yield from the Witwatersrand District, and there is every reason to expect that within a few years the yield of gold will equal \$100,000,000 per annum.

To the north of the Transvaal lies the British South Africa Chartered Company's territory, known as Rhodesia, including Mashonaland, Matabeleland, and Northern Zambesia. In that region there are many miles of gold-bearing reefs, some of which are undoubtedly the scene of ancient mining operations. In fact, some archæologists are of the opinion that within this territory were situated the famous mines of Ophir. At all events, there remain to-day conclusive evidences of prehistoric mining in many parts of the country, and the magnitude of these operations is evidenced by the extensive ruins of ancient temples, dedicated to the worship of Baal, and which were undoubtedly connected with the mining operations carried on in the country at that time. Among the relics from the famous Zambesi temple, which is probably of Phœnician or Sabeian origin, were found many articles associated with gold mining, among which are ingots, crucibles, gold beads, etc. The ingot moulds are of a pattern identical with that used by the Phœnicians in their tin-mining operations in England.

During the past few years mining has been revived in Rhodesia, but owing to the inaccessibility of the country, to the recent native outbreak, to the rinderpest, which has destroyed the means of transport, and to other obstacles, no definite results have as yet been obtained. The advent of the two lines of railway at present being energetically pushed on, the one from Cape Town northward into the western portion of the country, the other from the port of Beira into the eastern portion of the country, will facilitate mining developments, the result of which, it is be-

lieved, will be the discovery and development of payable mines. This would, in turn, stimulate the development of the other resources of the country, with the result that Rhodesia would eventually become the home of an important white population.

The topographical features of the country are such as to preclude the existence of any auriferous alluvians or placer deposits of importance; consequently Rhodesia will not be what is known among miners as "a poor man's country." Nevertheless, Rhodesia will undoubtedly attract American engineers, miners, and artisans, but they should secure definite employment before emigrating from America, if dependent upon employment for subsistence. To the "shrewd Yankee" of other vocations as well, the country would offer inducements, should its prosperity be established.

From a mining point of view Cape Colony is of chief importance in possessing the most extensive diamond mines in the world. The first diamonds were discovered in 1865, in territory which at that time belonged to the Orange Free State, but which was subsequently acquired through purchase, and incorporated in the Cape Colony. There were no extensive diamond workings, however, until the discovery of the Kimberley District in 1870.

Kimberley is situated in the northern part of Cape Colony, being connected with Cape Town by rail, a distance of 647 miles. There have been produced upwards of twelve tons of diamonds, representing a value of \$100,000,000. The present annual rate of production is about two and a half million carats, having a value of \$30,000,000. The magnitude of the mining operations carried on in Kimberley will be realized when it is stated that there are upwards of three thousand white men and ten thousand natives employed in the Kimberley District, and that about \$8,000,000 are expended annually for wages, material, etc.

Copper ore is also being mined in the Cape Colony, the present annual export being about 30,000 tons of ore, containing approximately 8,000 tons of copper. This industry is also said to be capable of future expansion. Gold mining has not yet been successfully prosecuted in the Cape, but there are undoubtedly numerous gold-bearing quartz veins, some of which it is believed may ultimately be profitably developed.

Situated on the northwestern portion of South Africa, and

bordering upon the Atlantic Ocean, is the territory of German West Africa. Relatively, this country is not of much importance, being for the most part arid, and consequently not capable of supporting an agricultural population. But little is as yet known of its mineral resources.

Bordering upon the Indian Ocean in the northeastern part of South Africa lies the Portuguese territory, the development of which is greatly impeded by the unhealthy character of its climate, and in hardly less degree also by the tsetse fly with which the country is everywhere infested. This scourge is a serious obstacle to the development of certain low lying portions of Rhodesia as well. It resembles in appearance the ordinary house fly. Its bite, while invariably fatal to domestic animals, is strangely enough innocuous to man and to the wild game as well, among which indeed it has its habitat.

The present importance of the Portuguese territories is undoubtedly due to its two harbors of Delagoa Bay and Beira. The former is the finest natural harbor upon the South African coast, and over this harbor England holds pre-emptive rights. Delagoa Bay is connected with Johannesburg by a railway, 396 miles in length. Beira, which is the natural port of entry to Rhodesia, is situated at the mouth of the Pungwe River, about 250 miles north of Delagoa Bay. From this port a railway is being constructed to Salisbury, the capital of Mashonaland, a distance of 389 miles. This road has already passed beyond the Fly-country, and should be completed to Salisbury in about two years.

The colony of Natal derives its name from the fact that it was discovered on Christmas Day, 1497, by the Portuguese navigator Vasco de Gama. The first European settlement was made by Englishmen at Durban in 1824. Natal has an area of 20,000 square miles. The population consists of some 450,000 Zulu Kafirs, 47,000 whites, and 41,000 Indian coolies. The country rises from the sea by a series of terraces. It has a tropical climate on the coast region, whence come the tropical products supplied to the Transvaal and the other interior countries of South Africa. In the uplands sheep are extensively reared. The mineral resources, with the exception of its coal fields, which are extensive, have been but little exploited.

To the west of Natal is the little independent Republic of

the Orange Free State. Its form of government is modelled after that of the United States of America. The white population number about 100,000, the majority of whom are Dutch, who, through the operation of the liberal laws of the land, live in perfect accord with their English confrères.

The Kafir population belong to the Basuto and Baralonga branch of the Bantu family, and number about 120,000. The country has an extensive table-land covering an area of nearly 70,000 square miles, and situated at an altitude from 4,000 to 6,000 feet above sea level. Its natural resources are chiefly pastoral and agricultural. Coal and other metals occur, but have not been remuneratively worked as yet.

On the southwestern border of the Orange Free State is the British Crown Colony of Basutoland, having an estimated area of about 10,000 square miles. From its mountainous character it is called the Switzerland of South Africa. It lies about 6,000 feet above sea level and is a succession of hills and valleys covered with grass, watered by innumerable streams and fountains.

Its capability as a wheat-producing country is unsurpassed, but the emigration of whites is not encouraged by the government, there being at present not more than 500 in the country. The Basutos number over 150,000, and, it is stated, have at least 15,000 well-armed soldiers, the presence and the warlike disposition of whom are a constant menace to the security of the neighboring States, and to the Orange Free State in particular.

To the north of Natal, bordering on the Indian Ocean, is Zululand, being about the same size, and containing nearly the same population, as Basutoland. Gold mining upon a small scale is carried on, and other metals exist, though, as yet, they have not been worked. The coastal belt is sparsely inhabited, owing to its unhealthy climate.

Amatongaland, to the north, is about half the size of Zululand. It is a low-lying coastal plain, rising not more than 500 feet above sea-level, and is not only unhealthy, but as far as yet explored, valueless.

The last of the political divisions for consideration, is the British Protectorate of Bechuanaland, which adjoins the Transvaal on the northeast. It is an immense territory, having an area of nearly 200,000 square miles, of which the northwestern portion is an uninhabitable waste called the Kalahari Desert.

In the eastern portions of the country cattle thrive, and in some parts, the soil being generally fertile, agriculture, though on a limited scale, is successfully carried on.

This brief survey will, it is hoped, enable our readers to form some conception of the present status of those industries and resources upon the successful development of which is predicated the future of South Africa. It will be seen that its immediate future, or its future within a measurable distance, is, as we have said, primarily dependent upon the development of the mineral resources of the country, and it has been shown that the established capabilities of the country in respect of its gold, diamonds, and coal deposits, at least, justify one in entertaining most sanguine expectations.

There is, moreover, no doubt that the country possesses the inherent capacity of political as well as commercial aggrandizement. In the review of its physical geography I have also indicated the limitations of the country; have shown that included within its boundaries are immense tracts of territory unsuitable to the habitation of Europeans, and, as a corollary, that the country will never be densely inhabited compared with Europe and the United States of America. This, of course, refers to its white population. I am of the opinion, also, that South Africa is not capable of an indefinite nor of a comprehensive expansion in the direction of manufacturing industries, being handicapped in this respect by the competition of countries possessing superior economic conditions. There are two other factors to be considered in forming an estimate of South Africa's future. I allude to the political and to the native labor problems. Notwithstanding the great number of unemployed natives in South Africa, there is a constant scarcity of labor, which at times makes itself most seriously felt, not only in the mining districts, but in all other portions of the country as well, where manual labor is required. This scarcity of labor exists in spite of, or I should say, to use a paradox, because of, the high wages paid, the rate of native wages in the mining districts being entirely disproportionate to the needs of the native; for, with the wages thus earned, after working only two or three years, the Kafir is enabled to purchase wives upon the fruit of whose labor he thenceforth lives in most congenial idleness.

Attempts have been made to educate and also to Christianize the Kafir, but generally speaking with lamentable failure. While the Kafir tribes are at times recalcitrant, the individual Kafirs, when outside the pale of tribal influence, are perfectly tractable. As has been stated, they overwhelmingly outnumber the white population, and it is highly probable that the safety of the whites may sooner or later necessitate the disruption of the native tribal organization. It must be confessed that there always exists a danger of future general uprising of the natives of South Africa, but it is a fortunate circumstance that the Kafirs are not capable of extended organized movement, nor of concerted action. The solution of the native problem demands the co-operation of all the South African States. It is believed that its best solution is by such legislation as will impose (by means of taxation, etc.) upon the native the necessity of working. Against such a policy, no doubt, the sentimentalists will protest; but when once South Africa is thoroughly united upon this policy, it will assert and maintain its indefeasible right to enact laws relating to a subject upon which, if not their very existence, at least their material welfare, depends. It cannot be denied that the *régime* of the white man has greatly ameliorated the condition of the Kafir, who, before his advent, was the victim of internecine wars, and of the operation of a despotic form of native government, possible only among barbaric people. The only alternative supply of labor would be the importation of indentured East Indians, which has been done, though not altogether successfully, in Natal. As far as the Transvaal is concerned, the laws of that country make this scheme impossible, and it is, moreover, by no means a desirable alternative.

A far more momentous problem is that relating to the politics of South Africa. I shall not, however, trench upon the domain of politics, being indeed under an obligation not to interfere with political matters affecting the South African Republic, further than to express the hope and the belief that a satisfactory solution of the racial problem, especially regarding the relations between the English and the Dutch, can be compassed by methods of statecraft.

While fully recognizing the fact that there are, unfortunately, discordant elements tending to widen the breach between the English and the Dutch, I know at the same time that there are

also most potent influences contributing to reconcile the racial differences, and to bring about that co-operation of all nationalities that is not only essential for the general prosperity of South Africa, but upon which depend the very existence of the individual States and their peoples.

The policy of isolation is incompatible with the general prosperity of the country, and, while there are inevitably diverging, and, indeed, clashing interests, the resultant of the various forces will be in the right direction. This view is based, not upon the expectation that altruistic principles will prevail, but rather upon the belief that those sentimental considerations, at present militating against South African progress, will be subordinated to the dictates of material welfare; that the interdependence of the several States will become universally recognised; that the present commercial barriers will be gradually removed; that customs unions will be formed, and, ultimately, while not wholly ceding their autonomy, the political confederation of the South African States will be established, thereby obliterating the boundaries which tend "to make enemies of nations, who had else as kindred drops mingled into one."

JOHN HAYS HAMMOND.

NOTES AND COMMENTS.

DOGS IN TOWN.

It is somewhat of an Irishism to say that fondness for dogs is a humane instinct. Nevertheless, there is a thread of nobleness in the character of that man, no matter how otherwise uncouth and degraded he may be, who has a genuine sentiment of regard for a dog. The dog is a true friend of man, and if individual specimens are vicious in temper, it is usually because they have been made so by surroundings and treatment. It is, therefore, with no antipathy for the dog, but with ready acknowledgment of his worth and usefulness that I would suggest that he is a nuisance as a denizen of the city.

Cities exist for the convenience and benefit of man, but they have grown in a haphazard way, retaining many rural features long after these have ceased to have any rational excuse for remaining. There are many persons still living who can remember when swine roamed about the streets of New York, and were the unkempt predecessors of Waring's "white angels." Dickens gives this picture of Broadway a half-century ago, and the same conditions existed less than four decades ago, to my own knowledge:

"Once more in Broadway! Two portly sows are trotting behind a carriage, and a select party of gentlemen hogs have just turned the corner. They are the city scavengers. They are never attended upon, or fed, or driven, or caught, but are thrown upon their own resources early in life, and become preternaturally knowing in consequence. Every pig knows where he lives better than any one could tell him. At this hour, just as evening is closing in, you will see them roaming towards bed by scores, eating their way to the last, perfect self-possession and self-reliance and immovable composure being their foremost attributes."

The hog has gone, but the dog lags superfluous, and even in his best estate is a care and a menace; often the unsuspected carrier of disease, as well as an evident source of filth. The streets would be much easier to keep clean if dogs could be excluded from them, as they are already from the parks. The cost, private and public, of cleaning up canine filth is unmistakably onerous, and it is, in fact, a chief source of street untidiness. Any one who has lived in a corner house can sympathize with that statement.

In addition to this, the dog in apartment-houses and wherever human habitation is dense is a cause of discomfort as well as of serious deterioration in the health of human dwellers therein. In one instance, a baby was rendered really ill by the dog in the house opposite, who at brief intervals through the day and late into the night would spring up to the open window of his apartment and express his canine enthusiasm in unmelodious