made with it under the ol of Major Martin Elliot's monograph on exceptional knowledge, ory and development of nment and administrares and products, its political and social con-

filled with facts and st value, and the picpared to say it is too ainly attractive. "The elf-respecting, and patmost South American ssing traveler it is just in Europe. It is very he charm which Chile ly travelers and most he ineffable delight of in practice, one of the s a liberty and freedom ns one is quite unaccusand the invigorating air much, but certainly the ves are largely responattraction which every England of the Pacific ems a superfluous, and write a book with any Florence and the Cities but, for all that, Mr. succeeded, and largely istinction of style linked of view. He has gathvolume the spoils of a ut he has never allowed hether in regard to ures, to grow tedious, We wander with him leries of Florence, and oks of Fiesole, Vallom-Lucca, Livorna, Pisa, he delight which comes ic places who have at gent, sympathetic, but loquacious a guide. The n charming sketches in ductions of photographs of an attractive and well th the kind of informaset forth, which the man

## Future

rtant desires to possess.

ut, "competition would o also would be private m of private right. Men heir duties; and no one a larger share of the of life than his neighers could easily bear a they would wish that s, while producing less, Happy in this thought, he general good with all tiveness, and the eager ed to them; and manous in contests with nauch is the Golden Age reamers may look forponsible conduct of affolly to ignore the imcling to human nature. ie Professor, "men even uch more unselfish serlly render; and the sumist is to discover how can be developed most account most wisely. competition in general, bound to retain a neuany particular manifessure that, human nature estraint of competition ti-social in its working

### of Man

economics is not only study of man, Profes-"man's character has everyday work and the ch he thereby procures r influence, unless it be leals, and the two great he world's history have the economic. . . . . more intense than econ-

action seldom extends life. For the business ns his livelihood generuring by far the greater which his mind is at its haracter is being formch he uses his faculties oughts and the feelings by his relations to his employers, or his emn the influence exerted by the amount of his if it is less, than that which it is earned.

ens Higher Faculties

is keenly alive to the th too many people live, ough to ask: "May we f that poverty is necesof his statements which ns and their effects: hich surround extreme

poverty," he says, "especially in densely crowded places, tend to deaden the higher faclicies. Those who have been called the Resihum of our large towns have little opportunfor friendship; they know nothing of the ecencies and the quiet and very little even of the unity of family life; and religion often fails to reach them.

"And in addition to the Residuum," he continues, "there are vast numbers of people both in town and country who are brought up with insufficient food, clothing, and house room, whose education is broken off early in order that they may go to work for exhausting toil with imperfectly nourished bodies, and have therefore no chance of developing their nigher mental faculties."

Their life is not necessarily unhealthy or unhappy. Rejoicing in their affections towards God and man, and perhaps even possessing some natural refinement of feeling, they may lead lives that are far less incomplete than those of many who have more material wealth. But for all that their poverty is a great and almost unmixed evil to them. Even when they are well, their weariness often amounts to pain, while their pleasures are iew; and when sickness comes the suffering caused by poverty increases tenfold. And though a contented spirit may go far towards reconciling them to these evils, there are others to which it ought not to reconcile them. Overworked and undertaught, weary and careworn, without power and without leisure, they have no chance of making the best of their mental faculties.

"Although, then, some of the evils which commonly go with poverty are not its necessary consequences; yet, broadly speaking, 'the destruction of the poor is their poverty,' and the study of the causes of poverty is the study of the causes of the degradation of a large part of mankind."

Some will rub their eyes to find the following fine passage in a book of political economy:--"Slavery was regarded by Aristotle as an ordinance of nature, and so probably was it by the slaves themselves in olden time. The dignity of man was proclaimed by the Christian religion; it has been asserted with increasing vehemence during the last hundred years; but it is only through the spread of education during quite recent times that we are beginning at last to feel the full import of the phrase.

'Now at last we are setting ourselves seriously to inquire whether it is necessary that there should be any so-called 'lower classes' at all; that is, whether there need be large numbers of people doomed from their birth to hard work in order to provide for others the requisites of a refined and cultured life, while they themselves are prevented by their povery and toil from having any share or part in

"The hope that poverty and ignorance may gradually be extinguished derives indeed much support from the steady progress of the working classes during the nineteenth century. The steam engine has relieved them of much exhausting and degrading toil; wages have risen; education has been improved and become more general . .

A great part of the artisans have ceased to belong to the 'lower classes' in the sense in which the term was originally used; and some of them already lead a more refined and noble life than did the majority of the upper classes even a century ago.

"This progress has done more than anynance of leading a cultured life, free from the pains of poverty and the stagnating influences of excessive mechanical toil; and this question is being pressed to the front by the growing earnestness of the age.

"The question cannot be fully answered by economic science; for the answer depends partly on the moral and political capabilities of human nature; and on these matters the economist has no special means of information; he must do as others do, and guess as best he can. But the answer depends in a great measure upon facts and inferences which are within the province of economics: and that it is which gives to economic studies their chief and their highest interest."

In these statements of the problems which lie before the social reformer we have no shirking of facts. The evils are admitted. But we have also ideals and hopes, and enough of stimulus to make us believe that black as Christmas, 1907, may be for many there lies in the heart of things balm for all ills so soon as we will with our hearts and both hands to use it.

One cannot refrain from adding that where the work of the economist ends the work of the pulpit begins. Professor Marshall says that "it is not the part of economics to appear to take a side in ethical controversy." But did ever the pulpit have a finer text from which to preach than that which Professor Marshall himself provides in these words?-"True happiness is not to be had without selfrespect, and that self-respect is to be had only on the condition of endeavoring so to live as to promote the progress of the human race."

We hope to deal with other aspects of Professor Marshall's stimulating book another time. But every social reformer and lover of his country should possess it for personal study.—Public Opinion.

One of the few advantages of increasing years lies in the consciousness that we shall one day be able to give advice instead of receiving it. No one would dare advise a man of fifty, unless it might be his wife, in which case he would not listen to her, while the person who would think of advising a woman of forty does not exist.-Ladies' Field.

# The Late Queen's Reign



EVIEWING Mr. Low's book, "The History of England during the Reign of Queen Victoria," the London Standard says:

Mr. Sidney Low's contribution to what is now recognized as the standard History of England covers the whole period of the late Queen's reign, nor is there, we believe, any living publicist who

could have dealt more successfully with the complicated and, in some respects, embarrassing theme. As we glance down the summary of his chapters we see that comparatively few are the subjects which can be classed among choses jugees. The questions which he must deal with are still under debate. Very soon after the accession of Victoria men had to ask themselves where began and ended the prerogative of a Constitutional Monarch, and before she had sat a decade upon the throne the country was torn with controversy over Free Trade and Protection. The men known as Chartists were advocating violent schemes of social and political upheaval, not altogether different trom those favored by the present Radical-Socialist Administration. Ireland was already an overpowering preoccupation. In 1854 the eternal Eastern question was raised in its most acute form, and in 1857 statesmen were confronted with the governance of India. Ten years later the controlling authority over pubic affairs had been placed in the hands of the middle class. At first they were not keen to assert their predominance, and their slow awakening affords an instructive parallel to the similar quiescence of the proletariat enfranchised in 1885. The great Conservative Revival under Disraeli was followed by a yet more signal collapse, and when the famous leader passed away there were not wanting shrewd judges who said—as they were saying two years ago-that the cause which he embodied had been finally extinguished. When we come to the rise of the Unionist party and its almost undisputed mastery over the United Kingdom, we are brought within the range current politics.

It was not an easy task for a writer whose energies for a quarter of a century have largely been devoted to the service of one party in the state to divest himself of all prepossessions and assume the mind of an impartial narrator. Mr. Sidney Low, however, has accomplished this moral feat, and we search in vain through

his pages for a sign of his personal opinions and individual preferences. If we would appreciate the quality of this self-detachment we have but to turn to the frankly partisan character of Mr. Herbert/ Paul's and Mr. Justin McCarthy's treatment of the same epoch. It is no disparagement of their valuable and interesting books to say that they set themselves to preach their own doctrines, just as Lord Macaulay and Sir George Trevelyan have made their records subordinate to their theories. Mr. Sidney Low has sunk himself in his subject, and will be repaid by the trust and confidence of his readers. As a chronicle of events, the only defeat in this work is one which he has himself pointed out-his summary becomes briefer as he draws nearer to present day. This, however, is a fault which will, no doubt, be remedied in a later edition, when it should be more practicable to write without passion of matters which are still agitating men's minds.

This severe self-repression is slightly relaxed when the author addresses himself to military themes. His account of the Russian war is given with plain eloquence, and, without any professional airs of condescension, he explains, what many people seem to forget, that the Crimea was not the only scene of conflict. But the best part of the book is, beyond doubt, the glowing visions of the Indian Mutiny. In less than forty pages (he would have liked to write 400) he presents a vivid and moving story of the most heroic epoch in which living Englishmen have taken part.

There is a certain group of superior persons who like to pour contempt on the Early Victorians. But Mr. Low makes it clear that nearly all the men of the reign who count in the world of letters had done their best work before 1865. Those who survived, like Tennyson, Carlyle, or Ruskin, and carried on their distinguished labors with unfailing power, accomplished nothing better than they had already produced. It is sufficient to say that before the date fixed by Mr. Low, Englishmen had been given "In Memoriam," "The French Revolution," and "Modern Painters." Mr. Meredith had published "Richard Feverel." and Mr. Swinburne "Atalanta in Calydon." The intellectual glory of the latter half of the period lies on the scientific side. Darwin's 'Origin of Species" appeared in 1859, and from that date, almost without a break, Englishmen have claimed the primacy in research

and speculation. Brilliant as has been the work of France and Germany, it does not compare either in volume or originality with the achievements of a race which is sometimes accused of stupidity. We advise no purchaser of Mr. Low's book to omit his skilled estimate of the persons who have been most conspicuous in the mental development of the present

In the narrative of intricate political manoeuvres Mr. Low displays no little cleverness in disentangling the essential from the irrelevant matter. There are passages, e.g., on Gladstone's resignation, where we seem to be getting rather less than the truth, as also in the case of Lord Rosebery's subsequent retirement from the Liberal leadership. Here, however, the author has evidently submitted to the restraint imposed by his scruple as to introducing disputable statements about living persons into a work intended to assume a permanent character. He will be judged, in the present edition, by his management of the first forty years of the reign. By that test he is amply vindicated. We are not aware of any book from which the same amount of trustworthy information and justified comment may be gleamed with equal facility. The tangled threads have been rearranged by an orderly mind, while the methodical style of the exposition, such as a university lecturer might eagerly emulate, is absolutely free from the vices of the chair. The book reads as though the writing had given no trouble to the author, so fluent is the style, so lucid the argument. In fact, however, it represents a vast amount of hard work and harder thinking. Mr. Low was fortunate to obtain the assistance and collaboration of an accomplished historical scholar in Mr. Lloyd Sanders, who is known for his close and detailed acquaintance with the development of English parties. For the benefit of students who wish to obtain a more minute understanding than can be gained from this volume of any special episode in the reign an admirable descriptive analysis of the best available authorities and documents has been appended. We are also given an ingeniously arranged map showing the growth of the British empire between 1837 and 1901.

Mr. Low has, we say without hesitation, porduced a history of the Victorian reign which is indispensable to every public or private library, and which is not likely to be superseded except by a revised edition of itself.

Rayleigh no doubt meant to hint something of this kind as gently as he could when he quoted the man who, on being asked what a scientific lecture was about, replied that the lecturer did not say. The manner is often as deplorable as the matter. The lecturer murmurs to his desk, or he hums and ha's and stammers and repeats himself. Then men of science wonder why the public do not take more interest, and why the advantages of a scientific education are not apparent to the man in the street.

"Men who really know a thing out and out, top and bottom, forwards and backwards, can explain that thing; and when a man cannot explain and link his subject with general conceptions he ought to understand that his own ideas are in need of clarifying.'

#### OPINIONS ABOUT PEOPLE

Miss Nightingale's Order of Merit

'King Edward had conferred a memorable distinction upon the venerable lady whose fame is a national possession, and who is still with us, an honor to the name of womanhood. In her eighty-eighth year, Miss Florence Nightingale has been appointed by His Majesty to the Order of Merit. She is the first of her sex in history to receive recognition of a kind so great and rare, or to be enrolled in the remarkable company to which she has been nominated," says the Daily Telegraph (Dec. Our contemporary, in a notably eloquent leader, recalls the worthy tribute paid by Lord Ellesmere in 1856 to "the Angel of Mercy" in the stricken field of the Crimea, and observes: "We recall these words because the breath of life is in them even today. They vibrate with the feeling of a time well-nigh two generations gone, and they convey, as no eloquence of any modern pen ever could, a sense of all that was associated in the mind of England at the close of the Crimean conflict with her who wears today, by the command of the King, under another reign and in another country, the Cross 'For Merit.'"

The Reminiscences of "Toby, M.P."

"Mr. Henry W. Lucy, 'Toby, M.P.,' of Punch, promises a first instalment of reminscences that extend over forty years, wherein we shall have his personal recollections of Disraeli and Gladstone, Lord Salisbury and Lord Rosebery, Mr. Balfour, Mr. Chamberlain, Mr. Morley, Lord Randolph Churchill, and many other prominent politicians. Some of Mr. Lucy's impressions have appeared in his volumes of 'Peeps of Parliament,' and if these may be taken as a sample, in bulk they should be delightful," says the Bookman.

Will Mr. Bernard Shaw Reply?

"Very entertaining should be the volume on Mr. George Bernard Shaw in the "Stars of the Stage" series, for it has been written by a person no less outspoken than Mr. G. K. Chesterton. It is to be hoped that, after a perusal of this monograph, Mr. Shaw may be induced by some enterprizing publisher to express his opinion of Mr. Chesterton," observes the Bookman. The same authority, referring to 'Irene Wycherley," the new play produced by Miss Lena Ashwell, who has never had a play on the stage before, treats murder and suicide, adultery and drunkenness and brute cruelty in a way that is psychologically and artistically satisfying. Also he proves himself an adept in technique and a master of dialogue.'

What Mr. Paderewski Enjoys Playing

"Two very favorite pieces of mine," writes Mr. Paderewski in a musical symposium in the Christmas Strand, "are Chopin's Ballade in A flat and the Fantasie in F minor." Herr Emil auer tells us that the piece he enjoys playing most is Chopin's B flat minor Sonata with the Funeral March. Mr. Leopold Godowsky finds it no easy matter to answer the question as to 'the piece I most enjoy playing," but finally selects the B flat minor Sonata of Chopin, Op. 50, knowing, however, "that were I to choose again a week or even a day hence my choice might fall on a different piece altogether." It is because of associations that Miss Marie Hall names Paganini's Concerto in D. M. Jean Gerardy's choice is "Variations Symphoniques," by Boelmann. "I think," writes Mr. Percy Grainger, "I must enjoy playing Busoni's splendid pianistic arrangement of Bach's big organ Prelude and Fugene in D major.'

Herr Kreisler's Favorite Pieces

Associations again endear Brahms' B flat Concerto to Mr. Richard Buhlg. Herr Fritz Kreisler has "no hesitation in saying that my favorite pieces, and those that I enjoy playing more than any others are the Concertos of Beethoven and Brahms." Mr. Mark Hambourg has two favorite pieces-the Fantasia of Schumann, Op. 17, and the B flat minor Sonata of Chopin with the Funeral March. Mr. Jan Hambourg's selection is the Chaconne of Bach, Wilhelmj's playing of which fired his boyish zeal; and Mr. Boris Hambourg's favorite piece is Tschaikowsky's "Variations sur un Theme Rococo." M. Vladimir de Pachmann favors the arrangements of Godowsky. Why Mr. Strachey Opposes Socialism

"Let me," writes Mr. J. S. Loe Strachey in the National Review, dealing with "The State and the Family," "ask my readers to make their effect on the family the touchstone by which proposals for Socialistic legislation shall be judged. For myself, let me say that I am no individualist anarchist, and in no way hostile to a state based and organized on sound principles. But I do not forget that the stronger the family the stronger the state in its best ger the family the stronger the state to others and the need for self-sacrifice in the family learns at the best school the lessons of patriotism. It is because I want to see a nation of strong, self-respecting and independent men and women, not because I am nervous as to the rights of property, that I desire that the family may be preserved from the assaults of the Socialists.

#### PHOTOGRAPHS OF THE CANALS OF MARS

The Century Magazine for December is an historical document of the first order, for it contains a wonderful series of photographs of Mars taken on the Andes in July last by Mr. E. C. Slipher, who was photographer to the expedition organized by Prof. Todd and Dr. Percival Lowell, the director of the Lowell Observatory, and an article by Prof. Lowell on the meaning of those photographs.

The photographs when developed "proved thing else to give practical interest to the question whether it is really impossible that canals and oases evidently there, but these sition to the idea that we now have proof of all should start in the world with a fair showed with a delicacy of delineation which life on Mars is not based on reason, but on spoke for the steadiness of the air through

> which they had been taken.' "The importance of these little round discs, doubt-killing bullets from the planet of war, is that they reveal to laymen and astronomers alike that markings exist on Mars which cannot be explained on any other supposition than that life able to fashion them is present there at this very moment," says Prof. Lowell. "For to an acute eye they are manifestly straight lines. Now, straight lines are not naural products on any such scale as to be visible from one body to another across forty millions of miles of intervening space. Undertaken with a view to their educational value in setting scepticism at rest, these photographs have proved the death of even more doubt than the operators thought possible.

"One thing he who scans these circles must understand, or he will miss the full measure of the wonder they contain. His brain must be open to them; not his eye alone. For what is before him is no meaningless articulation of black and white, but the portrait in its entity of another world, imprinted there by that world itself. Sharp set against the black of space this circlet of light displays to him an earth, comparable in grandeur and selfcontainment with that on which he dwells. Small to the sight, in the brain it takes on its true dimensions, and to the mind's eye becomes the globe it really is, which, could he find himself transported thither, would seem the essential sum and centre of the universe, as now to most men our own world comprises

all they know. "The trained observer will find in the markings in chiaroscuro representations of the really colored topography of that other world. Glistening snows around the poles are the white spots that catch his eye at top and bottom; blue-green areas of vegetation as large as Europe, the dark ones he see below; vast rose-ochre stretches of Saharan desert, the light regions that compose its greater portion. And then, at last, trained to looking, he will distinguish the threads that interlace them and bind them all into a communicated whole.

'These little lines are the 'canals' which

for their strange directness and yet stranger

they have to tell. For it wounds man's dignity to believe it. But to the camera no evasion of the fact avails. They are there, and the filme refuses to report them other than they are. They speak of life to him who ponders on their meaning, reviewing with open mind all the evidence they detail-life working to definite self-supporting end. And his mind must be dulled indeed who does not lose himself in contemplation of the wonder of the mental vision these little balls call up.

"That life is there is founded on no assumption, but on massed evidence that is concluhowever speciously cloaked. scientific objections have been met and shown untenable as to temperature, snow, etc., but human prejudice, as with the Copernican system or the origin of species, time alone can dispel.

### BRAKEMAN OR MURDERER

Dr. Huntingdon, rector of Grace church, in New York, has hit upon a striking way to impress the imagination with the extent of unpunished crime in the United States. He says he has heard it said that in this country it s safer to be a murderer than a brakeman.

The grotesqueness of placing murder on an equality with useful labor as an occupation, and of estimating calmly their relative safety, at once arrests the attention. Yet the matter is not so grotesque as at first appears. From a volume entitled "Social Progress, an International Year Book," the following statistics are gathered:

During the year 1904, out of 106,734 trainmen employed on the railroads of the United States, 3,632 were killed. During the same year, according to the same trustworthy book of reference, 8,482 murders and homicides were committed in this country, for which crimes 116 persons were executed. In other words, one brakeman in about thirty met his death in that year, and one murderer in about seventy-three. The brakeman's occupation, therefore, is about twice as dangerous as the murderer's.-Chicago Journal.

Synthetic camphor, the production of which has been a problem among chemists for many years, seems to be at last a commercial product, but the high price of turpentine oil may prevent it from coming quickly into use. At least four processes have been devised for making this product from pinene, which forms seventy per cent. of turpentine oil. By chemical treatment and oxidation, the pinene is given the chemical structure and chemical properties of the natural camphor, but with different reaction in polarized light and somewhat less fragrance. About ninety per cent. of the world's camphor is used for making articulation were for long denied existence, and celluloid, for which the synthetic material is even now find a world slow to credit the story claimed to be perfectly suitable.

#### WHERE SCIENTISTS FUMBLE AND POTTER.

"When a man is really master of his subect he can usually explain it in non-technical language. When the work is master of him, he cannot get away from the laboratory."

In these terms "X. Y. Z." explains, in the Times, the futility of many scientific lectures. He writes apropos of an incident at the Royal Society dinner on Nov. 30, when Lord Dunedin asked why, when he gives a billiard ball left-hand side it goes to the left, but when he gives left-hand side to his curling-stone it goes to the right. "Lord Dunedin," writes "X. Y. Z," is a lawyer, and that is why he is suspected of playing off a sort of Royal joke upon the Royal Society. For it must be evident to a legal mind that the two things are not in pari materia. The ball does not go to the left until it strikes some elastic body, either another ball or the cushion. The curling stone does not strike any such body.

"When Lord Dunedin foozles a left-side shot and misses the object ball altogether his ball travels to the right. If he strikes another stone with a left-hand twist on his own, his stone will come off at a sharper angle than if there had been no twist. Prof. Tait might have put him to some confusion by explaining the matter so far, and somebody might have enlivened the proceedings on Saturday in the same way, without plunging head over ears into the mathematical explanation of twist in general-whether in a billiard ball, a golf ball, a curling stone, or a shell. But the wellmeant effort to infuse a little fun into the proceedings proved a failure.

"Now these things are a parable. Men of science complain that the public do not take sufficient interest in heir work. The public may with more reason complain that they do not take more pains to make their work interesting. There are few things more disagreeable to a journalist not ignorant of science than to listen to the majority of scientific lectures. There are perhaps as many men as could be counted on the fingers of one hand to whom it is really a pleasure to listen. As for the rest, it is distressing to observe what a mess they make of really good material, how little they understand how to make their points how they fumble and potter over the non-essential, how little they know about apt illustration, or about bringing what they have to say into any sort of vital connection with general knowledge and general interests; how, in short, they tumble their laboratory notes before the unfortunate audience and call them a lecture.

"The audience must presume that they know a great deal, but the audience have to know nearly as much in order to understand what they are driving at; and if it were not that many people lack the courage to confess that they do not understand, it is hard to see where the audiences would come from. Lord