

given a thin skin of silver, deposited by chemical means, the purpose being to throw back the light—the telescope belongs to the “reflecting” and not the “refracting” class—to the upper end of the tube. When finally finished and ready for mounting this giant mirror weighed 4,340 lbs.—nearly two tons!

Owing to the delicate and finely designed character of the electric wiring and control systems the giant instrument can be operated with the greatest ease. The modus operandi is as follows: On the observing floor an operator controls the quick motions and clamps of the telescope as well as the rotation of the dome itself from one of two switchboards set on either side of the south pier, according to



THE WAR'S GREATEST WORK.
—From the Providence Journal.

whichever is the more convenient to his hand. In this way the telescope can be set quickly and approximately to the tabular position of the desired object by the sidereal and declination setting circles. Then the observer, whether he be at the upper or lower end of the instrument, can clamp or unclamp the telescope, make the fine settings, and guide by the aid of push-buttons carried upon a small keyboard, similar to that of a typewriter, which he can carry round with him to attach to any convenient place.

The obvious site of the telescope of course was Ottawa, where the headquarters of the astronomical section are established, but the guiding spirit of the undertaking drew attention to the circumstance that the existing establishment did not necessarily constitute the most suitable location for this big gun of science. Indeed, there was scarcely a point in Eastern Canada, where it could be satisfactorily placed. The unsteadiness of the air, together with the wide fluctuations of temperature between noon and midnight, would militate against the utilization of the instrument to the utmost advantage. Adverse meteorological and climatic conditions would be certain to contribute to the bad definition of the star images, which would suffer further impairment from the distortion of the mirror through changes in temperature.

Forthwith an elaborate investigation of suitable sites in the Far West was carried out, and four possible situations—Medicine Hat, Banff, Penticton, and Victoria respectively—were presented. Closer examination of the problem speedily ruled out the two first-named, the issue finally being resolved into selection between the convenience of the resident staff, such as an adequate fresh water supply.

WRITING in Land and Water some weeks ago, M. Luboff, Editor of The Financier, paid a great tribute to Paul Milinkoff, Russia's new Foreign Minister. The most convincing part of the article is his quotations from Milinkoff's speech in the Duma delivered last November in denunciation of Sturmer, the pro-German who tried to sell his country for a separate peace. This withering and passionate denunciation was delivered in the presence of Sturmer himself:

Gentlemen,—We have all heard of Funeral Orations,

but have you noticed that, whatever their aim, these orations always leave the dead dead? What would you think, I wonder, of a man who sought, in such an oration, to bring about the resurrection of the dead? Mad? I agree, yet there are times when such an attempt is permissible. Gentlemen, I stand on this tribune with that mad desire upon me. Like a fire this desire has burnt into my soul. I want to deliver an oration which will resurrect the dead, because the mighty Russian Empire cannot afford to leave dead its most precious possession. The dead, over which I, together with most of the Russian people, weep tears of blood, must be dead no longer.

Do you not know that unless you act now, unless you use your utmost efforts, the name of Russia will stink in the nostrils of humanity? Even the most savage tribe in the world will turn away on the approach of a Russian, because Russia is about to betray the trust of her Allies. They are Allies of whom she should be proud—Allies to whom she ought to listen with respect and obedience. They are among the oldest civilizations, the oldest democracies in the world, and they are to be betrayed! Judas the traitor is among us! Judas has closed his bargain! I understand your turmoil; I read the terror in your eyes. Even the President's hand is quaking! He rings his bell nervously; but mark, even the bell revolts; instead of its shrill sound, you hear a muffled funeral note. No, it shall not silence me; its sound re-echoes in my soul and urges me to further effort. I have here, gentlemen, the evidence of Judas. Evidence in cold figures—the number of shekels, the pieces of silver for betrayal. A new sound comes out of the bell—the jingle of silver, the blood money! Why are we silent; yes, silence, our silence is golden to Sturmer and his colleagues. But for us, for generations to come, that silence is a crime; a terrible, bloody crime. All we shall have to leave our descendants, when honour is buried, is disgrace, a stain that no time will efface. Wake up, you sons of Russia, you who stand for the Russian people, and avert this greatest of all catastrophes. Rise up, dead honour, arise from your coffin and let us see thee live. Come, face thy murderer in his high place. Accuse him before this assembly, let thy voice thunder. Yes, I am aflame; but I am cold compared with the crime with which I charge Sturmer. I stand on this tribune only because you are honest and true men, and you will not tolerate these things when once you know them. You will bring honour to life again, and bring gratitude instead of contempt into the hearts of our children.

Berlin does not pay money for nothing. Sturmer had to earn it, and he did. He paved the way for revolution as the means to a separate Peace. Must not the great Russian people be told of this? Is it not better to remove the cause of their suffering? Gentlemen, this traitor, this German, must go. No matter what excuse be made for him, for the sake of our honour, and the trust of our Allies, Sturmer must go.

DID you ever reflect how little the conduct of this war has had to do with really great people?

How we have had no Napoleon, no Wellington, no Caesar, no all-conquering anybody to rise above the almost infernal organization of the war machinery? Do you remember how a few years ago we used to look on Lord Kitchener as though he were a superman and—

Well, the whole question is most alluringly set forth in the Fortnightly by Sidney Low, according to whom in spite of a number of alleged supermen the world over following the reconstruction of cabinets, or general staffs or higher commands, the greatest of all wars has so far thrown up no supremely great Personality. We have got rid of what Mr. Wells, with one of his irradiating flashes of insight and description, calls the effigy; the great, caracoling, threatening, overbearing figure that looms so large in the foreground of all the wars and conquests of the past. Always when you turn back to these things



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the interest centres dramatically round an individual. The Man has so overshadowed the Event that most often we have forgotten the latter and remember only the former. It is of Rameses or Sesostris, Cyrus, Alexander, Caesar, Attila, Charlemagne, Genghis Khan, Charles XII., Peter the Great we think rather than of the kingdoms they devoured, the empires they founded or destroyed, the hosts they led to the slaughter. History flattens out before many minds a rather dull, level expanse, like the plain of Thebes with the Colossi towering above it to catch the sunbeams. It is the big man who often gives his name to the epoch: the age of Augustus, the age of



WORKING FOR WILHELM.
—Kirby in the New York World.

Mohammed, the Napoleonic period, the Bismarckian era, and so forth.

But this marvellous stretch of time through which we are passing will not, it seems, be known as the Age of Anybody. We have no Effigy really worth a show-case in the historic museum, though several of the nations engaged have made some well-intentioned efforts to create one. We have felt somehow that we “want a hero,” like Byron when he started upon “Don Juan.” The research after this object of desire has not been conspicuously successful. The Germans do their best with Hindenburg; but it is surmised that the strategy and battle-schemes are really worked out by Ludendorff and other useful subordinates, and that Hindenburg himself may be only a clumsy wooden image, “made in Germany” to order and scale. In France there was at first some disposition to cast Joffre for the part; but that modest, methodical, painstaking, and unimaginative commander is not of the stuff whereof effigies are made, and he showed an absolute disinclination to appear in this role. Among ourselves a conscientious endeavour was made for a time to find what we wanted in Kitchener, the strong, silent man, the organizer of victory. But, alas! the Dardanelles Report is out; and whatever may be said of that inconvenient, and inconveniently timed, document, it must be acknowledged that it makes sad havoc with the Kitchener legend. Our Superman fades before our eyes, and leaves us instead with the likeness of a most patriotic, self-confident, hard-working, high-minded gentleman, overburdened by an unparalleled task.

We all know how the Germans have cooked up the superman idea. Where other nations played with the idea they have worked it to death.

But this war, says Sidney Low, has changed our orientation. Heroism has become so common that it has long ceased to be picturesque and theatrical, though it tugs at our heartstrings none the less on that account. We have discovered that the quite average, ordinary man can do deeds which would have seemed notable enough to fill half a canto of sounding verse, or half a chapter of reverberant prose, in the days of the effigy-hero. For him—it may be he will get a line in a bald telegram or a bit of ribbon and a metal cross. It is much more likely he will get nothing, and nobody but a comrade or two will know how he lived and died. He goes about all this work with an amazing modesty, calmness, and self-effacement, as though to suffer appalling torture, to be mangled, ripped open, maimed, blinded, killed, were just an incident in the day's doings.