

tion is also somewhat supported by the statement that, but for the rebellion of the Boers against British intervention in Transvaal affairs, Kruger would shortly have placed his country under the protection of Germany.

The stated wish of the Boers to capture or kill Mr. Rhodes is probably born of the belief that he has been scheming for a South African Anglo-Dutch confederation ever since the failure of the mad and disastrous raid of Dr. Jameson and his free companions. Altogether, guessing at British policy in South Africa is likely to be a favorite pastime of foreign correspondents until the conclusion of the present campaign enables the world to know what are the intentions of Messrs. Chamberlain and Rhodes.

#### THE HEAT OF THE INCANDESCENT ELECTRIC LAMP.

As prevention is better than cure, we should like again to caution our readers against the careless placing of electric lights amongst inflammable material. "The incandescent electric lamp is essentially a device which transforms electricity partly into light, but mostly into heat," says the London "Lancet." As is well known, the carbon filament of the lamp is a substance offering great resistance to the passage of the current, and the product of this resistance is light and heat. It may not, however, generally be known that the light produced is after all only a small percentage of the energy thus manifested—some five or six per cent. at the most. The heat evolved is, of course, not so dangerous as a flame of naked light, but it is a mistake to suppose, as many do, that it may be buried amongst inflammable goods with impunity. It has been found by experiment, that on immersing a 16-candle power lamp (100 volts' pressure) in half a pint of water, the water boils within an hour, and in proportionately less time when 32 candle power is substituted. If, again, the lamp be buried in cotton-wool, the wool soon begins to scorch and ultimately to burst into flame. In contact with an incandescent lamp celluloid fires in five minutes; and surely, therefore, there is every reason why shopkeepers, and especially those dealing in celluloid goods, should bear these things in mind. With necessary precaution, electric light is not more dangerous than gas; all that we want is to ensure the exercise of prudence and care.—"Caledonian Jottings."

#### PRACTICAL PATRIOTISM.

The following appeared in the Toronto "Globe" of the 13th inst.:-

"At a meeting of the directors of the Ontario Mutual Life Assurance Co. at Waterloo, yesterday, on motion of B. M. Britton, Q.C., M.P., seconded by Alfred Hoskin, Q.C., the following resolution was adopted: 'That this Company grant permission to any of its policy-holders to go to South Africa with the Canadian contingent, and that engaging in Her Majesty's

Service in the War against the Boers shall not vitiate the policy of any policy-holder of the Company.'"

We have no doubt all other companies will fall in line with the Ontario Mutual.

#### PRACTICAL ASPECTS OF THE BRITISH AND METRIC SYSTEMS OF WEIGHTS AND MEASURES.

Considerable attention is just now being given to the metric system of weights and measures, which is advocated as desirable to be established in Canada. The Toronto Board of Trade has endorsed this system, and the Minister of Inland Revenue has urged its adoption in an interesting and well-reasoned address at Winnipeg. This is one of those matters respecting which much can be said on both sides, and both aspects of the question call for thoughtful consideration before action is taken to change the existing system. Canada took one step towards the metric system of weights and measures, by adopting a decimal currency, which is based on the same principle. The case with which the new form of currency was established, by which pounds, shillings and pence were abolished as current money in the Dominion, is evidence, to some extent, that the metric system might be introduced without any serious difficulty so far as Canada is concerned; its effect, however, upon our outside trade is another matter.

The fundamental distinction between a metric system of weights and measures and those now generally in use in this country and the United Kingdom is this, the metric plan makes the number ten the common unit, and the existing plan is based upon eight as the common unit.

The metric system is based upon a scientific measurement of the earth's circumference, all measures and weights being derived from that as the supposed infallible standard. We say "supposed," because after the scientists of France in 1790-96 had fixed upon that as the basis, it was found by Sir William Herschel to be wrong by 4.008 feet. The claim, therefore, that the metric system has a scientific basis is not quite correct, as the metric is too short, in a scientific sense, by about the 200th part of an inch. On the other hand, our common weights and measures are based upon natural facts, the number 8 being the ruling factor. Thus by an Act of Henry VII the standard bushel is 8 gallons or 4 pecks of wheat, each gallon being 8 pounds, each pound 12 ounces, each ounce 20 pennyweights, each pennyweight 32 corns of wheat. The Imperial bushel was fixed by Act 5, George IV as holding 80 pounds of water. The quarter contains 8 bushels, or one-quarter of the so-called hundred-weight of 112 pounds. It will be noticed how 8 and its divisions and multiples run through all these tables of capacity, and it is very significant that the weight of 100 pounds was converted into 112 pounds, owing to its being divisible by 8 without leaving a fraction. We find the smaller measures following this rule. A quart is 8 gills, and the fourth of a gallon, whence its name. A pint is the eighth of a gallon. Thus we