

**PERPETUAL MOTION.**

A way has been found, by means of great cold and pressure, to produce a hitherto unknown liquid, apparently out of nothing, but really out of the air; in fact, it is air, only reduced to its fluid form, and if the process could be carried far enough it could no doubt be made solid, since all simple substances seem to pass in regular order through the three conditions, solid, liquid and gaseous, according as they are heated or cooled.

The value of this discovery is said to be that it furnishes a new motive power, which may take the place of steam and stop the consumption of coal and wood for fuel. It works thus:

There is one of the universal elements, as they used to be called, which passes from its solid state (ice) to its liquid state (water) at 32° above zero, and to its gaseous state (steam) at 212° above zero, and it is the expansion which takes place in the last-named transformation which does the world's business at present. As the normal temperature of water is 50° or so, it will be seen that all the results are obtained by the addition of 162 degrees of heat.

Now the other universal element in question, air, passes from its liquid to its gaseous state at 312° below zero, so that before it is restored to its normal temperature it must rise nearly 400 degrees. Therefore more than twice as much energy ought to be obtained by expanding liquid air as by expanding liquid water. This is the story in a nutshell.

The question of cost is naturally the first that occurs to one, and here it is that we are told a strange thing. It is said that the expansion of three gallons of liquid air in an ordinary engine will drive a machine that will make ten gallons of fresh liquid. In other words, a machine driven by this substance will not only consume nothing, but will accumulate a double store of its material as it goes along; doing away incidentally with boilers, chimneys, coal-rooms, cinder-piles, smoke and dirt, and apparently creating force without using anything up, since it merely uses the air about it for a few minutes and then restores it uninjured, to circulation.

It will be seen that this is neither more nor less than perpetual motion, and the conclusion of the ordinary mind is that it is therefore neither more nor less than an absurdity.

**RAILROAD ATTORNEYS.**

It is a very remarkable fact that the large railroad companies make drafts on the country towns for their legal talent.

George R. Peck, the general solicitor of the Chicago, Milwaukee & St. Paul railroad came from Topeka, Kansas. Mr. Chauncey M. Depew, who until recently has had charge of the legal department of the New York Central was

discovered at Peekskill. E. D. Kenna, the general solicitor of the Atchison, Topeka & Santa Fe company came from Springfield, Mo. Robert Mather, general solicitor of the Chicago, Rock Island & Pacific began life as a clerk in the master mechanic's office of the C. B. & Q. at Galesburg. The Chicago & Northwestern found the head of their law department, Mr. Bowers, in Winona, Minn. J. W. Blythe, the general solicitor of the C. B. & Q., lives in Burlington, Iowa, while Fred Lehman who looks after the litigation for the Wabash Company went to St. Louis from Des Moines, having formerly lived in Nebraska City.

Judge Kelly, of the Union Pacific, first became connected with the company at Lincoln, and Wm. Brown, of the Chicago & Alton, started from Jacksonville, Ill. J. J. Hagerman, of the M. K. & T., was from Keokuk.

These few instances of success among country lawyers and the disposition of large corporations to enter the rural districts for their legal talent ought to be very encouraging to the country bar.

**PROTECTION AND THE TRUSTS.**

A new menace to protective tariffs has arisen. Strange to say, it is the trusts and combinations which have been fostered by protection. A republican newspaper, and one of the staunchest supporters of President McKinley in the country—The Chicago Times-Herald—begins a double-leaded editorial with the statement: "The protective tariff must not protect trusts." In view of the fact that nearly every manufacturing industry in the country is organized into a trust, this is equivalent to saying that the protective tariff must be abolished.

Here is an excellent opportunity for the republican party to get rid of the incubus of protection. It is not in harmony with the present policy and the future destiny of the country. The republican administration at Washington is now engaged in the labor of extending the foreign trade of the United States. Expansion is the magic word of the hour, and the extension of territory is only incidental to the enlargement of trade. But it is absurd for a great nation to go abroad demanding an "open door" and asking foreign countries to remove restrictions on the purchase of American goods, when here at home there are tariffs ranging up to 100 per cent which were adopted for the avowed purpose of keeping goods from other nations out of this country.

The republican party has entered upon a new career, and to make it symmetrical and progressive the abandonment of the policy of protection is essential. Life-long advocates of protection can hardly be expected to turn suddenly to the policy of free trade, but they can proceed to abolish protective tariffs on

the ground that they are giving trusts and combinations an opportunity to mulct the people. Certainly no protection should be afforded to an industry which is entirely controlled and regulated by a single head.

There are two reasons why this is true: One is that the combination is able to fix prices and is likely to put them as high as possible without restricting consumption, and the law should aim to prevent such a practice, rather than to encourage it. The other reason is that the combination of numerous factories in one line of industry results in such a curtailment in the cost of production and distribution of goods that no ordinary enterprise can compete with it, and hence there is no need of protection, even from the protectionist's point of view.

The republican party is denounced by its opponents as the friend of trusts and combinations. It has an opportunity now to repudiate the stigma by adopting the policy of abolishing the protective tariff on every article which is produced by a trust. When this movement begins it will not end until the last vestige of the absurd trade-shaking policy of protection is wiped from the statute books.—Kansas City Star.

**INTEREST RATES.**

Money is continually getting cheaper, the declining tendency has been going on for years. The probabilities are that in the next twenty years we shall see farm loans being made at 3 per cent and that good commercial paper will be selling at 2½ per cent and call loans on approved collateral will go as low as 1½ cent per annum.

Necessarily this will result in a lower investment return on all classes of stocks and bonds. Three per cent government bonds will sell at over 150 and first-class four per cent railroad bonds will sell about 170.

The much abused money power does not seem to be able to hold up the rates of interest and it seems quite remarkable that in view of the greedy, grasping, grabbing reputation of this power that it should so complacently submit to the declining returns on the only thing it has to offer to the public.

The cheaper money is, the higher in price other commodities become and with these declines in the rates paid for the use of money will come enhanced value to farms and real estate of all kinds.

The only element of real danger now exists in the exploitation of various industrial securities. The speculative public are quite quick to realize the danger of absorbing too many of these wind and water inflated securities however and the banks of the country will examine them very carefully as collateral so that the prospect of their cutting much of a factor is minimized.