THE COOS BAY TIMES, MARSHFIELD, OREGON, WEDNESDAY, JANUARY 1, 1913-EVENING EDITION.

Special Sale E. PALE The Tailor

IS compelled to leave the city on account of ill health and will sell all suitings BELOW WHOLESALE price.

Theese goods were purchased for the best trade and are for ladies' and gentlemen's suits and one-piece dresses.

Call at Once to Secure a Great Bargain

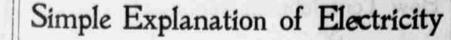
E. PALE & CO.

379 North Front St.

Marshfield, Oregon

USECLEANING AND WINDOW CLEANING We make specialty of this work





FORBID SONGS . Whenever you ask an electrical en- miles of where the current is gener gineer a question he slezes a pad ated. We have said that an electric genand draws a picture. This is geterator of ten horse power capacity

ting the cart before the hore.

Electricity is a far more definite

science than that of steam power.

The public has learned from constant

the energy liberated by burning coal

The picture is a graphic representation of an idea. You have to com-prehend the idea before you can Everybody's Doin' It' and 'When I Get You Alone Tonight' Barred. grasp the significance of the picture.

WASHINGTON, Dec. 31 .--- "Members of the Young Men's Christian Association and visitors to the association building will please refrain repitition that about 90 per cent of from the playing or singing of music of the following kind in or about to run a steam engine is wasted. In the association: 'Hitchy-koo,' 'Row, Row, Row,' 'Everybody's Doin' It' and 'When I get You Alone Tonight.

"Such songs are not at all in keeping with the ideals of the association.

This notice signed by W. M. Knolls Cooper, general secretary, appeared on the bulletin boards the Y. M. C. A. building.

"For many years past," Cooper, "I have notived a steady lowering in the moral tone of the average popular song. Formerly street music was derived from the operas of Gilbert and Sullivan but nowadays, they seem to come most-ly from the burlesque stage. Twenty-five years ago many popular songs possessed considerable merit; today they are unspeakable.

and Storage Co.

L. H. Heisner, Prop.

Phones 98-R. 120-J '9-L

Fisher Auto Service

Wm. Fisher, Proprietor. Phone orders to Hillyer's Cigar Stand, Phone 18-J. After 11 p. m. phone 5-J. Night phone 181-R. Marshfield, Oregon.

A modern Brick .utiding, Electri: Light, Steam Heat. Elegantly Furnished Rooms with Hot and

C. A. Metlin, Prop. Rates: 50 cents a day and upwards Cor. Broadway and Market

The Sign of

Always

Cold Water. HOTEL COOS

guarantee our work.

an electrical machine the waste is far less and the amount of energy that is generated can be measured far more accurately. Electric generators are machines to transform mechanical power into electrical power. In other words, they generate electric current when driven by mechanical power. They in are run by steam engines, turbines. gas engines or some other form of said mechanical power called "prime movers." The generator is constructed to transform the amount of mechani-Formerly cal power that the prime mover running it supplies. A generator run by a ten horse power engine, for in-stance, will transform ten horse power of energy, less a small percentage

(about ten per cent) lost in the process. Electrical engineers don't usually say that a generator transforms ten horse power. Their measure of energy (or power) is the kilowatt, The Star Transfer which is equal to one and a third horse power. So they say the generator transforms seven and a half kilowatts, which is the equivalent of ten is prepared to do all kinds of hauling horse power. Why should this change on short notice. We meet all trains in nomenclature be any more conand boats and we also have the latest fusing than to say that one inch is equal to two and a half centimeters? style Reynolds Plano Mover. We

Mention the action of electric current to a neophyte, and he immediately assumes a look of blank perplexity. Yet the fundamental facts about electric current are exteremely simple. An electric current will not move unless it can move in a complete circuit, and get back where it came from. This is why it is safer for a man handling an electric current to work with one hand behind his back. He is then not likely to touch it in two places and thus complete a circuit through himself. Electric current may be said to have exactly the same sort of intelligence as a child playing puss-in-the-corner. The child will not leave the corner it occupies until it sees a corner free for it to go to. By likening the elec-tric circuit to the piping system which leads the water to a basin and away from it to the sewer, it is possible to grasp this idea by noting the difference in the action of electric current and of the water. in the case of electricity, if you open the Good Candy if the discharge pipe is free all the the way, and thus it has the power of finding this out instantly even if the obstruction in the discharge pipe is very far away. In other words, an electric current acts physically like one continuous piece of material, such as a hoop or an endless chain,

run by a ten horse power engine will transform ten horse power of mechanical energy into ten horse power, or seven and a half kilowats, of electricity with practically no loss. This is true of a direct current generator, but in an alernating current genera-tor larger carrying capacity is required for the following reason. Electric power is the product of the volume of current (amperes) and the pressure at which it flows (volts) just as the energy with which water flows out of a pipe is the result of the volume of water and the pressure at which it is flowing. The product of the amperes and volts is cal-led watts. When the product is 1000 (100 volts x 10 amperes, or 10 volts x 100 amperes, for instance) it is called one kilowatt. In an alternating current machine the amperes and volts reverse their direction with marvellous rapidity, but not always at the same instant. The amperes may arrive at a motor which is being run by the generator slightly before the volts or pressure. In that case the amperes with no voltage be-hind them are idle and do not produce any power. But the generator, the motors and the transmission lines, in fact all parts of the system, have to be made large enough to car-ry all of the amperes, whether they are accompanied by volts and therefore produce power or not. The idea can be best be expressed by a simile. Imagine a man in business on borrowed capital, who expects to make a certain percentage a year on the commodity he sells providing he sells it promptly. Supposing he cannot sell it promptly he has to pay interest on the capital invested in his stock. This cuts down his net profits. The failure of the pressure (volts) to reach the motor at the same time as the volume of current (amperes) cuts down the amount of power delivered by the machine in precisely the same way as the slow sales cut down the profits of the business man, If the the volts come a little bit later or earlier than the amperes so that 20 per cent of the amperes are not accompanied by volts this reduction is 20 per cent and the machine, or system, is said to have only 80 per cent power factor. Therefore a generator with 80 per cent power fac-tor would have to be big enough to transmit the current corresponding to 12 1-2 horse power in order to transform all the power from a ten horse power engine. Twenty per cent of the 12 1-2 horse power capacity, or 12 1-2 horse power, is idle capacity. The remaining ten horse power are transformed, and the generator, by being built large enough to transmit 12 1-2 horse power, suc-ceeds in transmitting the full output of the engine running it-ten horse power.

WOMAN PROPOSES.

(Believing in a thorough reform, a certain suffragette club offers the