MODERN PRINTING PRESSES

Facts About the Construction of the First High Speed Printing Machine.

R. HOE TELLS THE STORY OF PROGRESS

Wonderful Development in the Mechanical Seconsities of Modern

paper possible, deserves to rank as one of speed press. the great achievements in an age of me- Many improvements in the method of chanical invention. Certainly there is no handling the paper were devised after Koeother machine of such power and complexity nig's press came into use and thousands that pomeorses at the same time such ac-curacy and delicacy, handling, printing and in use today. An American Improvement

tween the fingers without an effort. Consider for a moment the work done These presses answered the requirements by one of the great presses known to print- of the newspapers when they were small in ers as "octuple" machines. To begin with, size and circulation. But with the advent of it is composed of about 15,000 separate the daily, with its circulation running up to pieces, and requires eighteen months for many thousands, they proved inadequate. Its construction in the largest manufactory There was a demand for something better, in the country. It is more complicated for greater speed, than a locomotive or a watch, or any of the forms of mechanism to which we ordinarily refer as remarkable for their intricacy or nicety.

rolls of paper, each more than five feet this problem. A number of experimental as experts in other fields might solve prob-

marked by notable advances and improvements in the art.

when a Saxon named Frederick Koonig doimpression from a form of type carried rapid-drying inks.

backward and forward on a flat bed.

press this newspaper could not be printed Koenig improved on this by a continuously chesp paper, so and placed before you in its present form; revolving cylinder press which attained the the daily press. certainly not at its present cost. The fate of soo sheets per hour. The advance modern newspaper, with its wonderful serv- from 250 sheets per hour, the record of the Ice in epreading information and molding old hand presses, to 800 sheets, was a deopinion, is perhaps the greatest civilizing cided advance. Moreover, it introduced a and controlling force of the time. The new principle which has been of the first rapid printing press, by making the news-

folding sheets of paper that can be torn be- on this siyle of press, known as the double cylinder, attained a speed of 4,000 per hour.

First Rapid Printing Press.

In 1845 the firm of R. Hoe & Co., which had mechanicians engaged in the manufacture This press is fed from three continuous manufacture of printing presses, attacked sat down and figured to these results just several important instruments for measur-

wooden screw press used by Guttenberg back different phases of the problem. Time, 'notion with color printing, which has re-in the middle of the friendsh century and effort were expended without quired the addition of more new parts to But while there is no hard and first line with in the study of existing models. In the mechanism of the machine A sing e separating the new from the old or the erecting experimental multiples and trying color press built last year for one of the perfect from the primitive in the history of all manner of devices suggested to meet increase dulites in the country contained be-printing there are certain dates that are the requirements of the situation.

New Ink and New Paper. The difficulties were not wholly of a me-

The first of these cylinder presses was in the roll of uniform perfection and and so on, the price mounting with the com-

 Journalism-Genesis of
 The first of these cylinder presses was
 in the roll of uniform perfection and and so on, the price mounting with the com-strength. The paper-makers were led to plexity of the press likeli, and the increase make a study of producing large rolls of in the weaple to do. In the paper methy these requirements. They best equipped newspaper office in the com-solved the problem of facing a strong and try the value of the machinery employed

 Were it not for the high speed perfecting
 Intractions-to each impression. But in 1814
 But in 1814

chesp paper, such as could be afforded by. falls little short of \$1,000,000,

reliable and accurate delivery of the printed in matters of detail and in the direction of papers.

operation fifteen minutes.

Thus it will be seen the rapid-working web press is a composite for which no one man deserves the entire credit. It is one of the most notable examples of a reafly

sponse to a specific demand. The expert

tween 50,000 and 60,000 individual parts. It

seems as though this was carrying the posts)billies of one machine to its utmost Due important change took place in 1506, chanical nature. One was in the set off of limits, but it is by no means certain that when a Saxon named Frederick Koenig do-vised a form of press in which the paper avoided by the co-operation of the ink-Such machines as this cannot be conwas carried on a cylinder and received its | makers, who were induced to devise special structed without great expense. The price of the most improved style of quadruple Another drawback was in obtaining paper machine is \$35,000, of a sextuple \$45,000,

> From the web press of 1871 to the latest While these improvements were being improved form described at the beginning wrought out the press manufacturers were of this article, with its speed of 06,000 per working on the problem of a rapid sever- hour, there has been no radical change of ance of the sheets after printing and the style or form. The improvements have been

> an increased size and capacity. Even at the The most important device relating to present time no thoughtful man would venthis matter was the patent of Stephen D. | ture to say that the limit of speed has been Tucker, a momber of the firm of R. Hoe & reached. In the future our successors may To. It was called a "gathering and deliver- smile at the designation of a press which ing cylinder," and was able to handle the prints less than 100,000 papers per hour and papers as fast as they were printed. It is with cylinders revolving 200 times to the the mechanism on which the great speed of minute as "rapid." Nevertheless by our the modern press depends. Without it one present standards it is rapid and its conof the great machines would block a press struction deserves to rank among the great room with papers before it had been in achievements of the century. R. HOE.

> > GOSSIP ABOUT NOTED PEOPLE.

Prof. Albert A. Michelson, head instructor of physics in the University of Chicago wonderful mechanism constructed in re- since 1852, who has just been elected an honorary member of the Royal Institution of Great Britain, was born in Streina, Poland, in 1852. He has found time to invent ing length by light waves. The invention that brought him most fame is an interferometer, which not only measures light waves, but counts the waves. His first notable invention was an instrument for measuring the velocity of light. He measured the standard meter at Paris last year. He is also the inventor of a spectroscope that has a higher separating power than any other instrument in use.

> "He was 6 years old, and engaged in chemical experiments." says the Hartford Courant, in speaking of President-elect Hadley of Yale. "Lacking an ingredient, he appealed to the heads of the household. 'Mother, have we any carbonate of soda in the house?' 'I don't know' (indifferently). 'Father, have we any carbonate of soda?' 'I don't know, my son' (still more indifferently). The young philosopher pondered the replies and then gave judgment. 'I know the reason why neither my father nor my mother can tell whether there is any carbouate of soda in the house. Mother does not know what carbonate of soda is, and father does not know what is in the closet."

The story is told of General William Ludlow, now military governor of Havana, that when he was stationed at Detroit some years ago, in charge of river and harbor work he was visited by a contractor who wanted to do some government work. With his viser he had noticed this or not, but saving they had better smoke while talking drew slowly and carefully. Then he handed the

The Boston Advertiser says: "Justice Baldwin of the Connecticut supreme court, who has lately expressed himself so vigorously in favor of the whipping-post, is personally well known to a number of leading Boston lawyers. He was here very often during the long proceedings before our supreme court, and the referce appointed

by the court (ex-Governor Robinson),

ORCHARD & WILHELM CARPET CO.

Lace Curtains

This store is recognized as lace curtain headquarters and we have never in our history been able to offer our customers such curtain values-We are exclusive agents for several manufacturers of Novelty Curtains-so we are the only house able to show these exclusive novelties.

Fancy weaves in Wach Lawns, Cross Bar Grenadines, with heavy raffles, very dainty Chamber Curtains, 3 yards long-These have style as well as service-our offering, per pair, \$1.50.

Nottingham Noveltics, plain heavy net center with heavy imitation Brussels Border, 54-inches wide, 3 yards long, with button hole edge-We have seen such curtains retail at \$3.00-our price, \$1.50.

- Serim Center effect, colonial border, suitable for partor or library-this is our key note of \$1.50 curtains. Fish Net with Grecian Border, pure white, this is an exact copy of very flac Renaissance Lace at only \$5.75 per pair. Imitation Battenberg, in cream, also at \$3.75.
- Extra size curtains for large windows and hotels, heavy button hole edge close woven Nottingham, full 4 yards long and 60 inches wide, we are offering this excellent curtain for \$2.50 a pair. Another large curtain, Irish Point pattern, closer mesh, same size, 60 inch wide, 4 yards long, \$3.25.

Scotch Net, extra length curtains, full 4 yards long, 54 inches wide, \$4.25 per pair. A new Novelty Point de Paris, Vonetian Border, handsomely embroidered on fine bobbinet, conventional design, \$5.75 per pair.

- A real Brussels Lace, fine quality, novel design, \$6.50 a pair.
- Very heavy and rich Arabian, in the new coffee color, suitable for parlor, library and dining room, exquisite embroidery, heavy cable net center, unusual value at \$5.00. NOVELTY MUSLINS-by the yard, in embroidered stripes in fancy weaves-border on both sides, making a most ar-
- tistic yet inexpensive curtain for chamber use, price per yard, 22c.

Sash Curtain Laces in grenadines, fish nets, plain figured and point d'esprit center-30c a yard. Colored stripe Grenadines in blue, yeñow, gold and green, these are very popular goods for chamber curtains and bed covers-45c a yard.

Furniture Values

beyond comparison-goods such as we show at these prices are bargains without a doubt.

Large and varied assortment of Chiffoniers, all the different finishes, at all prices. Solid oak Chiffonier with large cabinet and large bevel mirror, nicely finished and carved, only \$5.00.

COUCHES-The best couch for the money yet offered. Monday we put on sale a very choice mahogany finish frame couch, upholstered in the best velour has 6 rows deep tufts, 20 inches wide, 6 feet 6 inches long-extra special at \$13.85.

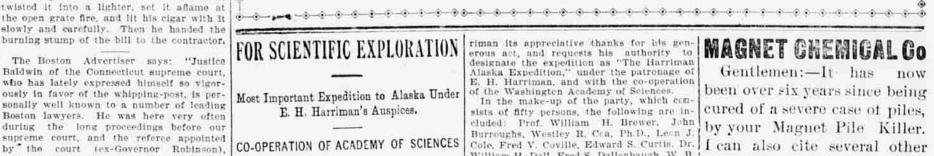
DAVENPORT SOFAS-A choice selection of these popular pieces-one in particular we mention, is a handsome mahogany finish frame 6 feet long, back 29 inches high, seat 21 inches deep, covered in choice velours. The best Davenport value ever offered, Seeing is believing, and to see one of these sofas means that you cannot help but buy one at our price, and save about one-third price, only \$17.50.

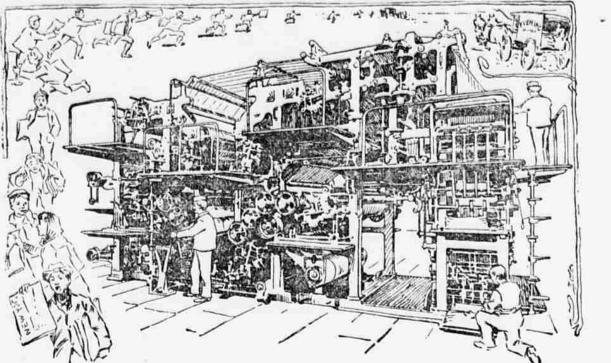
IRON EEDS-A choice Iron Bed, nicely brass trimmed, full size or three quarter, height 54 inches. The best of iron bed value-our price only \$2.75.

SPRINGS-Monday we put on sale until they are all sold, a steel coll spring, regufar value \$2.50, but we will sell 100 of these at, each, \$1.00.

REFRIGERATORS-We are sole agents for the famous North Star Refrigerator, made on scientific principles-cork insulation-the best non-conductor of heat known to science. Entire interior removable. Positively the best refrigerator made and guaranteed by us the most satisfactory. Price no more than the ordinary kind.

Orchard & Wilhelm Carpet Co. 1414-16-18 Douglas Street.





OCTUPLE STEREOTYPE PERFECTING PRESS AN D FOLDER.

as it will run without tearing. At its curred to the experimenters that by placing It is a concrete illustration of the saying highest speed the press will use up over two the type instead of the paper on the cylinder miles of this paper in an hour, or fifty greater speed could be obtained. The re-miles of paper of the width of an ordinary suit was th construction of a press known as the "Hoe type revolving machine," emnewspaper page.

In terms more readily grasped, this in-dicates a capacity of 96,000 four, six or light-page papers per hour. Not only are the Ledger office in Philadelphia in 1846. these papers printed at this astounding The basis of these inventions consisted in rate, but they are also cut, folded and an apparatus for securely fastening the the cutters, but were simply perforated counted. In other words, the press per- forms of type on a central cylinder placed after the printing. They were drawn by acforms every operation connected with the in a horizontal position. This was accompaper from the time the rolls are put into plished by the construction of cast from position until the finished product emerges beds, one for each page of the newspaper, structed that six or any desired number ready to be put on sale. Ninety thousand The column rules were made "V" shaped, the product papers could be gathered one over papers per hour means 1,500 per minute, or | 1 e., tapering toward the feet of the type. twenty-five copies for every second ticked It was found that, with proper arrangement

wide, and all reeling off the paper as fast | machines were creeted, and finally it oc- | lems in mathematics or military tactics. that no matter what the demand is, if it is strong enough it will be satisfied. The press which was constructed in 1871, s a result of these investigations, was fed from a roll or web of paper over cylinders

carrying stereotyped plates which printed it on both sides. The sheets were not entirely severed by celerating tapes, which completely separated them, into a gathering cylinder so constructed that six or any desired number the other. These, by means of a switch,

iting card by way of further introduction the contractor put down on the table a crisp \$50 bill. Ludlow made no sign as to whethforth two cigars and gave the contractor one of them. Then turning to the table and not seeing a match, he took the \$50 note, burning stump of the bill to the contractor.

were, at the proper mement, turned off onto

off on your watch.

an hour, 1,200 to the minute, or twenty without danger of the type falling out. every second.

with speed that is well-nigh incredible. Its operation is easy and resistless. A

and cylinders begin to revolve, going faster and faster until the streams of white paper are pouring into the machine too rapidly for the eye to measure. On the other side the printed sheets rain out so fast that one sees. only the continual flash of the steel fingers that seize and forward every sheet.

The operation of the press at its highest rate of speed means that each paper re ceives its impression in less than one-fifth of a second. How a permanent imprint can be made in that space of time is a marvel difficult to comprehend. Yet, it is done. The ink does not smut nor rub off and oven the most delicate lines of an illustration are accurately reproduced.

Genesis of the Invention.

It is easy to understand that such a maments rather than a single one. It is a gradual and natural development from the



cines in the hands of only mising medi-perienced doctors make a feeble, "small-calibre" sort of resistance to the enemy, pr. Pierce's magnificent "Golden Medical Discovery," with its splendid blood purify ing, liver-toning, strength-creating power, huris the fortress of discase from its very foundations, and searches and drives out the lurking symptoms of weakness and de-bility from every secret hiding place in the entire physical system of mankind. The work of this grand "Discovery" is thorough; it gives the health that is all health; the strength that is solid and sub-stantial and lasting, not flabby fat, not false stimulus; but genuine, complete, renewed vitality and life-force. Discovery," with its splendid blood purify

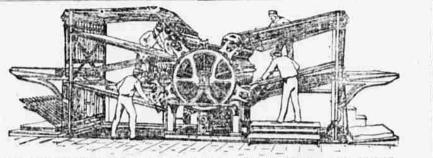
stimulus; but genuine, complete, renewed vitality and life-force.

witality and life-force. "I had been a sufferer for fifteen years nearly all the time." says Mrs. Sarah E. Tavlor, of Hureka Greenwood Co, Kans. in a liriendlyletter to Dr. Pierce. "In August, 1856, was taken with severe cramping pain in my stomach. The doc-tor here said it was due to gall stones. He re-lieved me for a short time, and tken there was a hard lump about the size of a goose egg formed in my right side. It became so sore I could scorely walk about the house, and I had no sp-petite. I consulted the best doctors in town and they said medicine would do me no good. I "You advised me to take your Golden Medican Discovery" and 'Piessant Peilets, which I did according to directions. I began to feel better, and my appetite came back. Now it is a hitle over a year since I began to do my own work. I am stronger than I have been for five years."

for locking up or securing the type upon sheet flyers, which deposited them on the Most of the larger newspapers have in these bels, it could be held firmly in post- receiving board. their ordinary issues ten or twelve pages, tion, the surface forming a true circle, and | This press for the first time did away Of these the press will turn out 72,000 in an hour, 1,200 to the minute, or twenty without danger of the type falling out. The first of these presses had only four ning of rapid printing as that term is under-

The machine weighs over sixty tons and impression cylinders, necessitating four boys stood today. The only duties men were reis massive in its proportions. Yet its touch is as deft as that of human fingers. It of feed in the sheets. The running speed obtained was about 2,000 sheets to each were the starting of the press, watching to handles the papers accurately, cuts them feeder per hour, thus giving, with what see that its work was performed properly precisely and folds them up evenly, all was called a "four-feeder," or "four-cyilin- and taking away the papers after they were der" machine, a running capacity of about piled flat on the receiving board. 8,000 papers per hour printed upon one side.

First Great Power Press. man throws back a fever; the many shafts As the demands of the newspapers increased The first press of this pattern was set



A PRIMITIVE PRINTING PRESS. FOUR CYLINDER TYPE REVOLVING.

more impression cylinders were added, until up in the office of the New York Tribune in these machines were made with as many as 1871. Of course it had been thoroughly chine as this, performing so many different ten grouped around the central cylinder, tested beforehand and its makers were conoperations, represents a series of achieve- giving an aggregate speed of about 20,000 fident that it would do all that they claimed papers per hour printed upon one side. A for it. Nevertheless considerable exciteevolution in newspaper printing took place. ment attended its first practical operation.

ournals which before had been limited in When the lever was thrown back and the their circulation by their inability to furnish cylinders began to revolve the paper reeled the papers rapidly increased their issue, off the web in perfect form without inter- best part of the important figures in my and many new ones were started. The new ruption and delay, while, at the other end of census," returned Mr. Porter. presses were adopted not only throughout the press, the papers were laid out in a perhe United States, but also in Great Britain. feetly even pile, ready to be folded for de-The type-revolving machine marked -a livery. The new press delighted all who saw great advance in rapid printing. It was be- its operation, and carned the encomium of lieved that the problem had been settled, "a mechanism of almost human intelligence at least for a long time to come. It was and more than human accuracy. scarcely conceivable that any paper would When the first of these web perfecting want to print more than 20,000 copies per presses was put into successful operation it

was claimed that there was no limit to its The type-revolving presses had scarcely speed except the ability of the paper to been put into general operation in this coun- stand the strain of passing through the try and Europe before the constant growth press. This claim seemed to be justified by in circulation figures demanded still further the fact that 18,000 an hour were printed

mprovements. First Curved Stereotype Plates.

Various experiments had demonstrated in most offices 12,000 per hour was the actual the possibility of casting stereotype plates running speed. The process was brought to One feature of the later improvement of on a curve. perfection by the use of flexible paper ma- the web press illustrates the way in which about 1,000,000 tons of ralls-figures which rices, upon which the metal was cast in domand has acted to stimulate invention in exceed the annual output of all the works urved moulds to any circle desired. These this field. The first press did not fold the plates were placed upon the type-revolving papers, but delivered them flat. They were firm has lately made arrangements to pronewspaper publishers were thus enabled to left to those who sold them to fold them. duplicate the forms and to run several maduplicate the forms and to run several many Here was a channel device. The news-chines at the same time, with a view to time-saving mechanical device. The news-chines at the same time, with a view to time-saving mechanical device. The news-chines at the same time, with a view to time-saving mechanical device. The news-chines at the same time, with a view to time-saving mechanical device. The news-chines at the same time, with a view to time-saving mechanical device. The news-chines at the same time, with a view to time-saving mechanical device. The news-save time save time time time time time to the total output offices as many as five of these machines operation. It was found immediately that States as a whole up to 1894. This gigantic were kept in constant operation. men hurrying to their offices or trains

The difficulty in obtaining high speads would purchase the folded papers in preferwith these machines was not in printing fust ence to the others. Of course, such an adenough, but in getting the sheets to the vantage of competition could not be allowed nachine rapidly and in disposing of them to remain in the hands of a single pubquickly after they had passed through the lisher. All the offices had to put in folders. The advantage of combining this operation press.

The demand was for a press which with the others performed by the press was could print from a continuous roll of paper, clearly apparent. And so one more funcleaving the sheets to be cut and folded after tion was added to the already complex they had passed through the machine. It duties of the printing machine. was necessary, too, to insure satisfactory So it has been with every advance. The

study this problem in a comprehensive man-ner and to solve the difficulties in the way folded, cut and mitched into a complete of attaining much higher speed than had pamphlet on a single machine at the rate of ever before been attempted. 45.000 per hour. Expert mechanicians were set to work on | The latest innovations have been in con- guaranteed.

growing out of the Andover heresy hunt. Frof. Baldwin, as he was then called, on

account of his connection with the Yale law school, is exceptionally gentle in all his language and manners and appearance about the last man in the world from whom one would expect to hear a suggestion of giving a criminal thirty lashes on the bare back. 'well laid on.' as the judge used to say in England in the good old days."

One of the secrets of the success of Robert P. Porter, editor, tariff expert, superintendent of the United States census of 1890, and recently United States diplomatic agent probably have been more novel or importin the West Indies and afterward in Germany, is his wonderful memory for figures. coast. He fairly revels in statistics. In his home in New York there are several rooms filled with volumes upon volumes of industrial comprising an area of about 5,773.99 statute the party and some invited guests at the statistics. Many of these Mr. Porter can readily quote from memory. An illustration of this occurred not long ago. A Chicage man was boasting of the rapid growth of his city.

"We have 2,000,000 inhabitants now, You gave us 1,160,000 in 1890," he said. "Not as much as that," replied Mr. Por-

ter. "The exact figures were 1,099,850. Your chool census of 1892 gave 1,400,000." The conversation then turned upon New York City.

"You underestimated that also." "Yes. We gave New York 1,515,301, and

the state census of 1892 gave 1,801,739." "Where do you carry all these figures?" asked the Chicago man. "I believe I can repeat from memory the

"Can you tell me how many negroes there

were in this country in 1890?" asked the westerner with an air of triumph. "There were 7,470,040," replied the sta-tistician without a second's hesitation;

and there were 107.475 Chinese." The visitor took down the census report com the book shelf and found that Mr Porter had not made a single mistake.

Fig Iron Product.

The Carnegie company alone produces nearly 2,000,000 tons of plg iron per annum which is almost as much as the total joint from a single feedboard. This was, however, the maximum speed obtained by this press. thirty years ago, and more than the total output of the United States up to the year

1872. The same works produce annually in Great Britain up to 1880-and the same machines instead of the type forms. The given to the carriers in rolls and it was duce at Homestead about 1,000,000 tons of open-hearth steel annually, which is more than the total open-hearth steel output of corporation does not stand alone. The IIIinois Steel company has also much larger scientific expeditions it has ever b resources of production than any concern fortune of this country to send out. in Europe, and so also has the Tennessee Coal and Iron company in another and not Tess interesting region.

Discovered by a Woman.

Another great discovery has been made, and that, too, by a lady in this country. Disease fastened its clutches upon her and for seven years she withstood its severest tests, but her vital organs were undermined

and death seemed imminent. For three Regular size 50c and \$1.00. Every bottle

Will Visit Yukon District and Study Topographical Features, Timber, Fauna, Minerals and Natives, for the Benefit of Science.

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Chiffonier, 5 drawers, full

size, lock on each drawer-

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Since Vitus Hehrings set out in 1725, at Peter the Great's command, on his ar-

luous work of exploring the Siberian coast company Mr. Harriman joined the party at and waters, leading to the discovery of New York, where a special train was provided to convey them westward. This Alaska, there have been many expelitions to the Land of the Midnight Sun, but none train consisted of the Pullman composite buffet smoking and baggage car "Utopia, ant than that now nearing the Alaskan the Pullman special dining car "Gilsey, Indubitable evidences have been and two Pullman compartment cars. Reach coming from the territory-purchased at 2 ing Chicago in the afternoon of May 24, cents per acre from Russia, in 1887, and fine repast was given by Mr. Harriman t square miles, with a sea coast of 26,000 Auditorium hotel, after which the journey miles-that it is a region covered with a was continued over the Chicago & North network of virgin streams and mineral western to Omaha, the headquarters of the

> in which road Mr. Harriman is largely in After surveying the chief objects of in-

been prepared to make the slightest investhe Pacific coast commenced. President Burt of the Union Pacific at

tmched his private car to the train and ac companied the distinguished personage over the Union Pacific to Granger. On the needed help. There were those, however, | way to Portland a stop-over of one day was arranged at Shoshone, enabling the visitors possessed of sufficient means to outfit the to get a view of Great Shoshone falls, which except in point of shape and volume of water, compare with Niagara. Niagara river

Here, however, is a body of men not seeking fortunes and untold wealth amid the

sailed on the steamer George W. Elder May 31, and from Victoria, B. C., at 11 a. m pose of making researches and gaining sci-June 1, the steamer being specially char entific information on the spot, "in fartered by Mr. Harriman for this trip.

away Alaska." Along the Northwest Coast. Mr. Harriman has always taken a deep The projected tour is along the archipel nterest in the sciences, and particularly ago fringing the northwest coast. clentific investigations of comparatively Coast range presents a hold front to the unknown countries; and for many years ias been one of the most liberal patrons of ocean from the Columbia river northward, and the Columbian and Alexander archipelthese scientific researches.

Lately his attention has been directed to--the veritable "Sea of Mountains." Glaward Alaska, believing that that wonderciers stud all these Cordilleran slopes, and output of Germany, France and Belgium ful and comparatively unknown territory the tide water glaciers at the head of Alashad much to contribute to the cause of kan inlets are paralleled only in the excience could proper means be afforded for treme polar regions. The scenery is subopening nature's storehouses, always exensive; so, in order to interest the leading lime and a cruise along the northwest coast scientists of the country heartily in the has well been termed a "monotony of mag-matter he called to his aid the celebrated nificence." The mountains are covered with value derived from the great vegion known scientists, Dr. C. Hart Merriam, chief of dense forests, the waters abound biological survey. Department of countless varieties of fish, and the northern

Agriculture, Washington, D. C.; Dr. Lewis moors are the camping ground of great Morris, one of New York City's famous flocks of aquatic birds. physicians, and the Washington Academy of The exploration of the vast Yukon dis-

Sciences, Washington, D. C., and provided trict would be impossible in the limited the means to make the expedition a suc- time at the disposal of the members of the great value. cess. In this way, Dr. Harriman became expedition, but the Coast range mountains the patron of one of the most important in southeastern Alaska, in which the great scientific expeditions it has ever been the Yukon has its source, may fornish many new facts to the explorers. These ranges, The expedition in the cause of science, with an aggregate width of about cighty duct in gold and presents every indication having thus been provided for, the Wash- miles, the whole of which is close set with of a country rich as well in other metals, ington Academy of Sciences was invited high mountains, constitute an important and in coal. Its southern portion, comprisand at a meeting of that institution May 2. orographic feature in the entire region. In ing an area of not less than 35,000 square the invitation was unanimously accepted these mountain chains status topographical population. and the following preamble and resolutions in greater or less force, the topographical population. The natives of Alaska are the most inter-

Whereas, Mr. Edward H. Harriman has events of the glacial period. provided for an expedition to Alaska, to be undertaken in the summer of 1899, and Alaska follows the coast, but at varying dis-

The fauna of the region traversed by the is Mrs. Luther Luth." Thus writes W.C. Hamnick & Co. of Shelby N. C. Trial battles free at Kuhn & Co.'s drug store Regular nize 50c and \$1.00. Every bottle guaranteed. The finan of the region traversed by the ington Academy of Sciences, offering them in the coast region of Alaska, therefore, it is Resolved. That the academy, in behalf of American science, hereby tenders Mr. Har-

William H. Dall, Fred S. Dallenbaugh, W. B Devereux, Miss Dorothea Draper, Daniel G. cases where the users have Ellot, Prof. B. K. Emerson, Prof. B. E. E. been permanently cured. Fernow, Dr. A. K. Fisher, Henry Gannett, G. K. Gilbert, E. H. Harriman, Charles A. I consider it of such value Robert Ridgway, Prof. W. E. Eltter, Edwin to humanity that I will gladly C. Starks, Dr. William Trelease, etc. Traveling in Style.

answer any communications On May 23 the persons selected to ac- regarding it.

Very respectfully, FRANK KELBLE. 1515 Farnam St. News Dei lers.

SKILL WON ALL OUR BATTLES AND MADE US WORLD WIDE FAMOUS. Skill is our motto in kinds of repairing all BUSY and gives us a local fame that we are proud *IEWELER* In cut glass and fine art goods, we are specially prepared for Weddings and Graduations. T. L. COMBS





as the Yukon district.

Economic Importance of Alaska.

Of the economic importance of the Alaskan region it may be said that the information which this expedition will obtain is sufficient to warrant a confident belief in its

The country is known to be rich in furs well supplied with timber and is traversed by a great length of anvigable rivers. It is already yielding a considerable yearly pro-

esting study of ethnologists, and this branch The timber line of the whole interior of of science will now be sure to receive an important contribution, and as all branches

Four young ladies, who earn their own

Leaving Portland for Seattle the party 1520 DOUGLAS ST. SOUTH OMAHA STORE-21th & M Sts. agoes are half submerged peaks and ranges

wealth practically unlimited. Long ago, famous Overland Route, the Union Pacific

men returning from that country told of its richness and their anxiety to go back with terested. the necessary supplies to develop the mineral and other rescurces. They had only

terest in Omaha the journey to Seattle on tigation, and hence came back poorer than

they went. This of itself was an argument against their theories on the subject, and, therefore, they were unable to enlist the who believed the stories, but they were not

presentors. Purpose of Harriman Expedition. falls 228 feet in twenty-three miles; Sho

shone, 500 feet in five miles. snows and glaciers, the mountains and reacherous streams of the frozen north. but undertaking an expedition for the pur-