

J. L. BRANDEIS & SONS BOSTON STORE

Extraordinary Announcement

We have discontinued our dressmaking department and will sacrifice all the high grade dress fabrics, including

WORSTEDS, SILK NOVELTIES, TAILORING CLOTHS, materials for evening dresses. CREPE DE CHINES, GRENADINES, FANCY NETS, BLACK AND COLORED SHEER SILK ETAMINES, ETC. Also TRIMMING LACES, in fact everything usually sold in a high class dressmaking establishment.

THE ABOVE GOODS were bought less than 60 days ago from the best importers in the world, especially for this dressmaking department. We canvassed the markets at that time for the very highest grade materials, and we succeeded in placing before our patrons goods the like of which were never before shown in Omaha—elegant and exclusive.

Silks from the Dressmaking Dept.

At 69c, 98c and \$1.50 per yard.

All exclusive styles of imported grenadines in street and evening shades, gown patterns, waist patterns in fancy nets, crepe novelties, black and colored, sheer Etamines, lace striped linen etamines, fancy printed crepe de chine, crepe meteor, black and colored fancy embroidered mouseline de soie, printed satin peluche from 42 to 46 inches wide, including a fine lot of exclusive styles in jacquard satin foulards, plain silks, brocaded silks, novelty silks, actual value from \$1.50 to \$5.00 yard, the entire lot will be sold in silk department at—

69c, 98c, \$1.50 yd.

All the \$17.50, \$15 and \$12.50 patterns of silk melange, silk novelties, tailoring cloths, doeskin, venetians, panne cloths and the finest French broad-cloths, 5 to 7 yards in \$3.98 each pattern, go at \$3.98 \$3.98 per pattern.

(On bargain square.)

All the \$35.00, \$27.00 and \$25.00 camel's hair, zebaline, rope etamine, English and Scotch worsted patterns, will be sold at \$10.00 per pattern.

Laces from the Dressmaking Dept.

Removed to the Main Floor.

All of the fine trimming laces in black Arabian, white and ecru galoons, point Venice, Filie, Irish Crochet, Escurial, Gipure, Valenciennes, Chiffon Applique, Point de Gene, worth up to \$2.50, go at—

25c, 50c, 98c yard

All over silk nets from our dressmaking department, in plain and fancy nets, fancy dotted chiffon, Persian all-overs, shirred chiffon and tucked liberty silk, fancy embroidered French revering, worth up to \$5.00 yard, go at—

75c, \$1.50, \$1.98 yd

Hubermann's Furs at Half Price

Reputable Omaha Furrier's Entire Stock of Made-Up Furs at a Great Sacrifice.

The selling of this noted stock of furs has created unusual interest at this season of the year. It is evident that people appreciate advantages a sale of this nature affords. It is not often that high grade furs are offered at half their value. Mr. Hubermann's anxiety to retire from business was his reason for accepting our offer of less than 50c on the dollar, which resulted in your being able to secure such remarkable values in furs. Note the values.

Hubermann's Jackets—

- One Persian lamb jacket, blended sable trimmed, reduced from \$165 to \$85.
One Persian lamb jacket, chinchilla collar and revers, reduced from \$139 to \$65.
One near seal box coat with Persian lamb yoke, reduced from \$75 to \$35.
One astrakhan jacket, reduced from \$40 to \$17.50.
One electric seal jacket, chinchilla collar and revers, reduced from \$30 to \$14.50.
One electric seal jacket reduced from \$45 to \$22.50.
One electric seal jacket reduced from \$25 to \$12.50.
One astrakhan jacket reduced from \$25 to \$12.50.



Hubermann's Scarfs—

- \$15 genuine marten scarfs with eight streamer tails, extra quality, only \$5.00
\$12 near seal scarfs, reduced to \$5.00.
\$8.00 near seal and stone marten scarfs, \$3.98.
\$6.00 imitation stone marten and marten scarfs, \$2.98.
\$5.00 scarfs and collar, \$1.98.

Hubermann's Storm Collars—

- \$30.00 storm collars, reduced to \$12.50.
\$25.00 storm collars, reduced to \$10.00.
\$20.00 storm collars, reduced to \$7.50.
\$12.00 storm collars, reduced to \$5.00.
\$7.50 storm collars, reduced to \$2.98.

Hubermann's Muffs—

- \$1.00 fur muffs, reduced to 49c.
\$2.00 electric seal muffs, \$1.00.
\$3.00 electric seal and stone marten muffs, \$1.50.
\$5.00 electric seal and stone marten muffs, \$1.98.
\$7.00 electric seal and stone marten muffs, \$2.98.

Hubermann's Capes—

- One astrakhan cape reduced from \$30 to \$14.50.
One astrakhan cape reduced from \$37.50 to \$17.50.
One curly astrakhan cape reduced from \$25 to \$12.50.
Two curly astrakhan capes reduced from \$20 to \$10.
One plain electric seal cape reduced from \$20 to \$10.
Two electric seal capes reduced from \$25 to \$10.

Great Cloak Offer--\$25.00 Values \$5.98

Raglans, Automobiles, Box Coats and Short Jackets worth \$19 to \$25, at \$5.98

We have no hesitancy in declaring these cloak values to be the greatest ever offered in the city. We know not of an instance when goods of such high grade and character have been sold at such an insignificant price. All the garments are made of the very finest fabrics, the styles are the newest. It is a very comprehensive gathering of fine raglans, newmarkets, automobile coats and long box coats. The values range from \$19 to \$25, and we are giving your choice of the lot at \$5.98. Below you will find description of the garments.

\$19 Raglans \$5.98

\$5.98 for ladies' raglans, full length, made of medium weight kerseys and meltons, in castors and tans actually \$19.00 raglan, for \$5.98

\$25 Automobiles \$5.98

\$5.98 for ladies' long automobile, 3/4 length coats and other stylish garments, made of kersey and melton, in black, castor and tan, with inlaid panne velvet trimmings, heavy satin lined throughout, made to \$25, on sale at \$5.98

\$20 Box Coats \$5.98

\$5.98 for 27-inch box coats, in tans and castors only, trimmed with large beaver storm collars and beaver lapels, satin lined throughout, tailor stitched seams and edges, worth \$20.00, on sale \$5.98

\$25 Short Coats \$5.98

\$5.98 for ladies' fashionable short coats that formerly sold up to \$25, handsomely trimmed with fur and panne velvet, in all colors, reds, blues, castors, oxfords, fancy cuffs, coats or storm collars, full \$25 satin lined throughout, at \$5.98



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INCREASE IN MOTIVE POWER

One Great Factor in Problem of Modern Railroad Management

LOCOMOTIVES ARE GIANTS IN THESE DAYS

Hauling Power Limited Only by Strength of Couplings Which Bind Freight Cars Into Trains.

Annual statistics giving the total increase by American railroads of the supply of motive power and rolling stock, or, collectively speaking, of the freight hauling facilities, offer complete details as to the exact number of engines and cars that have been added to the working capacity, but they contain absolutely no reference to what is by far the most wonderful feature of this advance.

This is the great increase in the abilities of the units themselves, as regards cars, in their carrying capacities, with engines, in their hauling power. While this same marvelous doubling and tripling of the numerical amount of the equipment has been progressing steadily year after year, improvements just as constant and of results far more startling have been accomplished in its individual components. Blunt figures, while giving no fine details or suggestions as to the means and methods employed in this advance, probably indicate with the most startling convincingness its actual extent. A statement follows, in which the inferences to be deduced from the comparisons submitted are most palpable. Today any one of the hundreds of recent model freight engines are

capable of hauling up a grade of thirty-five feet to the mile a weight of 1,500 tons. Fifteen years ago the best locomotives built could handle but 700 tons up a similar grade.

Basils of Comparison.

These figures do not include the weight of the engines themselves, referring exclusively to that behind them, so they do not represent the actual hauling powers of the two styles of locomotives. The engines used for this calculation are neither of them compound. The one of fifteen years ago had four pairs of driving wheels, which were sixty-two inches in diameter. It carried a weight of 62,000 pounds on these drivers, and weighed 99,000 pounds over all. It was of the American type and bore the well-known diamond smoke-stack, which has not yet entirely disappeared from railroad equipment of this sort. The locomotive of today is a consolidation engine, with the same number of drivers, which are exactly the same size as those of the other monster, but it weighs 145,000 pounds on its drivers and 200,000 pounds over all. So this type is in reality pulling 1,500 tons up that hill instead of 1,500.

Simple, but absolute and accurate formulas, are used by the mechanical engineers of railroads to determine what weights their engines will handle. This weight is computed by dividing the tractive power of the locomotive by the resistance per ton of the train. To ascertain the former factor there is but one inviolable formula, tractive power being the same under all conditions. But with resistances grades must be taken into consideration, so there are two processes.

Computing Effective Force.

The resistance per ton of trains on level ground is universally attained by D. K. Clark's formula, which divides the velocity squared by a constant, 191.6, and adds another constant, 7.2. The result is the resistance. On grades the co-efficient of resistance is added to the natural sine of the angle of inclination of the grade and this sum is multiplied by 2,000 to give the power required to haul that number of pounds.

Of the four numerical factors which are used in computing the tractive powers of engines the locomotive of today differs from that of fifteen years ago in just two. The cylinder diameter squared multiplied by the mean effective boiler pressure in pounds, multiplied by the stroke of the piston in inches and divided by the diameter of the driving wheels in inches, gives this tractive power. The stroke and the diameter of the driver in the new engine are the same as in the old, but the cylinder diameter and the boiler pressure have been increased. With them also has of necessity increased the weight of the engine, in order to prevent its slipping under the enormous addition to the load. This adhesive power is an essential to hauling power and must increase with it. Nowadays from a quarter to a fifth of the entire weight on the drivers is calculated to be utilized for adhesion, the exact amount varying with different conditions of track and rolling stock. Today it is entirely the severity of the

grades to be encountered upon a run that determines the weight of a train that can be hauled over it by a given engine. Were there only level tracks to consider the power would be almost unlimited, for these new engines can, in sober truth, pull anything you can put behind them that will stay together. As long as couplings and trucking will stand the strain the engine can haul the load. Cars may be added at will, and the coupling will give way before the locomotive is stalled. A train cannot be built strong enough to be too heavy for an engine to pull over level trackage.

Some Sample Trains.

Proofs of this statement may be found in the fact that engines of the type which can haul 1,500 tons on a thirty-five-foot grade can and do pull 5,000 tons on the level. It is a fact that on prairie divisions of many railroads today trains of that enormous weight are being run. In Nebraska no longer than two weeks ago a train of eighty-five loaded cars was pulled from South Omaha to Grand Island by one of these engines. That train was 2,400 feet in length, which is two-thirds of a mile, and it weighed at a conservative estimate 3,500 tons. A few days since that time 100 empty freight cars were similarly hauled by another of these new model locomotives. This consisted of a string of cars which was not quite a mile in length, but the only reason more were not added was that there were no others on hand just then to go out. The engine could have hauled fifty more with ease, and 150 more if the couplings were in good condition. Trains a mile in length are not an impossibility, but an impracticability.

Speed a Great Factor.

It must be remembered, however, that this enormous hauling capacity of 1,500 tons is calculated upon a slow rate of speed. This item of velocity is one of the greatest importance in matters of motive power, as being a vital factor in the resistance of a train. The fact that the velocity is squared in the formula for ascertaining resistance makes even a slight increase in it of great importance and bearing on the hauling force of the engine, as the change in the resistance is correspondingly many times greater. So it is easier to haul one train at thirty miles an hour than another only half as heavy at forty miles.

In short, it is impossible to pull these enormous freight trains at high speed, and that point brings in issue one of the interesting features of the progress in railroading. This is the fact that the speed of freight trains has not been materially increased in the last fifteen years. Improvement in that department has been left to the passenger traffic. The great expense involved has been the item that has multiplied itself chiefly against any general adoption of fast freight service. It costs much more per ton mile to run them fast than slow, and each additional unit of speed costs more than the last. Finally, there are but two classes of freight that require fast runs, so the rest of it is taken at the gait that is best for the railroads. Livestock and perishable goods, which the cold or heat will affect, however, are run fast, and that is the reason why one never sees a very large train of either class of freight. In order to make that speed the weight must

be cut down. This makes the freighting very expensive, comparatively, and though the rates are higher, shipping this class of property is less remunerative than handling that which can be taken slowly and therefore in larger trainloads.

Weight and Proportions.

Though the freight engines have more than doubled in weight in the last fifteen years, their increase in proportions has not been correspondingly large. Contrary to the public belief, the huge driving wheel is not a recent affair. Forty years ago many eastern railroads had engines equipped with drivers as large as seventy-two inches in diameter, and that is still large today, being ten inches bigger than the size in general use on freight locomotives. In passenger engines, it is true, the type has undergone a considerable increase in dimensions, but this is for speed only.

It is freight cars that have really experienced the greatest development in actual size as well as carrying capacity. Fifteen years ago, when a yardmaster was calculating how long a train he could run onto a certain siding, he would allow twenty-eight feet for each car. Today he allows forty feet. That car of 1887 would, if it was unusually large, have been capable of accommodating twenty tons of lading. Now fifty-ton cars are common, while a large proportion of the new ones being put out are sixty-ton capacity.

Capacity of Freight Cars.

So marked is this increase in the carrying capacity of cars that it has attracted considerable attention from railroad authorities, and a strong sentiment is arising questioning the advisability of making this feature so important. With a large proportion of the freight traffic this capacity can never be utilized to the full. Grain, coal, stone, sand, ores and similar lading, it is true, can be loaded to the limit, but not so with fruit, furniture, shoes and hundreds of other articles, to be sent twenty tons of which in the cars there is not room. Such lading could be carried as well in cars of fifteen tons capacity as of fifty. It is not yet practicable to increase the size of box cars, so with all these commodities that occupy much room for little weight the cubic capacity of the car will continue to be the limit of lading, not the capacity in tons. On the whole, however, constant changes of lading would seem to argue the advisability of having all cars large enough to carry a full load of anything rather than so small that they could not accommodate forty or sixty tons of solid lading when desired.

Evolution in Construction.

The construction of freight cars has suffered great changes. Fifteen years ago they were all wood, box, trucking, everything save the very wheels and axles. Now they are practically all steel. On a box car only the box is wood, on a flat car only the floor. The underpinning is all steel. Coal cars are now steel throughout. It was found necessary to wire boards to the sides of these new cars in order to have a place on which to tack signs and destination cards. A discussion of passenger equipment has been omitted, and purposely so. Although great strides have been made in this de-

partment of the traffic as well, they have been chiefly toward speed and not with a view to increasing to any great extent the motive power. The passenger engines are the biggest and strongest built today, some of the recent ones weighing 300,000 pounds over all and having drivers eighty-four inches and a fraction in diameter. Yet the immense power resulting is devoted to velocity.

Weight of Passenger Engines.

Not a passenger engine on the road today has ever been taxed to its hauling power while in that branch of the service. There are very few instances during a year in which a passenger train of 1,000 tons weight is hauled behind a single engine. The average even in these days of massive coaches and long trains is about 600 tons. The cars themselves are heavy enough. The new sleeping cars weigh 110,000 pounds and the coaches and mail and baggage cars grade down to make the average on a train about 85,000 pounds. But just as with their engines, these cars are never taxed to their capacity. All passenger cars are built superlatively strong. If they ever get into them within a tenth of the weight they could stand it is unusual. Seventy people in a coach load, and that is a mere fly on the Ferris wheel to a modern passenger car.

Increased passenger speed has certainly increased greatly. Round-house gossip of short clips at a ninety-mile gait cover certain good bits of road are now common, and in fifteen years' time schedules between the east and west have been altered from coal recognition. Save time! That is the one cry, and as soon as there is any danger of a monster engine getting half a load behind it another is added to it, and all for time's sake.

PRATTLE OF THE YOUNGSTERS.

Mamma—Teacher tells me you were very naughty in school yesterday. Why did you not tell me yourself? Tommy—Why—er—you always told me not to tell tales out of school.

Bessie—Mamma's hands are so soft; they are velvet.

Billy—Well, when she caught us in the pantry this morning Tommy can tell you that her hands were felt.

Little Elsie—Papa, where have you been? Papa—To the barber shop, my dear.

Little Elsie—Oh, I know! You went to get the splinters pulled out of your face, didn't you, papa?

"Are you going to marry when you grow up?" asked a visitor of 5-year-old Bessie. "No," was the reply, "I'm going to be a widow, because they always have such pretty black clothes and look so happy."

"Come out of there, Johnny," said his mother, coaxingly, "and I'll give you a nice piece of angel cake." "Don't want any angel cake," came in a muffled voice from under the lounge. "It hasn't got any goo on it."

There is a man who fancies he is the head of the house. This particular man

has several small children, and it pleased him to discourse a great deal on the training of the young. A few days ago he had friends visiting him. His two little sons began to play about noisily. It is one of his theories that children should obey implicitly, and he wanted his friends to see how he carried it out in the training of his own family.

"Johnny," he said, sternly, "stop that noise instantly!"

Johnny looked up in surprise, then grinned a little.

"Oh, Freddy," he said to his brother as they went on with the noisy romp, "just listen to papa trying to talk like mamma."

Mamma—Willie! What's the baby crying for?

Willie—Oh, he's ungrateful; that's what he is.

Mamma—Ungrateful? Just showed him how to eat his cake and he don't appreciate it.

"Did your sister say how she liked the amateur minstrel last night?" asked DeJones of his best girl's small brother.

"Oh, she thought your part was good, all right enough," replied the youngster.

"Did she really?" queried the delighted DeJones. "What did she say?"

"I heard her tell mamma," replied the young hopeful, "that you made a holy show of yourself."

LABOR AND INDUSTRY.

Cincinnati is organizing a \$150,000 cooperative wagon factory.

Ohio has 25,000 working women. Their average weekly wages are \$4.83 and savings \$1.45.

The Broom Makers' union issues a round million of labels each month for union men's brooms.

Denver's Housemaids' union will establish a training school for housemaids. Working girls will be trained with literary and social features as an adjunct.

A bill to be presented in the Belgian chamber, proposed by the labor council, makes Sunday labor optional and a matter of free contract between parties employing and employed.

The Texas penitentiary board has decided to buy a 25,000-acre plantation and today is the greatest of landscape penitentiary boot sugar. This will remove all convict labor from any contract employment.

The announcement that a pension system will be established by the American Steel and Wire company for its workmen who by age or otherwise are incapacitated from earning the largest of an interesting phase of the corporate era.

John A. Brashear, who has just been elected chancellor of the University of Western Pennsylvania, was a rolling mill man in Pittsburgh twenty-five years ago and today is the greatest of landscape penitentiary boot sugar.

At the suggestion of Alfred Moseley of London and Lord Reay, president of University college, London, a special commission will be sent from England to this country to inquire into labor matters and the relations between masters and labor unions.

The Mexican government has ordered that all railway employees coming into contact with the public must be able to speak the Spanish language well enough to deal directly with the passengers. Pullman car employees will be principally affected.

The state railroad commissioners of Iowa will meet in Sioux City January 28 for

the purpose of condemning such property as the Flood valley as is desired by the Omaha road for the proposed shops and terminal grounds, which the company has been unable to secure by ordinary methods. It is the desire of the company to secure possession of the property and have the houses removed by March 1, when the work of making the improvements will begin.

David Ross, secretary of the Bureau of Labor Statistics of Illinois, has compiled the reports on the output of coal mines for the year 1901.

The report shows a marked increase of nearly 2,000,000 tons over the previous year. There has been a notable increase in the value of the product. The report shows that the average value of all grades of coal per ton at the mines last year was \$3.64, while the year before it was \$2.98. The average price paid per gross ton for hand mining last year was \$6.54, as against \$6.43 in the preceding year.

The increase in tonnage gave employment to 1,500 more miners and has increased the membership of the Illinois branch of the United Mine Workers by that number.

Why Be Fat

When There is a New Home Treatment that Quickly Reduces Weight to Normal Without Diet or Medicine and is Absolutely Safe.

A TRIAL PACKAGE FREE BY MAIL

Don't be too fat; don't puff and blow; don't endanger your life with a lot of excess fat, and, furthermore, don't ruin your stomach with a lot of useless drugs and patent medicines. Send your name and address to Prof. F. J. Kellogg, 29 W. Main St., Battle Creek, Mich., and he will send you a free trial package of his remarkable treatment that will reduce your weight to normal. Do not be afraid of evil consequences; the treatment is perfectly safe, is natural and scientific and gives such a degree of comfort as to astonish those who have panted and perspired under the weight of excess fat. It takes off the big stomach, gives the heart freedom, enables the lungs to expand naturally and you will feel a hundred times better the first day you try this wonderful home treatment.

Send your name and address for a free trial package, sent securely sealed in a plain wrapper with full directions how to use it, books and testimonials from hundreds who have been cured.

Send for the free trial package today. It will brighten the rest of your life.

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"77"

The city is full of Colds and Grip, everyone is coughing and sneezing. To avoid taking Cold, keep the feet dry and wear warm clothing.

A lighter shoe at night, a high-neck flannel set aside—just for once to wear an evening gown—are fraught with danger.

A change from a thick business suit to evening dress makes many a sore chest.

Going out of a superheated house, hall, church or theatre is a frequent cause.

Use care in your dress, avoid exposure, carry and take "Seventy-seven" ("77"). Dr. Humphreys' Famous Specific. It stops a Cold at the start and "breaks up" Colds that hang on.

GRIP