DESERET EVENING NEWS: SATURDAY, FEBRUARY 22, 1902.

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SCIENTIFIC MISCELLANY. As much at the greatest height reached. The influence of seasons at high alti-tudes is surprisingly great, and at 30,000 About sound we have much to learn. Describing some late trials of fog-horns, Lord Rayleigh stated that those having elliptical instead of circular cones best spread the sound horizontally when the long axis—which was four times the length of the shorter—was vertical. The anomaly of the slient zone, on both sides of which the sound Amorrow warnes warnes warnes warnes warnes is heard, is still a mystery. It has been thought to be due to interference It has Looking twenty or thirty years shead. between waves of sound reaching the spot direct and those reflected by the sea, but failure to recover the sound by climbing a tall mast throws doubt on the theory. One foghern at a station may be better than several, as two or

Machinery, concentration, and combina-tion of capital—the lines on which the industrial battle are to be fought— promise well. But there are difficulties ahead. Labor unions will increase, and the state regulations of labor will check private industry. In time, M. Levas-seur believes, wages must fail, and in their fail will come great conflicts be-tween capital and labor. His book has at once the merits and shortcomings of an outsider's investi-gations. He has collected many valuagains in rate instead of becoming slower as the altitude increases. The

feet the average March temperature is about 65 degrees below zero, while that of August is only 44 degrees below. The chemical destruction of weeds is. advocated by learned French horticul-

turists. One application of mineral oil and water keeps down the grass in walks for two years, sen salt kills this-tles, and a spray of sulphate of iron is effective against injurious plants of all kinds.

Porcelain violins and mandolins, shaped exactly like the wooden ones. are claimed to have greatly improved tones. Their weight and liability to breakage are disadvantages.

Moving pletures of the electric are have given lithmer, a German experi-menter, some interesting results. In the arc circuit were placed an inducthan was supposed, the average being about 13 degrees below zero F at 20.000 feet and 35 degrees below at 25.000 feet; and the decrease of temperature caused the image of the two carbons to fail upon the ground glass of the kinematograph. The moving photo-When the

are bissed the band became wavy, the | Brittleness of the cellulose, the 0seableliquid intercepter cut it into rectangles of varying lengths, and whistling caus-ed hundreds of vibrations to appear. ome difficulty, was overcome ning several threads together.

pressing

Carbolic acid as a dressing for wounds seems to be attended by risk little understood. Dr. J. G. Sheldon reports a recent amputation of the leg Before talking into the arc, the image was reduced by a lens to a fine point upon the film, which was moved ten feet a second. After the speech phomade necessary by spilling weak car-bolic solution on the foot, and a Mastograph was taken, the film was again passed through the camera box at the sachusetts physician some years ago found records of more than 100 cases name rate, and the picture was thrown by the arc upon a sensitive scientum cell. The varying brightness of the picture varied the electric resistance of the scientum, so affecting the cur-rent passing through it that two tele-phones in the circuit reproduced the space with surviving clastness. of gangrene due to free use of carbolle acid much diluted for slight wounds and bruises.

In his ten years of experiment at Parls and Lille, Dr. Calmette has made his antivenomous serum an effective

remedy for five hours; and it is now supplied to such countries as India, Australia and tropical South Ameri-Artificial hair has been a difficult ma-terial to make. Coconnut and agave fibers have been much used for stuffing ca, where the victims number tens of thousands yearly. The preparation of

this antidote requires the venom of many serpents, Cobras and others are kept alive in a special hothouse and

handy servents, coulds and others are kept alive in a special hothouse and once a fortnight the doctor and an as-sistant extract the venom from each by holding its head in the hands and com-

The snake, which seldom eats in captivity, is then forcibly fed by pouring two or three raw eggs

pouring two or three raw eggs through a glass funnel into the stofn-

by spin-

or dogs, and at the end of 16 months a horse is made capable of receiving safely a dose that would kill 200 un-vaccinated horses. From each horse may then be taken every two or three weeks from six to eight quarts of blood, containing two or three quarts of active serum. The serum is bottled of active serum. of active serum. The serum is bottled in single doses-about a third of an oùnce.

ach. The polson, dried for kepeing, is

used in solution for inoculating horses or dogs, and at the end of 16 months

Such quantities of shingle are being deposited by the sea at Dungeness, on the English channel, that in 60 years a lighthouse has been left half a mile in. land.

Billious Colle.

H. Seever, a carpenter and builder of Kenton, Tenn., when suffering intense-ly from an attack of billous colle, sent to a near by drug store for something to relieve him. The druggist sent him a bottle of Chamberlain's Colle, Cholera and Diarrhoea Remedy, three choiera and Diarriber Height, three doses of which effected a permanent cure. This is the only remedy that can be depended upon in the most se-vere cases of colic and choiera morbus, Most druggists know this and remend it when such a medicine is called for. For sale by all druggists.

the transatlantic toller. What are the secrets of the American tofler's triumph? From M. Levasseur's observations they may be described as his strenuousness, his power of initiative, his independence, and his high productive capacity. He is imbued with intense national selfconfidence. "We are the first nation of the globe," said one. "Without us Europe would be grovelling in the bar-barism of the middle ages."

America owes its amazing position in |

the industrial markets of the world as

much to the qualities of its workmen

as to the natural resources of its do-

minious, says the London Daily Mail.

The American mechanic by his in-

genuity, inventiveness, and industry

has placed himself atop of the world's

workers. This leads special value to

the study of American industrial life

writen by M. E. Levasseur, and is-

sued in English form by Mr. Fisher

Unwin under the title of "The Amer-

ican Workman." M. Levasseur is a

French student who spent some time

in the United States visiting industrial

centers to learn at first hand the act-

ual truth about the life and ways of

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THE AMERICAN WORKMAN.

His Secrets of Efficiency and Success.

HE IS A MACHINE MAN.

The American workman is the man with the machine. For many years the steady tendency has been to introduce machinery. Nothing is done by hand that machinery can do instead, and the automatic apparatus of today is ousted automatic apparatus of foday is ousted by a better tomorrow. Machines count up the ledgers or record the output of other machines. The fact that a plant has been in use for a short time is thought good reason for removing it. At Minneapolis the author visited a sawmill, where the great trunks of trees were picked up out of the water as though they were match sticks, trim-med, sawn up, and automatically piled up on land. He expressed his admir-ation, but his guide dismissed the work as nothing. "This system is two years old," he said. "I regret that I am un-able to show you one of our newer mills. They are not running tonight. They will soon have to be reconstructed.'

Along with improved machinery has come an enormously increased output with less labor. M. Levasseur gives nome striking instances of this. The pin trade supplies one. When Adam Smith wrote his book which forms the foun-dation of modern economics, he showed that with the machinery then existing one man could make 4,800 ,pins a day. Today one man makes a million and a half. A pound of pins then cost a guinea for manufacture; now it costs about a shilling.

One manufactory of machinery that formerly needed 2,145 men now does the same work with 600 workmen. Machinery dispenses with about 70 per cent of human labor in shoemaking as against the old machines, while a man with modern plant finished 300 pairs of shoes in the time it would have required to finish five by hand.

AUTOMATIC PLANT EVERY-WHERE.

These illustrations might be multiplied indefinitely. American factories use automatic plant to an extent which even in this country is unknown; and the men employed have to work much harder. The rate of labor is such as surprises those accustomed to slower castern ways. In the well-organized factory there is no talking during working hours, save on business. The weak and incapable go to the wall, while the ablebodied are well reward-ed. M. Levasseur might illustrate his story by the instance of a wellknown watch factory. The chief there one day noticed a girl worker pausing for a minute over her machine to recurl her fringe. He inquired and found that in the hot air of the factory fringes got out of curl, and the girls often quickly twisted them up. Thereupon he issued an edict that the women workers should come with their hair brush-ed straight, and what is more, he got his order obeyed. The extra exertion is by no means always willingly given. "The manufac-turers work the men like horses or slaves," one grumbled. "They pay you well here, but yiu have to work hard," said an immigrant, Before an indus-trial commission one man complained that the American bricklayer was much worse off than the English, because, though he was paid more, he had to lay 500 bricks a day more.



MAGNIFICENT DISPLAY OF

spring colorings, per 50C yard new goods and a complete as-38-inch all wool Albatross, cream, black and all desirable colors, 38 inch Granite Cloths in the new pretty spring 65c

olors.

Our Superior Silk Stock.

THE POPULARITY OF OUR SILK DEPARTMENT AND THE GRATIFYING RESPONSE OF THE PUBLIC TO OUR PERSISTENT EFFORTS TO SELL THE BEST GRADES OF SILKS ONLY AT THE LOWEST POSSIBLE PRICES, HAS ENCOURAGED US TO PRESENT THIS SPRING THE GRANDEST COLLECTION EVER EXHIBITED IN THE HISTORY OF THIS STORE.

EVERYTHING IS STRICTLY UP TO DATE THIS SEASON AND INCLUDES THE RICHEST PRINTED FOULARDS, ALL NEW DE-SIGNS, PEAU DE SOIES. FRENCH TAFETAS, PRINTED WARP NOVELTIES, COLORED CREPE DU CHFNE, EMBROIDERED PON-GEES, THE CELEBRATED COHN'S GUARANTEED TAFFETAS, NEW WASH FABRICS. ALL PRETTY AS PICTURES ZEPHYR AND CORDED GINGHAMS, come in all new new colorings, and plain colors, plaids, check and stripes, making an immense variety to select from at per yard... $12\frac{1}{2}c$ 33-INCH MADRAS CLOTH an excellent waist fabric 15c

FASHIONABLE THINGS IN

20c

25c

30c

65c

for ladies and boys, also very desirable for men's shirts, an immense assortment to choose from at per yard

NEW CORDED. MANCHESTER CHAMBRAYS, a new effect this season in the staple chambrays, will be highly popular for waists and summer dresses, all colors, represented and the price only per yard

SCOTCH ZEPHYR GINGHAMS in all sizes of checks and plaids, MERCERIZED GINGHAMS in the stripes and plain colors, nothing better than these for ladies' and childdren's wear per yard

SHEER CORDED TISSUES, the goods that will be

GAUZE FRENCH MUSLIN in beautiful color combina-

New Line of Embroideries.

dainty new petilcoat and muslin underwear trimmings, fresh, orisp, new importations, widths from 4 to 10 inches at, per yard-

 $7\frac{1}{2}$ c, 10c, 15c and 20c.

GREAT CLEARANCE

OF RUMPLED AND SLICHTLY SOILED

250 pieces of fine white cambric and nainsook edges and insertions,

scarce later in the season, everything desirable in colors,

per yard

tions, representing a wide range of newest printings, a rich sheer summer fabric only, per yard

Gradually day by day for the past two months shipments of dainty, new, Imported and Domestic Spring and Summer Fabrics have been arriving until today we are prepared to display vast assortments and styles never before equalled in Salt Lake A PERFECT TRIUMPH OF WORTHY GOODS

 \equiv Now Permeates Every Nook and Corner of This Store. \equiv

speech with surprising clearness.

furniture and chemical treatment is

claimed to make them impervious to wet, odoriess, einstic, unfeitable tand unbreakable. But their short length limits their use in fabrics. The suc-

cess of silk from cellulose has led some

manufacturers at Frankfort-on-the-Main to make further trials with the

same substance, and they seem to have

produced not only a very satisfactory

imitation horsehair but a very good

substitute for human hair for wigs.

See the tinge of newness and snap in every piece of Dress Goods displayed. See the attractive individuality and vim in our Wash Fabrics. See the dainty styles and becoming dash to our New Tailormade Gowns, and you needn't hold your breath when you ask the price. We have never before quoted prices so irrisistibly low as we are able to quote this season.

The Gentle Breath Spring

ble facts, but he often fails to get in touch with the inner life of the people describes. Yet at this time, when the American workman's wares are domin-ating our markets, the French author's work well deserves consideration.

the poison glands. e, which seldom eats

fall of 3 degrees for each 1,000 feet in graphic film recorded the steady arc as the lower strata becomes nearly twice a briefs, continuous band. When the

M. Levesseur believes in the continued triumph of the American workman. Machinery, concentration, and combinamore sounds may tend to neutralize one another, Air soundings of the last few years have given very unexpected tempera-ture results. The upper air is colder

HIGH WAGES AND LOW PRICES.

It is this fact which explains how, while paying higher wages than their rivals, the American manufacturers can undersell them. Thus the nallmaker of the English "back country" works, ac-cording to M. Levasseur, a fourteenhour day, earns 2s., and turns out 2cwt, the Pittsburg man works a day of ten hours, earns a guinea, and turns out two tons and a half. But the author's figures on this point are not borne out, it is fair to say, by the official returns of

It is fair to say, by the official returns of either England or America. M. Levasseur was much impressed by the orderliness and excellence of the conditions of work. The silence in the factories seemed to him specially strange. In many works he found baths and tollet momes for the men. In one and tollet rooms for the men. In one there was a locker for each man in which to keep his outdoor clothes while working, and the inserting of the key in the lock of a machine automatically registered the hour of the man's arrival. In some works men who use obscene or profane language, or who quarrel and fight, are inmediately discharged. Disclutions is statistically discharged. Biological and the information of the second second

The author investigated with special chre the every-day life of the mechan-ics. Statistics show that the nominal wages of the American workman are much higher than those of his competi-But wages, after all, only represent their actual purchasing power, and M. Levasseur set himself to find if the American toiler really lives better than others

WORKMEN WITH CARRIAGES.

He found that he does. He lives dresses and indulges in luxuries which surprised the French critic. It is very common in the west, and not rare in the cast. M. Levasseur states, for workmen to keep their own carriages. by carriages he means, not the br ham of rich city livers, but the litt trap or buggy familiar in the countr They travel much for pleasure, an largely go in for social meetings. Th prominence of religion in their lives an the amount they contribute to religiou organizations somewhat surprised writer. But, strangely enough, he fails to emphasize this important point: In social life the American workman is abstema s, and his temperance is one of the abet factors in his prosperity. The workman's wife is not overbur-dened with household duties. She reads

a good deal, and it is not an unheard of event for her to take lessons in French, drawing, or music As a rule, the American workman gives his wife about S25s. a week to keep house on, and perhaps \$s. or 12s. a week more for her own personal expenses. The standard of living is high. The life of the Amer-ican workman is broad, and his comforts are more numerous than those of bis European rivals.

42and 46 inch pure all wool Granite cloths, Nun's Veilings, Twine Cloths and Wool Grenadines, an unequaled line of these and popular Black Dress 1.00 materials, special per 1.00 yard, only

38-inch

54-inch Heavy Storm Serges Venetian Serges, Armure Cloths and all the heavy popu-lar suit and skirt weaves 1.35 per yard per yard

A rare display of Sole Eollenne, Mistral Etamines, Lace Striped Grenadines and other handsome silk and wool mixtures, consti-Spring Black Dress Textiles at, per 1.50 tuting the perfection

at, per yard 40-Inch all wool French Batistes elegant street and evening shades. 46-inch pure wool Arfabrics in newest shades. These fabrics are worth up to \$1.35 per yard. This week's **C1** AA \$1.00 only A new shipment of our well known Venetian serges, already

Special value

shrunk and sponged ready for use, 52 inches wide, come in black and all staple colorings, sold everywhere for \$1.75 per yard, our special price 1.35 Skirting cloths, 54 inches wide in Oxford grays, new grays, brown, wine and navy, at per

yard-\$1.00 and up

HANDSOME NOVELTIES IN NEW SPRING GARMENTS.

A SPLENDID OPPORTUNITY MONDAY FOR EARLY BUYERS OF SUITS AND SKIRTS, AN EXTENSIVE SHOWING OF THE NEWEST STYLES, ALL LOW PRICED TO HURRY THE SPRING SELLING.

Taffeta and Peau de Soie Silk Dress Skirts.

SPECIAL SALE AT \$14.00 OF HANDSOME SILK SKIRTS, A decided sensation in new embroidered striped taffeta silk dress skirt, lined with nearsilk with full silk pleating at foot. This skirt has 8 rows of wide quilled 14.00 satin ribbon on flaring flounce of Brussels net for.

Also. An exceptional value in Peau de Sole Dress Skirts lined with nearsilk made with 2 acordeon pleated ruffles or liberty satin on graduated flounce, each ruffle edged with ribbon ruching, \$20.00 value for successful the second sec High grade silk skirts in Taffeta, Peau de Sole, tucked and Also.

trimmed for

\$16.50, \$18.00, \$25.00 and \$35.00

Latest Models in Spring Suits.

A SPECIAL ADVANCE SHOWING OF FASHION'S LATEST FANCIES. NEW SPRING SUIT FOR \$12.95.

Made of mixed covert Venetian in all desirable shades, castor, grey Oxford and blue. Double breasted Eton Jacket, little skirt effect on hips, Taffeta lined, stitched yoke effect front and back, cuffs.

Skirt: Nearsilk lined, graduated flounce and stitching 12,95

NEW SPRING SUIT FOR \$15.75.

Made of all wool Venetian, Black, Blue, Royal, Red and Castor, Regular double breasted Eton Jacket, taffeta lined, trimmed with six rows of satin straps, headed on each side with 3 fleur-de-lis designs of

satin straps and 3 rows of satin straps on cuffs, Skirt. Nearsillk lined, full flare, trimmed with 4 rows Skirt. Nearstilk lined, full flare, triumed with 4 rows 15.75 of satin straps all around and ornamented with 3 fleur-de-lis 15.75

designs of satin straps

NEW SPRING SUIT FOR \$18.00.

We are showing a new Eton Suit made up of all wool American Venetian, colors, castor, brown, navy and red. New shawl collar, stitched and trimmed with black taffeta, edged with piping. Jacket Taffeta slik lined, and trimmed with stitched straps of cloth and black taffeta piping.

The skirt is in the new flare effect, with inverted pleat back, bottom trimmed with diagonal bands of taffeta and straps of cloth edged with piping to match jacket.....



EVERY DAY BRINGS FORTH NEW MODES. As a special offer for this week we have placed on sale beautiful Peau de Sole waists in black and all colors, all sizes, and some beautifully hemstitched and cluster tucked. Regular price \$5.75 for one week they go at..... 4.45 Another late novelty is the Gibson Waist, broad shoul-der effect in black or white moire, with fitted linings, all sizes, offered as a special spring leader for this week at... 6.95

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PRINTED AND EMBROIDERED SILK BATISTES AND THE HAND-SOMEST LINE OF SILK GRENADINES IMPORTED TO THIS COUN-TRY





New Arrivals Imported Wool Challies.

Hundreds of yards of dainty new all wool challies have been added to our already exquisite assortment, making the grandest collection of richest color combinations and rare printing effects ever displayed in these popular imported fabrics.

They come in Oriental, floral, Persian, scroll and other fancy designs, rings, dots, stripes, etc., also satin striped in either plain or tucked effects, and many other new novelty designs. THE PRICES BEGIN AT

45c and up to 90c per yard.

FANCY WHITE GOODS.

This is going to be an unusual white goods season. Indications point that way from the high grade white Cheviot Tailor Made Gowns, to the simple lawn frocks, and our collection of fancy white fabrics is by far the prettiest ever seen here.

Mercerized white Madras Cloth in fancy floral and striped designs, also fancy white canvas weaves a selection of 20 dif-ferent patterns, all beauties per yard..... 45C

Fancy white piques, fine warps, all refreshingsly attractive designs, come in striped, dotted and lace effects, will be one of the season's popular materials, per yard only..... 450

Fine mercerized white poplins, a beautiful rich summer dress fabric, nothing more attractive in the entire range of white goods, per yard.....

week you can get:

A \$3.50 PETTICOAT \$1.90

A \$4.00 PETTICOAT \$2.20

A \$4.50 PETTICOAT \$2.75





1902 Muslin Underwear ING ALL THIS SEASON'S GOODS THAT SHOW MARKS OF HANDLING OR SOILED FROM BEING DISPLAYED ON OUR COUNTERS AND IN OUR WINDOWS DURING OUR GREAT SALE, TOGETHER WITH A CHOICE LOT OF MANUFACTURERS' SAM-PLES, ALL OFFERED AT CROWD.DRAWING PRICES. A RARE AND UNEQUALED CHANCE TO LAY IN YOUR SUM-MER'S SUPPLY AWAY UNDER PRICE. IN THIS GRAND AS-SORTMENT WILL BE FOUND, Corset Covers. Petticoats.

Made plain tight front. French cut, full front, valenciennes lace trimmed, French

walsts, embroidered full French cut with solid embroidery yokes and dainty hemstitched tucks, etc., etc.

Drawers.

of good muslin with cambric ruffles, umbrella drawers with deep embroidered ruffles also lawn ruffles trimmed with torchon lace and insertion or lawn ruffles trimmed with hemstitched tucks and embroidery, etc., etc.

Chemise.

of good quality muslin, neck finished with hemstitched lawn ruffles solid embroidery yokes, neck and arms finished with dainty Hamburg edging, skirt length chemise of fine cambric, neck and arms trimmed with 3 inch valenciennes lace and 6 inch lace and ruffle on bottom, etc. etc.

Gowns.

made with tucked mother-hubbard yoke, neck and sleeves finished with cambric ruffles, good muslin gowns, hubbard yoke, trimmed with tucks and insertion, fine cambric gowns, square neck, front and back trimmed with dainty hemstitched tucks and wash ribbons and many other pretty styles.



for only

with 8-inch umbreila flounce trimmed with embroidery and

hemstitching some with 18-inch umbrella ruffles and 2 clusters of

dainty hemstliched tucks or 12-inch umbrella flounce with clus-ter of 6 tucks and pretty Ham-

burg embroidery. Fine cambric skirts with deep lawn umbrella ruffles and cluster of 6 tucks with