has caused the downfall of many a well-laid agricultural scheme and made the sun-kissed Territory notorious, is one of

its great merits as a health resort, says ten the New York Sun.

It is a generally accepted theory nowadays that the white plague is to be all stamped out only by the segregation of its on. victin's and an absolutely out-of-door life for them. The first condition is manifestly impossible in the crowded city and the second is feasible only where mother nature is most beneficent, where the sun never goes into hiding for months at a time, where the breezes are not too wanton and where the night air is as dry and free

and where the night air is as dry and free and where the night air is as dry and free from vapors as the day.

All these conditions for the absolute cure or the amelioration of consumption are to be found at their best in the Southwest, particularly in the Sait River Valley, Ariz. Within its area of 500,000 acres, fruitful as the Garden of the Gods, so soon as irrigation is applied, there are miles of desert where the climatic conditions for the relief of all pulmonary troubles are perhaps unexcelled in this country or abroad. Here the transition of the seasons—and there are but two, four months of summer and the rest of the year a perpetual spring—is slow and gradual. The petual spring—is slow and gradual. The skies are a cloudless blue, the air so sweet that it can almost be tasted, and the average humidity so low as to be inconceivable to the sweltering resident of the coast and lake regions. For December and January the mocking-bird warbles his clear-throated epithalam-

ium to his brown mate in the cotton-woods—the full orchestra of red-winged blackbirds follows the lead of its sable precentor who sits up on a pepper bough and conducts his followers through a chorus of Wagnerian melody, the shirt-waist girl swings in her hammock as com-fortably as in an Eastern June, and the small boy beats the sides of his burro or Indian pony with bare brown feet. Pic-nies are the order of the day. In Febru-ary the almond orchards, which rim the desert's northern edge, burst into a mass of pink white bloom, the pomegranates are budded and the blossoming orange groves send forth their fragrance for miles

In the colder lands the invalid would be of every draught. Here he spends his days and often his nights in the open, the starry heavens his canopy. The nights throughout the winer are cool, sometimes cold. There was one week last January when ice formed in the water bucket in the tent, and a hot stone for the feet, night caps and bed socks were more than welcome. Blankets are a necessity all the winter. Yet with the rising of the sun genial spring again again. spring again asserts itself. difference of temperature between and day is possibly the one exception to perfect climatic conditions. Forewarned, however, is forearmed, and with plenty of

however, is forearmed, and with pienty or bedding and warm night garments there is no danger of taking cold. It is a strange thing about this desert life, that it has a charm which grows with equaintance—and one who has spent som line in the desert is said to be never quit happy elsewhere. The summers are hot. There need be no reservations about that statement. For days last July the thermometer registered anywhere from 99 degree to the statement. ree to 117 degrees right along-but the bsence of humidity made the heat much easier to hear than the close, muggy de-vitalized air of New York and Brooklyn. There were no sunstrokes, no heat pros-trations. Ranchers went about their work

affering no inconvenience.

Although the majority of health-seeker Although the majority of health-seekers turn their faces to the seacoast of Southern California or the pines of Prescott for midsummer days those who brave the heat and remain are said to derive the greatest benefit at this season. The intense heat seems to heal the lung tissue and destroys the germs. Sufferers from kidney trouble or rheumatism also make their greatest gain in summer.

or rheumatism also make their greatest gain in summer.

While nearly every ranch in the valley stands ready, for a consideration, to open its doors to the invalid, the best results are to be attained from tenting on the desert itself. The ranches must be irrigated at stated intervals. The desert, no man's land, is dryness itself.

Although the camper, assured of squatter sovereignty, may set up his campage.

Although the camper, assured of squatter sovereignty, may set up his canvas establishment where he will, the quastion of a convenient water supply leads him to select a site near a ranch. A quarter will pay for a barrelful of wash water hauled each week on a stone boat from the irrigation ditch, while two bits more will keep the swinging olla, or Mexican water jar, filled and provide water for cooking from some adjacent, well. Other supplies are also readily obtained. The Indians bring in from the reservations wagon loads of mesquite and iron wood, which they retail in from the reservations wagon loads of mesquite and from wood, which they retail for \$1.75 or \$2. a load, while the same amount will buy dry almond, fig and apricot wood from the orchards which have died for lack of water. Faggoting parties are also popular, and he who will can gather for himself the flotsam and jetsam of the desert.

Fruits may be obtained at the orange groves and adjacent orchards at a reasonable price and of delicious quality. The roll-call of native fruits includes oranges, grape fruit, lemons, apricots, peaches, pears, pomegramates, figs, grapes, nectarines, plums, berries and melons galore, Rich Jersey milk may be obtained at the ranches for five cents a quart, butter for twenty-five cents a pound, honey-delicious as the famed honey of Hymettls-fifteen cents a pound. Ice, artificial, can be obtained at any of the towns at sixty cents a hundred. The markets of Phoenix supply the best beef and mutton in the world at live and let live prices. Groceries are high, owing to the freight rates, but the stores would be a credit to any city of New York State outside the metropolis. An accurate account of living expenses kept during the last vess felicious prices of the contractions. Fruits may be obtained at the orange An accurate account of living expenses kept during the last year for a family of

kept during the last year for a family of three adults and a child showed an average of \$10 a month for table expenses, \$6 for water, service and laundry; oil and tepairs, \$2 35, and fuel, \$3 50.

While the table expenses seem disproportionately high, it must be borne in mind that hyper-feeding and the generous provision of the most nourishing meats and foods are a large factor in the recovery of the consumptive. For the person addicted the consumptive. For the person addicted to the use of ham, bacon and canned goods the outlay would be materially diminished. Tents may be rented for from \$3 to \$7 a month, according to (urnishing-but the majority of campers prefer to own their canvas homes. These can be bought in any of the larger towns, new or second-hand. They are all put up with siding and board floors, and are usually screened from the intrusive fly—and also furnished with a fly or second cover. The stage settings and furnishings may be as luxurious or as simple as individual taste and the pocketsimple as individual taste and the pocket-book demand. A stove, two or three chairs, a dresser or makeshift—and one learns to be an expert in the matter of makeshifts on the desert or frontier—a bowl, pitcher and pall of tin, agate or paper—these are the necessaries, Luxurier in the way of rugs, hammecks, book shelves and pillows, pillows, pillows may be added ad lib. When

ARIZONA AS A HEALTH RESORT.

fit. Nor is this an extravagance, for horse-flesh and pasturage are both cheap, and the whole establishment can usually be sold at cost when there is no longer necessity for their use. A good solid mountain pony which was a delight under the saddle and a family friend in front of the two-gated "Democrat," with harness, whip and all complete, cost the writer a trifle less than \$50 and was sold at the end of the year for \$47. Pesturage on an adjacent ranch cost \$1 50 during the winter, \$1 in the summer.

Neither barns nor sheds are a necessity for the horse, but a brush shed or Indian

Neither barns nor sheds are a necessity for the horse, but a brush shed or Indian yataw is an all-important adjunct to the tents if one would be comfortable. Under its kindly shade the hammock is swung, the table set, the water jar hung, nearly all the operations of daily living carried on. These vataws are copled after the Indians. They are made of stout cottonwood poles, covered with brush and leaves held in place by the all-pervasive balling wire, which plays such a beneficent part in all in place by the all-pervasive balling wire, which plays such a beneficent part in all the operations and vicissitudes of Arizona

Mfe.

The question is often asked: Is not the desert life monotonous? To this the answer is: That depends, To one who loves the procession of the seasons, the rugged mountains, the purple buttes, the bending sky and the all-pervading sense of infinite freedom, a life so near to nature is fraught with tremendous benefit, spiritual and material.

For the rider of hobbles—and a hobby is a good thing to take an invalid's mind off his ills—there is an endless variety of subjects. The myriad mounds left by the pre-historic peoples invite to archaeological research, with the certainty of finds of the old Aztec pottery—if nothing more. For the hotanist, geologist, mineralogist, ornithologist and entomologist there is material rich and rare. For the ethnologist there are the Indians and Mexicans, to say nothing of stray representatives of every nation that on the earth doth dwell.

For the artist and the photographer there are skies and lights and shadows and subjects to be found nowhere else. For the sportsman there is small game a plenty-and for the one who simply wants to rest and let the world go by—a peace unspeak-

able.

It goes without saying that no one should take up the desert life 'f in a physical condition that demands the attendance of a doctor, or a hurry call upon the druggist. For such the, town. Neither should one come hither without money, thinking he can soon earn a living. There is no light work for invalids. Grown strong or at least familiar with the lay of the land, there are various occupations that may be taken up. 'f one can command the capital. Chicken raising, bee culture. the capital. Chicken raising, bee culture, vegetable and alfalfa growing—melon raising or a stock farm—will each furnish a good living.

This, however, comes later—and there

This, however, comes later—and there must be means to live on in the interim. If possible, every invalid should have some member of his own family with him. While scores of men and occasionally a woman come alone, the chances of recovery are much greater when there is no danger of homesickness. All these conditions met with a two-years' systems in tions met with, a two-years' residence in tents on the desert has demonstrated the fact that almost without exception there is marked gain and often complete cure. In cases in which the cure has been begun in time many have been able to return to their homes entirely well. Others, apparently recovered, have deemed it wiser to cast their fortunes with the Territory, and have given permanent setting to their lares and penates. Three only, out of one colony of one hundred who had come for their health, returned home to die. With this showing the desert tent life for consumptives seems to need no further commendation to prove its efficacy.

A LUCKY BOOK AGENT.

Ho Meets with a Warm Reception as the Result of Mistaken Identity. There is a farmer living just north of

Evansion and a book agent somewhere in the cosmopolitan desert of Chicago, each of whom feels that he is the victim of a cruel circumstance, says the Chicago Chroniele.

Chronicle.

Last week the farmer had a note from a nephew to say that the boy would visit the farm on Thursday. Uncle and nephew had not met for fifteen years, and the old man drove to the station in his most comfortable coat, that he might welcome his sister's only child. But the young man failed to come. After waiting until the last passenger had disappeared the old man drove away, disappointed.

The book agent entered into the drama-The book agent entered into the dramatis personae early the next morning. Looking over the top rail of the barnyard gate he called, "Hello, uncle."

The book agent never got such a reception before in all his life. The farmer flung the gate wide open, selzed the agent's hand, and pressed a whiskered kiss on the ironciad cheek. flung the gate wide open, agent's hand, and pressed a whiskered agent hand, and pressed a whiskered agent hand, and pressed a whiskered agent, following the farmer into the house and explaining that overybody at home was as well as could be expected. Not till the agent was full of a bolled dinner and attempting to sell a book did the farmer begin to see a dim light. Charged with Impersonating the missing nephew, the agent explained that he greeted all elderly strangers as "uncle;" that he even had a few almost real ones in South Clark street in Chicago.

Chicago.

was still running, and when the real nephew does come he may find an electric current in the latch-string.

WHEAT IN KANSAS.

Thousands of Bushels Piled on the Oper

Sod Waiting for Transportation. For the first time in its history, say: Leslie's Weekly Kansas has more Leslie's Weekly, Kansas has more wheat than it knows what to do with. Not only are the granaries and bins running over with grain, but the elevators are filled and the farmers are still bringing it to market by hundreds of thousands of bushels. The long dry weather was, in a sense, a bonanza for wheat raisers. Much of the grain was so heavy that it fell to the ground and would have been lost had there been wet weather. But with the long hot, clear days every straw could be gathered, most of the farmers running the threshing machines that the field and hauling the grain from the shocks to the machine. The grain has all been of the best quality and the yield from twenty to thirty-live bushels per acre. Not less than 80,000,000 bushels will be gathered, and the high price is giving the farmers a fine income.

As the strings of wagons came to market in the wheat belt the railroads were swamped. They could not furnish cars and the elevators were soon filled to overflowing. Even in the small stations twenty to thirty teams were waiting to be unloaded all day through the later part of the threshing. The buyers finally began piling the grain on the prairle. (Freat heaps of 39,000 to 50,000 bushels have been stored on the open sod and there they will remain until such time as cars can be secured in which to ship the grain. The sun does not hurt it, no one can steal it and so little rain falls during the summer that there is practically no danger from that source. than It knows what to do with. Not only

which to ship the grain. The sun does no hurt R, no one can steal it and so little rain falls during the summer that ther is practically no danger from that source Some enterprising buyers have secure circus tents and placed them over the piles making curious features of the prairi landscape.

The Boston Transcript (Rep) points out that the demand for the ship subsidy scheme does not proceed from the alleged reheme does not proceed from the allege beneficiaries theory. "Subsidy or no sub sidy, the ship building interests of the country do not appear to be in a languish-ing condition," remarks the Transcript, The law of supply and demand does cease its operations to await legislation, and just now the ship builders do not seem pillows, pillows may be added ad lib. When light housekeeping is carried on—and this is the general scheme—cooking utensils, dishes, a screen cupboard and an icebox must be added to the list.

A horse and some sort of cart or wagon are esteemed essential parts of one's out-

STYLES IN MEN'S DRESS.

FASHIONS THAT WILL RE POPU. LARTHIS FALL AND WINTER. Sombre Colorings and Neat Effects-Day

and Evening Skirts-Wrinkles in Col-lars-Very Few Changes from Last

(From the Haberdasher.)

(From the Haberdasher.)

The coming autumn and winter season will differ but little in the sartorial sense from that of last year. The changes have been very few, and in the main represent some slight modification of or departure from standards that have become very familiar. Men's dress is being held down to very conventional lines. The run of color that was the distinguishing feature of last year is to be curtailed and color will not be prominent in anything that man wears. Sombre tones in overcoatings and suitings and very neat color effects in

will not be prominent in anything that man wears. Sombre tones in overcoatings and suitings and very neat color effects in cravatings and shirtings will form the most prominent and distinguishing feature in the mode of the coming season.

I have observed in looking over the new goods for autumn that all that is called new, paradoxical though it may seem, is really old. This is the modern tendency in all things related eyen in the slightest dedegree to art. The painters are drawing on the old schools for inspirations, designers are reveiling in the art of the seventeenth century, house decorators are copying old interiors and furniture and the ar-ohitects are drawing inspirations from the ohitects are drawing inspirations from the Greek and Roman schools. In dress we are modifying or changing fashions that have been in vogue before. The culross, the wing collar, the skirted greatcoats and the new narrow-tip shoes are mere revi-vals of old-time favorites.

STYLES IN SHIRTS.

In shirts I look for very few changes and practically no innovations. For dress the plain linen bosom shirt, with slightly rounded or square link cuffs attached, will be the best form. The bosoms will be as wide as the chest of the wearer admits. The stitching will be of moderate width. Some of the dress shirts will have very fine ribbed plaue bosoms, but 1 do not think that this style will be as generally second as the style will be as generally accepted as the plain bosom. There will be three stud holes in the bosoms, two of which will show in the waistcoat opening. The shirt for wear with the evening jacket will be the same as that worn with the symplectic state. jacket will be the same as that worn with the swallowtail coat. Some shirt makers show a fine pleated shirt for wear with the jacket, and no doubt it will be quite pop-ular with the younger set. The colored shirts for day wear show with plain bosoms and the patterns are noticeably neat. The figures are printed on mado-ulans or a saith proches or reveales. plans or on satin broches or percales. The former fabrics are given more attention in the finer shops than percales are. The figures are neat geometricals in black, dark blue, reds or lavender; stripes are also displayed. They are narrow and widely spaced. also displayed. They are narrow and widely spaced. Pleated colored shirts will figure quite

Pleated colored shirts will figure quite prominently for wear with business suits. The plain neglige with a centre pleat and made of madras or of fine fiannels will also be worn. The fiannels are designed for neglige and come, in rather neat stripes.

COLLARS AND CRAVATS.

In collars the three new styles are the wing, poke and straight stander. These are in both wide and narrow stitching. The wide stitched wing collar is not as sightly as that with narrow stitching, owing to the liability of the edge, where the wing bends, to swell and gap. The wing collars have well balanced, molerate spaced wings, the bottom of the wings forming a straight line.
In cravats all of the forms are large.

The culrosses will be very broad and soft, the ascots wide of end and free of lining. The best four-in-hand will have a wide end and be graduated to a two-inch width at the knot. Tles, if sold at all, will be of the batswing shape. For evening wear there is a new tie. It is cut perfectly straight and has square ends. It is of uniform width throughout. When tied it shows a square, flat centreplece and the ends stand out straight and come to the

edge of the shirt bosom.

In clothes I find indications which point to the usual fight of the tailors to force new fashions. In the first place, we will have the annual cry for color in evening dress and for the freedom from blacks and whites in day dress. All of tals I do not think will amount to much. The best tailors are making trousers rather wide, but avoiding the peg-top form. The trous-ers are about seventeen and one-half inches at the knee and fifteen and oneinches at the knee and lifteen and one-half at the bottoms. They will hang per-fectly straight from the hips. For even-ing dress the white wais coat will be given a very prominent place. These will be made both single and double-breasted and

banished entirely from the wardrobe of a gentleman. A new coat something like the evening jacket will be made. It will have a breast and side pockets and silk-faced shawl collar and will close with two buttons. These coats are designed for home and club wear and are worn with single-breasted walstcoats and trousers of the same material, white shirts, black ties and atther loss. either lace or button shoes. They're just handy dress coats to wear down to dinner or to hang around the house or club in.

NOVELTIES IN DRESS

One of the best tailors on the avenue will introduce several novelties this com-ing autumn. One of these is an evening suit made of dark gray cloth. The collar suit made of dark gray cloth. The collar is of the shawl pattern, faced with gray silk. The trousers and waistcoat are made of the same material as the coat. The suits are designed for wear at stag affairs, about hotels and clubs and for the theatre when women are not to be in the party. Another new idea is a house suit. It will be made of a heavy rep silk and lined with silk. The colors are very brilliant. The trousers are made like pajama trousers and fasten about the waist with a broad bit of ribbon, with large silk tassels.

ers and fasten about the waist with a broad bit of ribbon, with large silk tassels at the ends. The coat is cut double-breasted and has large pockets. The suit may be worn with a slik shirt. It is just for wear in one's room.

In overcoats the long Chesterfields and the skirted coats will be very regular.

In overcoats the long Chesterfields and the skirted coats will be very popular. The skirted coat will be worn in the evening as well as during the day. These are cut like the "Paddock" and have well flared skirts. The "Raglan" will only be in rainproofs and in coverts. The covert coat will be very popular. It will be cut full and quite short

ind quite short. Sack suits will be made on lines that, while conforming to the lines of the body do not accentuate them. The military jacket is passe. The new jackets will be loose and will have perfectly straight backs. shoes the principal departure is in the

shape of the toe. The latest model snows the flat last with the outswing sole, but the tip is brought in to a much narrower the tip is brought in to a milet harrower roint than last year's model. Low shoes will be worn during the autumn and on pleasant days during the winter, but many upon the low shoe as a mere winter. The patent leather shoes with kid will be the formal footwear. Shoes will be very plain for dress, and quite elaborately trimmed for neglige and busiOUR TECHNICAL BONGGLS.

They Furnish the Best Bridge Builders Tool Makers and Rallway Constructors in the World-European Methods Have been Adapted Rather than Adopted. (From the Brooklyn Eagle.)

Merchants and statesmen to-day

Merchants and statesmen to-day congratulate themselves upon the wonderful spread of this country's commerce, the greatest any nation has over seen. But they do not, perhaps, realize that the nation has advanced in another way that is possibly the true core of our national success. This is the extraordinary advance in scientific learning, as shown in the universities, professional and technical schools and in everyday life. If this rabid moulding of America into a scientific nation does not fully account for the commercial victories, it has at all events contributed largely to them.

So pronounced has been the development of these universities and schools that now at the beginning of the century they surpass those of Europe. And yet surpassed is by no means the right word. There is no institution in Europe resembling them or organized on quite the same plan. The scientific school of America in its grasp of what really constitutes practical, extensive training has no counterpart in the world. It turns out scientists that are at the same time workmen of the highest type. The universities and technical schools of England and the Continent, excellent as many of them are, have not fully caught the spirit and trend of the time.

type. The universities and technical schools of England and the Continent, excellent as many of them are, have not fully caught the spirit and trend of the time. The tree of the new American scientific education is being known by its fruit. It has brought a new sort of workman into the field of labor, and European industry stands by, wonderling why her representatives cannot do as well.

The explanation of it is all very simple, however. American technical education had its first beginning fifty years ago. Within the past twenty-five years the scientific professional schools have been seeing their true development. Now the combined results have become so great that they are apparent all over the world, "The earliest technical schools," wrote Prof Mendenhall, president of the Technological Institute of Worcester, Mass, in his monograph on "Scientific, Technical and Engineering Education in the United States," prepared for the recent Paris Exposition, "those of a hundred years ago or more, almost without exception, grew out of the industrial demands of the locality in which they were founded. One of the best examinate in the famous School of the best examinated the second of the leaf of the part of the famous School of the best examinated the second of the best examinated the second of the best examinated the second of the leaf of the part of the second of the leaf of the part of the leaf of the part of the second of the leaf of the leaf of the part of the leaf of the lea out of the industrial demands of the locality in which they were founded. One of the best examples is the famous School of Mines, at Freiberg, which has enjoyed a long and flustrious career, and many of the earlier European schools belong to the same class. To these and the more modern schools of science and technology the United States are greatly indebted, especially on account of the generous welcome that has always been extended to American students and for the inspiration with which many of them have returned with which many of them have returned to take their part in the wonderful educational evolution which the last half century has witnessed.

"But in all cases European methods have

been adapted rather than adopted. been adapted rather than adopted, • • • and while the nearly 100 schools of science and engineering scattered over the United States have many points of resemblance, there is much individuality, particularly among the strongest and best, and it is believed that their several types represent important advances in the direction of scientific and technical duratter. scientific and technical education.

This matter of scientific training for youth makes but a conservative, quiet claim, though yet a substantial one. He youth makes but a conservative, quiet claim, though yet a substantial one. He might have pointed to some of the results of these "believed to be important advances." American technical school graduates have come to be the bridge builders of the world. There are no steel makers, of the world. There are no steel makers, no tool makers in Europe equal to the cool, keen young scientists in American shops and mills. Nor has the Continent and England such a race of railway construction engineers. Only this summer the Massachusetts Institute of Technology held examinations in London for the young Englishmen of scientific tastes, who, to learn what they wanted to fit them for the scientific world, found their celts. the scientific world, found their only re-course an American school. And, in the field of medicine, four distinguished physifield of medicine, four distinguished country cians and surgeons of this country now touring the world at the request of foreign doctors who are anxious to learn accurately of the advances of this branch of the science in the New World.

Out of many significant instances these have been picked. The number might be greatly added to, with only the advantage of emphasizing the point. That which has the most pronounced is, however, the turn-ing of the tide. Thirty years ago, and even well onto very recent years, the American student of any kind of science found it a part of his education to go to the schools abroad for as long a period as his pocket-book could stand. His education was not a very prominent place. These will be made both single and double-breasted and will have buttons covered with the material of which the waistcoat is made. In evening dress coats there will be no change worth recording. That garment is a far beyond what the schools of Europe staple fixture and it seems impossible to improve upon the existing standard. The freek coat will be practically the same comming over here to grass the training ing over here to grasp the training

coming over here to grasp the training that our universities are giving and to absorb the technique and the thorough practicalness that are making American scientists masters of men.

"Adapted" was the word Prof Mendenhall used in speaking of European methods and the American universites, "rather than adopted." But it has been very much more than that. Brushing traditions aside these institutions of learning went less. these institutions of learning went long ago to the root of the matter. Year by year they have been building up their equipment, strengthening their courses, Questions of finance and whether it would all juy they have politely laughed at. Money was needed for this and for that. Well, the chiefs would see that I, was obtained. Machinery was necessary. At once the great manufacturers were laid under contribution, and they sent as gifts machines worth thousands.

The technical school presidents knew how to arouse the sympathetic under-standing of men of means and fore-thoughs, isenefactors for this and for that crowded in, their gifts were chronieled in the news of the day, commented upon as yast, the figures added up and admired. But no one saw the significance,

Year after year students came out of courses of engineering, of medicine and surgery, of chemistry, of electricity, of marine engineering, of agriculture and forestry and went into workaday life. Hitherto the scientific college man had not been held in very high regard. Manufacturers had wanted men who had grown up in shops, "practical" they called them, no "book learning fellows, who were all theory and clean clothes and hands." But even the most old fashloned soon came to appreciate that these "fellows," too, came from "shops," "shops" in the colleges that had a wider variety of machinery in actual use than could ever be found in a single factory. They grew to see that the new "theory man" was broader, of more Year after year students came out of cere the most old fashloned soon came to appreciate that these "fellows," too, came from "shops," "shops" in the colleges that had a wider variety of machinery in actual use than could ever be found in a single factory. They grew to see that the new "theory man" was broader, of more intelligence, willing to learn about a case in point and able to grasp it more quickly. They devised economies and improvement whenever they were given a chance. They could make one man do the work of two. The old time foreman was a child before them.

Then, one after another, the far seeing manufacturers chuckled. They had bridged the gulf between capital and labor and found real master workmen. They gave these men more swing and power and kept on the lookout for more youths from the technical schools. They came to see that the product from these institutions was getting better every year.

The technical schools and universities had won their point. They realized the growing demand for their men. They technically consulted with the greatest and lives in the same quarters with them.

the most progressive manufacturers as to what their needs were and built up more perfectly their equipment. Not alone did they reach out for machinery, but the newest and the best. They had at last created a new market for mgn.

If a concrete, striking instance is wanted of this, Sibley College or Cornell University may be taken. That institution has a very famous railroad course. The "ordere" that come to the college each spring for graduates are greater than Sibley can possibly supply. She cannot turn out enough men to meet the demand. Twice as many as she graduates each year could be assured of positions. For the railroads say simply: "These are the men we want; they are the men that will rise with us or with some other company. We cannot now get too many of them."

And so the demand is spreading out in many another branch of science. The American technical schools are turning out the product. It is these men that in latery years do the inventing and the great pleces of executive work and make the discoveries. Is it any wonder that the youth of England and the Continent are commencing to come to this country for technical training?

commencing to come to this country for technical training?

THE HERMIT OF CAPE MALEA. Why he Lived and Died on a Stupendous Cliff, Within Sight and Sound of the

There is one feature of Cape Malea that

Ocean.

rarely falls to attract the notice of the most careless voyager doubling it by day, a touch of human tragedy and pathos, belonging in point of chronology to our own time, but in universal interest to all ages. At the extreme pitch of the cape a stupendous cliff rises sheer from the fretting waves for about a hun-

dred feet. Then comes an irregular plateau or shelf, of perhaps two acres abruptly the mountain rising again abruptly the mountain rising again abruptly the mountain ages ago, is abruptly the mountain ages ago, is a house. It is rudely built of wooden from the mountain ages ago, is a house, it is rudely built of wooden from the mountain ages ago, is a house, it is rudely built of wooden from the mountain ages ago, is a house, it is rudely built of wooden from the mountain ages ago, is a house, it is rudely built of wooden from the mountain ages ago, is a house, it is rudely built, too, for it is exposed to the full fury of wind rebounding from the mountain face, and the observer institutively wonders why, it a house must be built on that shelf, it is exposed to the full fury of wind rebounding from the mountain face, and the observer institutively wonders why, it a house must be built on that shelf, it is exposed to the full fury of which is shelf, it is exposed to the full fury of which is shelf, it is exposed to the full fury of which is shelf, it is exposed to the full fury of which is shelf, it is exposed to the full fury of which which is shelf, it is exposed to the full fury of hard work, integrily of character and firmness of this ambition—becoming mustice at minimal of his ambition—becoming mustice at minimal of his ambition—becoming mustice and girls of his choice, who had patiently waited for him since as boy and girls of sea. And with or combined privilege of carrying his young bride to sea with him. How happy he was! How deep and all embracing his pride, as, steaming down the grimy Thames, he explained to that she will have be called agood furture to courtship! Thames, he explained to her min by his oft-repeated sea stories during the few bright days between voyages that he had been able to devote to courtship! The ship was bound to sometal Medicerance in private which he had made familiar to her min his private which had been possible. The provision of the provision of the provision of the woodersh

LINCOLN'S BIRTHPLACE

To be Utilized as an Asylum for Inchriates. Down in the Blue Grass region of Ken-

tucky, on the same farm where Abraham Lincoln was born and spent his boyhood days, says the Chicago Tribune, the St Luke's Society, of Chicago, is to establish a home for the inebriates of the South A large hotel, small cottages and commodious dwellings will be erected by the

THE HEART OF MONTROSE

BEQUEATHED BY THE MARQUIS TO HIS NIECE, LADY NAPIER.

Gruesome Relie of a Vallant Scottish Hero and how it was Mysteriously Lost— Little Hope of the Ultimate Recovery of the Relic, but After the Lapse of One Hundred Years the Heart of the Grabam May Once Again Rest on Scottish Soil.

(From Chambers's Journal.) Alas that no one knows where-but somewhere, certainly-the heart of vallant James Graham, Marquis of Montrose, awaits the collector of curiosities! Tossed. among bits of armor, old china, bric-aamong bits of armor, old china, bric-a-brac, in some old curiosity shop in the north of France; possibly now carried to Paris or London, it may lie in some old lady's lumber attic; or, trampled years ago into the ground of a back garden in Boulogne, Pierre and little Marie may turn it up any, day with their spades. "Qu'est-c que c'est donc," this little old, beaten, egg-shaped box of steel? Why, Pierre and Marie, it holds, if you only knew it, the dust of a Scottish hero's heart, and the case itself was fashioned out of his good steel sword.

case itself was fashloned out of his good steel sword.

Montrose knew Merchiston Castle, Edinburgh, well; it was, in fact, a second home to him in his boyhood, for his sister Margaret had married Sir Archibald Napier when Montrose was 6'' ? 7 years old, and he spent much of his tithe with them. The Napiers had, besides, a town mansion within the precincts of Holyrood House; but to little Møntrose, brought up in the country, the old castle, with its barns and out houses and granges, was no doubt a country, the old castle, with its barns and out houses and granges, was no doubt a more attractive holiday home than a duli town house in the fashionable Cannongate. One can fancy the little figure, in its clothes of "green camlet" or "mixed pargone" and "cloak with pasments," wandering with his bow and arrows about the marks or maybe exceed from his parts or maybe exceed from his parts.

dering with his bow and arrows about the parks, or, maybe, escaped from his watchful "pedagog," Master William Forrett, imperiling himself, boylike, on the battlements of the castle.

But to get to the story of the heart one must leave the life and hasten to the death of Montrose. His sister and brother-in-law had died long before, and the owner of Merchiston in 1650 was Montrose's nephew, the second Lord Napler. A great affection existed between Montrose and his nicce by marriage, Lady Napler; and his nicee by marriage, Lady Napler; and as a mark of it he bequeathed to her his heart—a strange, and, if one must tell the truth, an embarrassing, legacy; but looked upon by the lady herself as a supreme honor and a sacred trust.

TUBERCULOUS COWS DANGEROUS

TUBERCULOUS COWS DANGEROUS

preme honor and a sacred trust.

Montrose was executed at the Market Cross of Edinburgh on Tuesday, May 21, 1650. The extraordinary composure and gallantry of his bearing are well attested. An unsigned letter in the British Museum, written by a spectator while the execution was actually going on, says: "I never saw a more sweeter carriage in a man in all my life. He is just now turning off from the ladder; but his sountenance changes not." Another account says: "He stept along the streets with so great state, so much beauty, majesty and gravity as essay, just published, Dr Johne says that along the streets with so great state, so much beauty, majesty and gravity as amazed the beholders. And many of his enemies did acknowledge him to be the bravest subject in the world, and in him a gallantry that graced all the crowd." Clothed in "fine scarlet richly shammaded with golden lace, and linen with fine pearling about, his delicate white gloves in his hand, his stockings of incarnate silk, his shoes with their ribbons on his feet," his dress was "more becoming a bridegroom than a criminal."

After hanging on the gibbet for three

bridegroom than a criminal."

After hanging on the gibbet for three hours the body was taken down and the head was affixed to the Tolbooth; the limbs were dispersed to various places throughout the Kingdom, and the dismembered trunk was enclosed in a "little short chest" and buried on the Boroughmuir. The Boroughmuir was the usual place of execution and burial for the worst criminals; it was a place of evil reputation, little sought during the day and much to be shunned by night.

the sought during the day and much to be shunned by night.

No wonder, then, that some "adventurous spirits" were required who would steal to that grewsome spot, raise the hastily and none too deeply burled body, and cut from it the heart of Montrose. The master of Merchiston was in exile in Holland; it was Lady Napler alone who planned the night excursion and saw it carried out. Did her heart fair her that May night, waiting at the foot of the turret stair until her messengers, returning. ret stair until her messengers, returning, put in her hands something not seen, but felt, with the square of fine linen all "tricked with bloody gules?" That same square of linen and the pair of stockings of "incorporate" tills charged and the pair of stockings

land belonged to John Napler, the Inventor of logarithms; and the box in its turn was deposited in a silver urn.

Before very long, however, Lady Napler dispatched the casket by some faithful hand to the young Marquis of Montrose, who, with Lord Napler and others of the connection, was still living in calle in Holland, and here begins the first part of its adventures, of which, unfortunately, no record now remains.

For many years the heart was completely lost sight of, and any hope of ever regaining it had long been given up, when a friend of the Napler family recognized the gold fillgree box enclosing the steel case among a collection of curjosities in Holland. He purchased the relie at once and returned it to Merchiston, at that time the property of Francis, the fifth Lord Napler it passed into the keeping of his only surviving daughter. Hester, afterward Mrs Johnston.

Some years after her marriage Mrs Johnston was on a voyage to India with her husband, her little son, and all their household goods, when their ship, which formed part of the fleet under Commodore Johnston, was attacked by a French frigate, and a stiff fight ensued. Mr Johnston busied himself with four of the guns upon the quarter deck, while his wife, who had refused to go below, remained beside him, a heroically obstinate figure, holding by the one hand her little boy, and in the other a thick velvet reticule, and earling the restrict of the fight a splinter struck Mrs Johnston on the arm, wounding her severely. The velvet reticule gave little protection to its precious contents, and the gold fillgree box was completely shattered, tall and the probability of the probability of the probability of the first content of the first content of the fight a splinter struck Mrs Johnston on the arm, wounding her severely. The velvet reticule gave little protection to its precious contents, and the gold fillgree box was completely shattered, but the liner steep the probability of the first and the probability of the first and the probability of the fir

It was part of the training of the little boy who had stood beside his parents during the attack on the Indianan to spend four months of every year with a native chief, in order to learn something of the language and native methods of hunting and shooting. While on a sporting expedition the boy distinguished himself in warding off the attack of a wild hog; whereupon the chief, to show his appreciation of the performance promised, in true Oriental Iashion, to give the lad practically anything he chose to ask. As this chief was the purchaser of the urn, young Johnston naturally begged that the family property might be handed back to him. The chief made a generous speech in reply, explaining that when he bought the urn and its contents he had no idea that they were stolen goods, and adding that "one brave man should always attend to the wishes of another brave man, whatever his religion or his race might be; therefore he considered it his duty to fufil the wishes of the brave man whose heart was in the urn, and whose wish had been that his heart should be kept by his descendants." Accordingly the boy returned home laden with gifts of all sorts for himself and his mother, and carrying with him the urn and a letter of apology from its late custodian. The death of this liberal-minded chief forms an interesting sequel to this adventure of the heart. Having rebelied against the Nabob of Arcot, he was taken by English troops, and he and many of his family were executed. When the chief was told he would be put to death he referred to the story of Montrose, and said that as there was something alike in the manner of their dying, so he hoped that after death his attendants would preserve his heart, as the heart of Montrose, and said that as there was something alike in the manner of their dying, so he hoped that after death his attendants would preserve his heart, as the heart of Montrose, and said that as there was something alike in the manner of their dying, so he hoped that after death his attendants would preserve his

many as Elsewhere.

(From the Baltimore 3un.)

Prof Koch's dictum that the tuberculosis of cows is not transmissible to man or child is controverted in Germany, as elsewhere, with virtual unanimity. Prof Virchow opposes the view of the great bacteriologist and is reinforced by Dr Johne, professor of pathological anatomy at Veterinary Collego of Dresden. In his essay, just published, Dr Johne says that "it is precisely the milk of tuberculous cows that plays the chief part in cases of tuberculosis among children." To prove his point the Doctor mentions the case of a veterinary surgeon who injured his thumb while dissecting a diseased cow. Six months later tuberculosis manifested itself in the scar of the wound, and afterward tuberculous bacilit were found in his sputum. The surgeon died of consumption, and "at the post-mortem examination," the Doctor adds, "a considerable number of similar bacilit were found in the joint of the deceased's thumb. The conclusion is "that the bacilius of bovine tuberculosis is a tuberculous bacilius of less intensive power, which is perhaps less dangerous as a germ of infection for normal grown-up human beings of good health and strong powers of resistance, but that it is all the human beings of good health and strong powers of resistance, but that it is all the more destructive to the tender organism of a child or to the organism of those grown-up persons who have weak constitutions, or who are ill-fed and, therefore,

THE MYSTERY OF SLEEP-WALKING Scientists are Still Puzzled Over the Many Phases of it-A Charleston Physician's Experiences.

not so capable of resisting infective

(From the Cincinnati Commercial.) "Sleep-walking is something better un-derstood now than formerly, but psychologists are not thoroughly agreed in regard to many of the phases," observed square of linen and the pair of stockings of "incarnate" silk showing a still darker stain have remained ever since among the reasured possessions of the Napair family.

For a time, then, the heart was safe at Merchiston. It was embalmed and inclosed in a little steel case made of the blade of Montrose's sword; the case which had belonged to John Napier, the inventor of logarithms; and the box in its turn wave deposited in a silver urn.

Before very long, however, Lady Napier dispatched the casket by some faithful

the English commodore left the flag ship and came on board the Indianman to offer his thanks and congratulations to the lady and her husband, who had set the crew so gallant an example.

Arrived in India, it was easy to find a clever goldsmith, who constructed another gold fillere box in place of the one broken, also a sliver urn like the original. On the outside of the urn was engraved in two native dialects a short account of Montrose's life and death. The urn soon came to be regarded by the natives as something uncanny, and the report spread that it was a talisman, and that its owner would never be wounded or taken prisoner in battic. So one is not surprised to learn that before long the urn and its contents were stolen, and in spite of every effort could not be traced. Mrs Johnston, hewever, discovered after some time that it had been sold for a large sum of money to a powerful chief in the neighborhood of Madura.

SAVED BY THE MASONIC SIGN.

(From the American Tyler.)

During the memorable raid that Grant's army made on Petersburg. Va, on April 2, 1855, when Lee's lines were broken, a young Confederate officer lay on the road everely wounded, and when, without a moment's warning, a company of Pederal eaverly wounded, and when, without a cavalry rode down towards him at a full galop, he saw death staring him in the face. Ilis first thought was that possibly there might be a Mason among them, and the report spread that it was a talisman, and that its owner would never be wounded or taken prisoner in battic. So one is not surprised to learn that before long the urn and its contents were the company in the centre, without molecular the course of the contents were to the contents were the company of Pederal expension of Rockwell, Tex, a prominent physician, is anxious to learn the name and residence of the officer who saved his life in anxious to learn the name and residence of the officer