MILLIONS OF PINS.

NOW THEY ARE MADE IN THESE DAYS OF MACHINERY.

meter for pins.

When it reaches the pin department proper the wire must first be straightened, as on the small reels it takes a permanent set, which is not allowable in the pin machines. From the small reels it is wound to the standard pin machine reel, twenty-two inches in machine reel, twenty-two inches in machine reel, twenty-two inches in diameter, at the rate of over 1000 feet per minute, passing through a com-bination of horizontal and vertical straightening rolls, which effectually take out the kink and leave it ready for the pin machine. The reel is now placed on the rack beside the pin ma-chine, and rollers draw the wire into the machine, where it is first cut off, then headed by three distinct blows,

given by a cam and toggle.

The headed blanks are carried down on the surface of a vertical wheel, to horizontal disks below. Here they pass between the two disks and are revolved by one running much faster than the other, at the same time being moved to the left over revolving steel files, four in number, which make the points, finishing with an emery belt. These machines are speeded to make 160 pins per minute, and fifty machines work in one room. As these machines require practically no attention, they are run about fourteen hours a day, and the number of pins made, allowing for stoppages, will exceed 5,000,000 per diem, the aggregate weight being from 1200 to 1500 pounds, according to size; the different sizes varying in weight from 1100 to 18,000 to the pound.

The pins then travel to the tinning room, where they are tumbled with saw-dust for ten minutes to remove all oil and dirt, boiled for four hours with Banca tin, in a prepared solution, and after a bath of strong scapsuds to give them a smooth surface, a final tumbling with sawdust makes them ready for the sticking room. Once there, they are dumped into the hoppers of the sticking machines and thence pushed out by revolving fingers to an inclined bed with radial slots, or "runs," into which large numbers of the pins fall, some being caught by the head, others escaping through openings to a pan below to be replaced in the hopper at leisure.

The pins feed down these slots and drop in the "cutting-off" plate as it is moved slightly across the row, and when full the movement of a lever drives the small hammers down, forcing them into the paper, which is crimped at the same time and held for the sticking. These power sticking machines were designed by Mr. Naramore in 1884, and have as many runs as there are pins in the row, the ones for cut sheets having thirty pins to the row and twelver rows to the paper being used in this machine, the attendant sticking about 2400 sheets per hour. on the surface of a vertical wheel, to horizontal disks below. Here they pass between the two disks and are re-

that two or more blows were necessary, and three has now become universally the practice.—Machinery.

An Athletic Piano Player.

An Interesting Manufacturing Process Which Originated in This Country and in Which We Are Still Pre-eminent

In Making was one of the first mechanical industries which engaged the attention of our forefathers, for as early as 1775 the colony of Carolina offered prizes for native-made pins, and factory was started in 1812 but failed. Twelve years later Mr. Lemuel W. Wright, a native of Massachusetts, was granted a patent in England for a pin making machine, but this, for some reason, was not introduced into the United States; and in 1842 Dr. John T. Howe, New York physician in charge of a hospital, whose convalescents occupied their time by making pins by hand, determined to introduce into America the manufacture by machinery of these small articles. After a period of careful study, during which time he acquired knowledge of their manufacture, he returned to this country, bringing with him the necessary machinery for a factory. The ingots, or bars from which the pins are finally made, are cast in iron molds, and are about one and a half by three inches and six feet long, being a mixture of two parts copper for one part zinc. By continuous rolling and frequent annesling these bars are reduced to sheets about one-eighth of an inch thick, and then passed between rollers which slit them into small square strips ready for drawing. The process of drawing is well known, dies of different sizes being provided, and by continuous drawings and annealing the wire mass the right diameter for pins.

When it reaches the pin department proper the wire mass the testralght-reaction of the passed between rollers which slit them into small square strips ready for drawing. The process of drawing is well known, dies of different sizes being provided, and by continuous drawings and an engement at the Royal Aquarium, where he player the Royal Aquarium, there he player the Royal Aquarium, there he player the Royal Aquarium, there he player the player to make the right discontinuous distributions of the original of the reaction of the re

Herald.

The "Bisappearing Well."

The celebrated "disappearing well."
is situated on a farm near Olympia,
Wash. It was sunk in 1883, the workmen going down to a depth of twentythree feet. About 1890 it was noticed
that the platform was being gradually
raised off the ground by the top layer
of bricks, which had protruded above
the ground, and before the end of the
year had repeated the operation
twelve different times, moving not less
than two feet of the wall. Since the
spring of 1891 the well has been entirely abandoned, the water having
become unfit for use on account of
some obnoxious gas escaping into it,
and which can be smelled at a distance
of 100 feet from the well. Since its
abandonment nothing has been done
towards removing the bricks which
gradually, but surely, layer after
layer, show themselves above the
ground. At the present time the wall
actually "sticks" out of the, ground,
like a huge circular chimney, its
height above the surface being a few
inches over ten feet. The bottom of
the well is now only eleven feet from
the surface, and it has been calculated that all the present rate of upheaval it will actually rise to the surface level and entirely disappear by
the end of 1893. Scientific inquiry
proves that the phenomenon is of
seismic origin and that it is really the
showing of the lesser forces of an
earthquake.—St. Louis Republic.

Disadvantage of Not Being Polite.

Disadvantage of Not Being Polite.

A want of politeness is a disadvantage at St. Petersburg, Russia. In one of the principal streets, writer our correspondent in that city, is a large fruit shop, belonging to a very wealthy merchant, who, besides zelling fruit, keeps an elegant restaurant in the same building, and occupying a position directly behind the shop. Two young officers of the guard the other day entered, had lunch together, and, after paying their bill, both went out. They had, however, only proceeded a short distance when one of them missed his pocketbook and, thinking that he might have left it in the restaurant where he and his friend had lunched returned and seked politically if any one had seef it. The proprietor himself (a millionaire) came on the scene, and, after giving expression to some objectionable remarks, said that it might well be doubted whether the young officer possessed such an article as a pocketbook. The officer complained to the police and ultimately the matter reached the Prefect, who, regarding it as an insult to the Imperial uniform, caused the restaurant to be at once locked up, the doors sealed, and prohibits the proprietor from longer eatering to the public taste. —London News.

The Highest Bridge.

The Highest Bridge.

The highest bridge of any kind in the world is said to be the Loe River tendant sticking about 2400 sheets per hour.

Some of the sticking machines are adapted for the cheaper pins, which are stuck into continuous rolls at a rate of 100 rows a minute and cut up into the required lengths after leaving the machine. These machines need very little attention, filling the hopper and renowing the rolls being all that is required. About the only feature of the business which has not changed is the style of putting up the pins, the old numbers of fourteen rows of twenty each for cheaper pins and twelve rows of thirty each for the better grades still being used.

Fifty years ago when Mr. Joseph Maramore was a boy in the pin factory at Birmingham, Conn., the pins were put into the paper by hand, the creases being rolled in by a machine, and the pins and paper were taken home by the farmers to do evenings, being paid at the rate of six cents per dozen papers. Next came the hand machines, having a single slot or "run" in place of twenty or thirty, as are now used, and having a "outting-off" plate and hammers much as in the latest machine, being operated by the levers at the side of the machine.

The first pins were made with wrapped or spun heads, the solid or love the former to do evenings, being paid at the rate of six cents per dozen papers. Next came the hand machines, having a single slot or "run" in place of twenty or thirty, as are now used, and having a "outting-off" plate and hammers much as in the Latest machine, being operated by the levers at the side of the machine.

The first pins were made with wrapped or spun heads, the solid or viaduct, on the Antofagasta Railway

farmers to do evenings, being paid at the rate of six cents per dozen papers. Next came the hand machines, having a single slot or "run" in place of twenty or thirty, as are now used, and having a "outting-off" plate and hammers much as in the latest machine, being operated by the levers at the side of the machine.

The first pins were made with wrapped or spun heads, the solid or "upset" head not being satisfactorily accomplished until it was discovered

MY WIFE'S NERVES

ousness, headache and loss of slee is the testimony of many a man. The poor tired woman is suffering from impure and impoverished blood. Her food does not di-gest. She is living on her nerves, her arength is gone. Her nerves and muscles

NEED STRENGTHENING

by the use of Hood's Sarsaparilla which nakes pure, rich blood, creates an appetite, and gives tone to all the organs of the body. This is not what we say, it is what Hood's Sarsaparilla does. "My wife began taking Hood's Sarsaparilla about three months ago. She has been in poor health for 15 years. Hood's is doing her good. Her appetite is better, she looks better and there has been improvement in every way." J. W. Roberson, Greenfield, Tennessee.

Hood's Sarsaparina Be Sure to get Cures Hood's

Hood's Pills are the best after-dinner Pills, assist digestion, prevent constipation.

How Long Is the Brooklyn Bridge How Long Is the Brooklyn Bridge?
From Park Row, New York, to
Sands street. Brooklyn, the bridge is
4,989 feet long, or about one mile
and a seventh; with the extensions
the bridge is 4,537 feet, or nearly a
mile and a quarter long. The river
span is 1,5924 feet, and on the Brookflyn side 971 feet, while the land
spans of the bridge are each 930 feet



DO YOU EXPRECT
TO Become a Mother?
If so, then permit us to say that Dr. Pierce s Provente Prescription at true "Mother's Priend," For IT MAKES

Childbirth Easy
Up preparing the system for parturition, thus assisting Nature and shortening "Labor." The painful ordeal of childbirth is robbed of its terrors, and the dangers thereof greatly lessened, to both mother and child. The period of confinement is also greatly shortened, the mother strengthened and built up, and an abundant secretion of nourishment for the child promoted.

giving all particulars.
DISPENSARY MEDICAL ASSOCIATION, 63
Main St., Buffalo, N. Y.

PAINLESS CHILDBIRTH.

PAINLESS CHILDBIRTH.

PAINLESS CHILDBIRTH.

Mrs. Frad Hevr, of Glenville, N. Y.,
says: "I call about Dr. Pierce's Faworte Prescription being so good for a woman with child, so I
got two bottles last
September, and December 15th I had a
twelve pound baby
girl. When I was
confined I was not
sick in any way. I
den no steller
child was born I walk,
ed into another room
and went to bed. I

child was born I wulked into another room
and went to bed. I
keep your Extract of
Smart-Weed on hand
all the time. It was
very cold but I did not take any cold, and
never had any after-pain or any other pain.
It was all due to God and Dr. Pierce's Favorite Prescription and Compound Extract
of Smart-Weed. This is the eighth living
child and the largest of them all. I suffered everything that flesh could suffer with
the other babics. I always had a doctor
and then he could not help me wery much,
the could not help me wery much
were all the man of the surface of the

WORLD'S-FAIR



Has just, acquired the reputation of being

The Salvator for The Salvator for The-Aged. AN INCOMPARABLE ALIMENT for the GROWTH and PROTECTION of INFANTS and

CHILDREN A superior nutritive in continued Fevers, And a reliable remedial agent in all gastric and enteric diseases;

instances of consultation over whose digestive organs were reduced to such a low and sensitive condition that the IMPERIAL GRANUM was the only nourishment the stomach would tolerate when LIFE seemed depending on its retention;—And as a FOOD it would be difficult to conceive of anything more palatable.

THE FARQUHAR, **ENGINES** C.



Send for Catalogues to A. B. FARQUHAR CO., Ltd., York, Pa-

Canvassers everywhere. \$10 a day made easily.

Address. Automatic Griddle Co. Homestead. Pa.

F. J. Cheney & Co., Toledo, O.

We read of strange happenings and results sometimes, like that of a man who was caught by a revolving wheel and so threshed against floor and ceiling his body turned

The New York Central ran a train 43 in 425 minutes, the best long distance r

Dr. Kilmer's Swamp-Root eu all Kidney and Bladder troublee Pamphlet and Consultation free Labratory Binghampton, N. Y.

Average cost of locomotives is \$9,000.

A Cure That Cures is the kind most people desire. Such a c Ripans Tabuies, but not a cure for every They are for all liver and stomach disc and one tabule gives relief.

Sleeping cars average a cost of 15,000 each,

CORNER IN ELK TEETH,

A Montana Man Who Has More Than 86,-

John D. Losekamp of Billings,
Monta, practically helds the elk-tooth
stock of the entire country, says
Forest and Stream, and to his already
nonrmous supply he is constantly adding, the Indians and hunters bringing teet the old from all over the
country. Not everyone knows that
the elk teeth, or rather the tusks, of
which only two are found in the
mouth of the adult elk, have a practical commercial value. The teeth
are used as jewelry, mostly as pendants on watch guards or as insignia of
the secret society known as the Elks.
The value of a tooth ranges from 50
cents to \$1.50, according to its size,
color, and marking. Mr. Losekamp
has now over \$1,000 elk teeth derestled teacher. The value of a tooth ranges from 50 cents to \$2.50, according to its size, color, and marking. Mr. Losekamp has now over \$6,000 elk teeth deposited in safety vaults. Many of the old Indian dresses were highly ornamented with elk teeth, some of them being fairly covered with the teeth. Mr. Losekamp has lived on the frontier all his mature life and understands Indian tradiance perfectly, yet he has sometimes paid over \$100 for a single garment thus ornamented, caring of course for nothing but the teeth. The Indians drill the teeth to fasten them on their dresses and this does not injure the value of the tooth, but they have a much worse habit of sometimes staining the teeth a bright red. This dye cannot be extracted, and depreciates the value of the elk tooth for a white customer. The Indians do not dye the teeth so much now, since they have learned they can sell them for more in their natural state.

At a dinner-party at Bowood, Canon Bowles, then past sixty, was intro-duced to an elderly lady, with whom Bowles, then past sixty, was introduced to an eiderly lady, with whom he sat chatting pleasantly about things of the day. Bow es was perfectly oblivious that this was the very lady to whom he had heen engaged to be married when he had very little income besides his curacy. The lady, of course, was perfectly well aware that she was talking to her quondam lover; but her married name had in no way enlightened him as to her personality. After a time she said, having touched upon old days: "But, Mr. Bowles, don't you remember me?" "No, ma'am, I don't." Then she added, smiling: "You used to know me and pretend to be very fond of me. I was Miss—" "Oh, what a wreck!" was the spontaneous excamation of the poet. Happily the lady enjoyed the joke immensely, for she was a remarkably handsome wo man for her age, and his burst of surprise was really only a compliment to the extreme beauty of her youth.

Sanitary Value of Hot Tea.

Tea taken hot, is certainly more wholesome than iced tea. This is well shown by the enormous population of China, which could never have increased to its present numbers if epidemics had ravaged that Empire as they have those of the West. In spite of overcrowding to a degree elsewhere unknown and indescribably filthy surroundings, the Chinese have remained healthy. The only sanitary redeeming feature of Chinese have remained healthy. The only sanitary redeeming feature of their lives is the almost universal use of tea as a beverage. This is to say, of water that has been boiled. This lesson in practical sanitation is of more value than anything brought forth by our numerous boards of health, national, state, or municipal. In the presence of an epidemic of cholera, typhoid fever or dysentery, the wisest precaution to take against infection would be to boil all fluids used for drinking purposes. used for drinking purposes.

There is more Catarrh in this section of the country than all other diseases put together and until the leaf few years was supposed to be incurable. For a great many years doctors pronounced it alocal disease, and prescribed local remedies, and by constantly failing to cure with local treatment, pronounced it incurable. For a great many years doctors pronounced treatment, and the constantly failing to cure with local treatment, the Scatarrh Cure, manufactured by F. J. Cheney & Co., Toledo, Ohio, is the only constitutional cure on the market. It is taken internally in doses from hidrons to the state of the system. They offer one hundred dollars for any case it fails to cure. Send for circulars and testimonials free, Address J. Cheney & Co., Toledo, O.

KENNEDY'S MEDICAL DISCOVERY.

CHRONIC RHEUMATISM.

Dear Sir, Mr. Kennedy:—In '64 I began taking your Discovery for Chronic Rheumatism; suffering so much pain till I used to call some one to sit on my limbs to deaden the pain. I had doctors for six years. No use. I then began with your Medical Discovery. The first bottle went to every joint and gave me pain. My husband said, "Keep on, till you see it spring the joints." So two and one-half bottles cured me so that I was able to walk two miles. Had not done it for six or seven years. I have kept it in the house ever since. I opened the 22d bottle today, for I take it instead of doctoring. I have never had a doctor since I have taken your Discovery. I am a widow 74 years of ago, and a well woman.

Yours truly, Mrs. ELIZABETH HILLS.

SCROFULA.

DONALD KENNEDY, ROXBURY, MASS, KIND FRIEND:—I will now give you the particulars about my little girl. She was five years old the 2nd of last May. When she was less than a year old a kernel came under her right jaw on her neck. I asked the best doctor what to do, and he told me to grease it with old bacon grease, and it might rise and run which it did, and I tried everything, but it kept running for nearly two years. I came to Texas, and was at Aubrey, Texas, where I saw the present postmaster at Aubrey. I noticed his face had a bad scar, and I asked him the cause and how he got it cured. He said Scrofula was the cause and Konnedy's Medical Discovery cured it and if I would got some for my little girl it would surely cure her. I got one bottle and she was soon better. I picked white lumps out of her neck as big as peas, and almost as hard as a bone, and after being mashed up they looked like burnt bone crumbled up. In less than a week the swelling was gone, and had quit running. She is still taking it, but apparently she is as well as ever, and as gay as any child.

Yours truly.

S. L. Legger.

CHICAGO, Oct. 15, 1894,

Donald Kennedy, Dear Sir:—I know the worth of your Discovery, for three years ago, before I was married.

I had the Catarrh in my head and throat very bad, and my mother, who always gave it to all of us, made me take three bottles, for which I am thankful to God, for it cured me and many others that we have recommended it to.

Mis. Ellen Seeley, 217 39th St., Chicago,

FOR MOTHERS.

DR. KENNEDY, DEAR SIR:--I have taken your Medical Discovery all through my Pregnancy, and our boy, now three months old is, and has been, in perfect health, while we have three other children, all of whom had eczema and sore mouths. Our attending physician speaks very highly of your Discovery.

Yours sincerely, Mrs. G. W. Hammond.

DROPSY. DONALD KENNEDY, DEAR SIR:—Your Medical Discovery has made a wonderful cure in a case of Dropsy of my ghbor, after four or five good doctors told him he could not get well.

HAUGHVILLE, Ind., Nov. 21, 1894.

But your Discovery fixed him all right.

Yours truly, Samuel Nugery.

MALARIA.

Dr. Kennedy, Dear Sir:—I must inform you of the good effects of your famous Medical Discovery. One lady who was much afflicted with a constant Malarial Trouble declared herself relieved in a few days, and was entirely cured in a few weeks, and this is only one of many.

Yours gratefully, Sister M. Magdalen.

KIDNEY TROUBLE.

NEW YORK City, May 9th, 1894.

Donald Kennedt, Dear Sir:—In using your Medical Discovery I find it good for the general system and especially for the Kidney Trouble. And the reason I can speak for it is this: After coming from South America, in 1889, I was troubled with my back, which the doctors claimed was Kidney Discase. After using many different medicines—and I might just as well have drunk cold tea—I bought two bottles of Kennedy's Medical Discovery, and took it according to directions as given in your book, and my kidneys have not troubled me since.

Yours with thanks, Chas. W. Allyn, 26 East Fourth Street.

PRICE, \$1.50 PER BOTTLE, LASTING IN REGULAR DOSES, ONE MONTH. SOLD EVERYWHERE AT LOCAL STORES AND BY EVERY WHOLESALE DRUGGIST IN THE U. S. MANUFACTURED BY DONALD KENNEDY, ROXBURY, MASS. SEND POSTAL CARD FOR BOOK.

Improved Revolver,

Improved Revolver.

The new German revolver is not really a rovolver at all, but it is a wonderful repeating pistol all the same. All you have to do is to drop eight cartridges into a magazine in the stock and then pull the trigger as often as you want to shoot until the ammunition is exhauste! The recoil of the shot when the pistol is first fired sets in motion mechanism which ejects the shell ust fired, orings up a new one to the barrel, cocks the pistol, and locks the movable parts. Another touch on the trigger repeats the operation, and the eight charges have been fired in two seconds.

Necklace for a whate.

A large whale washed ashore on
the coast of Labrador on Aug. 17 had
a long anchor chain wrapped three
times around his body. The anchor,
which was still attached to the chain,
weighed nearly a half ton.

THE people pay more for love than for any other necessary evil on earth.



KNOWLEDGE

RNOWLEDGE

Brings comfort and improvement and tends to personal enjoyment when rightly used. The many, who live better than others and enjoy life more, with less expenditure, by more promptly adapting the world's best products to the needs of physical being, will attest the value to health of the pure liquid laxative principles embraced in the remedy, Syrup of Figs.

Its excellence is due to its presenting in the form most acceptable and pleasant to the taste, the refreshing and truly beneficial properties of a perfect laxative; effectually cleansing the system, dispelling colds, headaches and fevers and permanently curing constipation. It has given satisfaction to millions and met with the approval of the medical profession because it ears on the Kide.

It has given satisfaction to millions and met with the approval of the medical profession, because it acts on the Kidneys, Liver and Bowels without weakening them and it is perfectly free from every objectionable substance.

Syrup of Figs is for sale by all druggists in 50c and \$1\$ bottles, but it is manufactured by the California Fig Syrup Co. only, whose name is printed on every package, also the name, Syrup of Figs, and being well informed, you will not accept any substitute if offered.

Treat Your Stomach Well:

It's the driving wheel of the human machinery. Good wholesome food is what the stomach wants—nothing

else.
A suggestion for to-mor-row's breakfast,



Ready for the table at LIGHT, DAINTY,

REVERSEE

RESPONSE HE AND THE STATE OF THE S



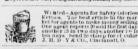
in time. Sold by druggists

A . Ripans . Tabule

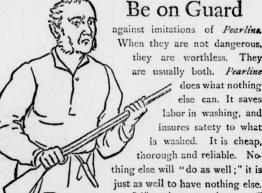
On her tongue Instead of Swallowing it whole. It does its work Either way, But the last is the way intended, Newschields

PHYTOLACCA BERRY TREATMENT for Fat an Attendantilis. Our leaset on this

DENSION WAShington, B.C.



WALL ST. NEWS LETTER of value sent Charles A. Baldwin & Co., 40 Wall St., N. Y.



When they are not dangerous,

they are worthless. They are usually both. Pearline does what nothing else can. It saves labor in washing, and insures satety to what is washed. It is cheap, thorough and reliable. No thing else will "do as well;" it is just as well to have nothing else. Peddlers and some unscrupulous grocers will tell you "this is as good as" or "the same never peddled, and if your grocer sends you something in place of Pearline, do the honest thing—sendit back. 24 IAMES PYLE, New York.

EASTMAN COLLEGE, Porqueexerve, at the lowest cort. Healthful best influences; elective at the lowest cort. Healthful best influences; elective at the lowest cort. Healthful best influences; elective when an add Business studies; Shorthand and Type working; English and Business training; Forthand and Type working; English and Business, e.e. the commentary branches, e.e. the commentary branches are the commentary branches, e.e. the commentary branches are the commentary branches