## NG'S WORK.

and a Mill Tower-Damaged,

With a Black Streak from to His Heels.

July 15.-During Loudon village this rire of the Congregas struck by lightning damaged by the fire

H., July 15 .- A severe sed over this city he lightning and rain age. The lightning ospital stable, killing Arthur Osgood's rest quite fortunately no.

... July 15.-The most wind and rain storm swept over the Adthis atternoon. At re apprehensive of a rm moved northeast rightful rate of speed. July 15.-During the ight, lightning struck Nashua Manufacturice. doing heavy dam-

Mass., July 15.-Wm. has struck by a lighta severe thunder on. Though he was ack streak from his s, he is still alive. o be not hope of his er. Charles Anderson, with him, was burned. injured.

o, July 15.-A cloudplace tonight, acghtning. Some houses inches over the floor. oke, two ridges were the roof of Simon's blown off and several struck by lightning. y 15.-A heavy storm as practically a cloud t damage throughout Estimates llegheny. orts coming from outndicate a loss of nearn dollars. All street been stopped. At 48th in the second story of sed by the bursting of Part of Allegheny cemeen washed away and of the citizens' street up. Tons of earth and washed onto the nd Duquesne Traction at Soho. The sewers and Woods Run in Alorted as having given those sections. No loss

ed yet. hio, July 15.-This afy, Covington and Newrm of wind, rain and usual severity. The speed of 45 miles an came in blinding rtaxed the sewers in of the city and flood-Business is practical-In Covington the root acco warehouse was 10.000 worth of tobacco West Covington opera blown off, as also were veral dwellings in New-

A STARTLING ADVANCE of 25 per cent. in the Price of Cetton Thread.

The Huge Scotch Combine Controls the World and a Further Advance is Expected.

(Halifax Mail.)

Since June ist the wholesale price of sewing thread has advanced \$1.80 per gross of 144 spools. The importers are we've been mistaken for each other. not sure that the advance is worldwide, but that is their impression. The first advance was 50 cents per gross, and a few days ago the further adapart" vance of \$1.30 per gross was declared. One was just before and the other imyet the most of those who had seen the man went out of the barroom mediately after the formation of the gigantic combine lately reported of the thoroughly convinced that Hermann Metz had come back to life. The story The Scotch thread manufacturers. 50 cents advance was felt to be a noof his return spread like wildfire all tice to wholesalers to buy then. The through that part of the town. Men combine includes all the great cotton thread firms-Clark, Coates, Chadwick, who had played checkers, pinochle and Clapperton and others. hurried to the salcon to get a view of A leading importer said to an Evenhim and to verify their superstitions. ing Mail reporter today: "The combine is one of the greatest combinations of look and then fell in a heap. Mike the world. The cotton thread trade of Leonard went up to the apparition and pinched it. It was real, and alive the world is controlled. The combin represents millions of pounds sterling capital and controls a trade aggregating a vast sum annually. It can fix . price for the world and compel us saparill.a A man nearly ran agai to adhere to it. "The price of thread is now \$5 instead of \$3.70 per gross. The thread is handled in Canada by the Central the undertaker, who thought he had burried him. A crowd followed the

agency of Montreal, which is the distributing centre for the dominion. Most of the makes of thread are imported in skeins, and spooled here where the spools are made, and in this way a duty of 12 1-2 per cent is avoided. The duty on spooled thread is 25 per cent., and on skein thread is 12 1-2 per cent. which is a low duty. The difference is designed to cause the spools to be manufactured at home. Some of the brands of thread are imported spool-

ed, but the majority are spooled in for their father. The youngest child, Canada." a girl, went shrieking to her grand-Wood Bros. said the retail price of mother, telling her that "papa had thread was now five cents a reel. The former price was four cents. come back to earth." The old woman went into hysterics at the sight or him. Clark's anchor brand was almost the She and Hermann, her son-in-law, had only cotton thread used in Nova not been good friends. She had made Scotia, different localities had different the charge against him that he had likes. The two hundred yards spool assaulted one of the children. It was was altogether sold in Halifax, while in St. John the three hundred yard caused him to commit suicide. spool was the favorite.

It is believed the combination Paisley thread also control whatever small manufacturers of cotton thread there may be in the United States. There are none in France and Germany. Further advances are looked that they saw a ghost.

(Toronto Paper.)

A few days before the election Mrs. Samuel Sprinkler (she's a dyed-in-the wool little tory is Mrs. Sprinkler) went into Peter Plumtree's cheap cash store up in Simcoe county. (He's an outand-out free trader is Peter Plumtree.)

"Give me two spools of cotton," said Mrs. Sprinkler.

Digby with the Prince Rupert for St. Mr. Plumtree charged her five cents John collided with a freight engine for the cotton and grasped the opporhere this afternoon. The Bluenose tunity to give the little woman a lecwas slowing up and had just rounded ture on the blessings of free trade and the curve before stopping at the stathe terrible iniquity, injury and injustion when the accident happened. A freight train was on the siding at the tice of protection. "Now, you see in a little thing like a spool of thread how the people are defrauded. If we had free trade I car had shunted onto the main line could sell you those two spools for and was running slowly towards the

PROVINCIAL ITEMS. A CYCLING SERMON. the sight of the reincarnated rushed yelling into the street. More than a score of persons were sool lookink into the doors of the saloon. BOOD Grubs are devastating the gardens in and around Petersville, Queens Co. "W-w-when did you-u come back ?" asked the shivering Viemeister.

Messrs. Smith and Wright have b "Only a few days ago, ' said the supgun sawing in their new steam mill at Memel, Albert Co. posed, apparition. "I think that you mistake me for my brother, Hermann, whoi s dead. I'm Louis Metz-his

twin brother. Just dropped in to see you. I think that I've had some ccr-The ladies of the Maugerville Baptist church recently metted \$12 for respondence with you. Now, cen't church purposes by an ice cream social. look scared. It isn't the first time that 1.11 101

The July session of the Albert Co. My father used to put a .hain around prohibition convention will be held in my neck so that he could tell us Oulton hall, Albert, on Wednesday, It was a glib explanation enough, 22nd inst.

Burnham & Morrill have closed their lobster factory at Grand Harbor, Grand Manan, after a good season's misiness. They packed about 2,300 Cases.

On the 10th inst. C. J. Sayre, bar rister, of Richibucto, fell from the loft of his barn to the floor below sustain ing injuries that will confine him to his Rauh, a butcher, came in, took one me for some days.

Rev. Chas. Ketchum of St. Paul's Episcopal church, Boston, assisted his enough to send Leonard careening father, the Rev. Canon Ketchum, in cross the room. The "image" of the services at All Saints' church, St. Hermann Metz calmly drank his sar-Andrews, on Sunday, 12th nim, took one look and hurried up the

tender heart; here inhale her aroma-tics and talk through her to Nature's On Sunday, 12th inst. the members God. stairs of the elevated station. It was of Seaside lodge, No. 9, Knights of a health restorer, a lung tester and a money saver, has few equals. One Pythias, St. Andrews, decorated the graves of their deceased brethren in ghost out for several blocks. The more the town cemetery.

able did they note his resemblance to A thunder storm visited Richibucto Mermann Metz. His moustache had on the 12th inst., the rain falling in the same curl, his head was just as torrents. Windows were broken in a hald, he was the same height, had on the same clothes and walked with the number of houses, and the lightning struck several telegraph poles.

At the 7 o'clock mass at the cathedgear, and sunshine will take the place ral on the 14th Rev. Joseph McDermott of shadow. ceased brother's children. They had and Rev. Michael J. Coughlan were never seen him before and mistook him taken at the right time it may cause ordained deacons by Bishop Sweeny. They will be ordained priests Thursday.

> Rev. I. B. Colwell, pastor of the Baptist church at Hopewell Hill, Albert Co., was unable to fill his appointments on Sunday 12th inst., having been called away by the death of his father at Jemseg. Queens Co.

The ladies of the F. C. Baptist church at Grand Harbor, Grand Manan, took \$120 on Dominion day at a strawberry festival, and the ladies of and proves a snare rather than a North Head took \$105 for church purblessing to me.

The ladies of Westfield in connection with Trinity chapel school held a successful entertainment at Day's landing on the 11th inst. by which they raised \$60 towards paying for an Two Trains Come Into Collision but rightly used. organ.

> The strawberry festival and entertainment in St. Jude's Sunday school room this evening will be a first class affair and should be liberally patronized. The ladies of this church are noted for their hospitality.

The King's Daughters of South Bay will hold a strawberry and ice cream social this (Wednesday) evening in the South Bay hall. A first class musisanctimonious and ancient folk cal programme has been prepared for lifted up their hands in holy horror the occasion. that a person should descend to such

s of the Bantist church

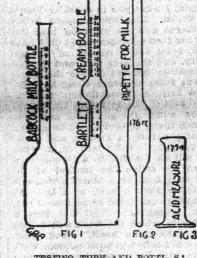


MILK AND CREAM TESTING.

ription of Approved Apparatus for Making the Babcock Provings.

"The wheel, while revolutionary, is The dairy department of the Michtevolutionary. It has created for itgan Agricultural Experiment Station has been making some interesting tests sell a position, and a large one, in the social sphere. L'essings innumerable of the comparative richness of the milk follow in its wake. It is the evangel of cows there. The results, with the method of testing, are published in a of the age. Like mercy, it blesses him who rides, and the one who looks on bulletin. Cuts of the aparatus used are wishes he had a wheel. In these days printed in the bulletin. Some of the of nervous strain hustle and bustle cuts, with accompanying descriptions, and keen competition, the wheel has are as follows:

become like Longfellow's "Evange-"The test here described was the invention of Dr. S. M. Eabcock of the Experiment Station of the University of Wisconsin. The test bottles used are



TESTING TUBE AND BOTTL S.

disease of various kinds. Disease is shown in Fig. 1. They are made on physical, moral, spiritual. Excessive heavy glass and should have a capa. wheeling produces certain physical up to the neck of not less than 40 cubic types of disease, and unseasonable centimeters. The is aduation on the neck extends from zero to 10 per cent. wheeling producs certain moral and spiritual ailments. I am aware that The division on the necks of the botit is largely a question of conscience and motive. The Scripture precept is tles should be uniform, and the line should be parallel. These lines should Whether therefore you eat or you drink be blackened to be easily read. If by or whatsoever you do, do all to the glory of Gcd.' If, then, my manner use and washing the black disappears from the lines, it may be restored either or time of wheeling is not to the glory by a lead pencil or by rubbing with of God, it is my duty to give it up or that part of it which dishonors God

black ink or other dark compound. "Care should be taken in purchasing the bottles to secure them from reliable parties. They should be made of strong "There are two extremes to watch glass, and the graduation must be cor

against in this question : First, old reotly made. "The pipette for measuring milk (Fig. 2), should hold 13, cubic centifogyism; and, second, lawlessness. It is not possible for him to attain the highest ideal who violates physical, meters when filled to the mark upon its moral or spiritual law, but none of neck. The opening in the lower end of these need be broken if the wheel be the pipette should be large enough allow the milk to flow out rapidly and "I stand beside the wheel, and it the upper end should be square across whispers, 'Son of man, suffer me to put and not bell shaped. It is absolutely essential that the pinette should con-tain exactly the required amount of unto your ear four useful lessons for daily use.' The first is, keep trying. Here I am reminded of the first time milk. The dairyman should purchase it of a reliable firm as a guarantee of I tried to mount a wheel. After a great deal of ungraceful gyrations, profuse perspiration and 'Ah! ah!' its accuracy.

"The acid is measured usually by means of a small glass cyclinder, shown in Fig. 3, holding 17.5 cubic centimefrom the perspiration, contortions of clothing and wounded feelings, I succeeded in the control of that fitful thing, and that in spite of a few ters. Simple and rapid measures of im-

proved pattern 7 are now offered at prices which put them within reach of owners form is shown at Fig. 4. "Two of the of dairies. many different styles of the cen machine trifugal in which the bot tles are revolved are 

Figs. 5 and 6. It

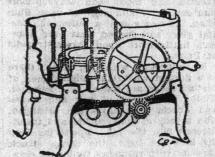
orrosive sublimate. Mix three parts of bichromate of potash and one of cor rosive sublimate together and put quantity the size of a pea into the mix 4 samples of milk. These chemicals are poisonous. The samples are taken v 1.31 the little instrument called a milk thief. taken from the pail as soon as the milk is drawn. Reach the tube down to the ottom of the pail.

The chemicals cause the milk to turn a yellow color. Before you begin to make the test for buter fat stir the samples thoroughly, so as to mix the milk and cream evenly.

"When the milk has been well mixed, the pipette is taken between the thumb and the second and third fingers of the right hand. The point is inserted into the milk, which is sucked into the pipette by applying the mouth to the upper end. When the milk has reach-ed a point midway between the mark stem of the pipette and the

mouth, the forefinger of the right hand is placed quickly over the upper end of the pipette as it is removed from the mouth. By gradually rolling this index finger to the right or left a small quantity of air is admitted, and the milk gradually flows out. Be careful to have both the forefinger and the pipette dry. Stop the column of milk when the upper line is even with the mark on the stem, holding the pipette vertically over the milk from which the sample was taken and on a level with the eye. Next place the point of the pipette in the month of one of the Babcock test bottles, and by removing the finger from the upper end allow the milk to flow into the test bottle. Do not hold the latter vertically, but at an angle with the horizon so that the milk will flow down one side of its neck. After the milk has run out of the pipette blow out the last drop into the test bottle.

"The acid is then measured in the acid measure and carefully and slowly poured into the test bottle, allowing it to flow down the side of the neck. To mix the acid with the milk take the bottle by the neck and shake it with a horizontal rotary motion to prevent the curd which first forms being thrown up into the neck of the bottle and to insure the complete dissolving of the milk by the acid. As soon as a sufficient



## FIG. 5. - TESTING MACHINE.

number of bottles have been thus treated place them in the centrifugal machine, and after the cover is put on whirl them from 700 to 1,000 revolutions a minute, according to the diameter of the wheel.

"After whirling the bottles five minutes in the centrifugal machine the cover is removed and by means of a pipette or other apparatus hot water is added to each bottle until the fat is forced up into the neck nearly to the 10 per cent. mark. The cover is then replaced, and the bottles are whirled for one minute longer. A convenient arrangement for adding the hot water is to hang a pail above the machine and siphon the hot water out of it by means of a rubber tube one-fourth of an inch in diameter, provided with a pinch cock. In the lower end of this tube is a short piece of glass tubing drawn to a small bore at the opening to convey the water into the bottles. All the fat in the milk will be found after the second whirling in the neck of the bottle. To measure this fat a pair of dividers is recommended. "Throughout the progress of the test, after the addition of the acid to the milk and when the per cent. of fat is read, the bottles must be warmer than the melting point of butter fat. When many tests are made at a time, a suitvessel should be provided to hold able the bottles in upright position in hot water until the fat is read. A tin box

the brooding over this which had Louis explained who he was, and then went his way. He is a musician, connected with a travelling theatrical company. He had been in the west for several years and none of the Williamsburg community had ever seen him. There are many who still believe ACCIDENT ON THE D. A. R.

gathers from it nerve force, magnetism and alertness, even though it has sometimes the unfortunate knack of divesting the gay of equilibrium and the grave of dignity. If your friend be blue, black or cranky, by all means buy him a wheel, and the mists will roll away and the crank give way to

line." who carried refreshment to the weary toilers in the harvest field. It bears us as on eagle wings from the fret and worry-away from the fumes and smoke-into the beautiful country, where we may talk with nature. and "find tongues in trees, books in running brooks, sermons in stones and good in everything,' Here, too, the

Into Blessings.

MODERN WHEEL

the Machine in the Hands of the

Thinking Rider - Difficulties Turned

lungs may drink in wholesome draughts

of Dame Nature's pure ozone. Here

prostrate one's self upon her motherly bosom and hear the pulsations of her

"In a word, the wheel, as a tonic,

"But, good as medicine is, if not

WEEKLY SUN, ST. JOHN, N. B., JULY 22, 1896.

ONDON.

nith Honored by the Queen.

**Conference** Postponed Till Can be Heard From.

15—Sir Donald A. Smith Mr. Laurier's cabinet : here as one of remarkof the highest charac-"Mr. Laurier's speech the Empire at Montreal satisfaction. I expected him. I am no party I knew Mr. Laurier to -hearted Canadian." that Sir Donald A. der his resignation as oner, if he has not alleaving Mr. Laurier to ntinuing in office, if he

Daly and Archbishop or Canada by the Par-

the Pacific cable conferponed till October prim-Mr. Chamberlain thinks the liberal government Imperial projects should before further progress

uly 15.-A despatch to London says: " The lib-Canada is already haveffect upon the new imhich Secretary Chamd practically at the incountry. Mr. Chamberit is unwise to proceed erial projects until the the new Canadian govnown, and he has posttific cable conference till rs are entertained lest a from San Francisco via New Caledonia should nto the field. Secretary also has informed the ral of Canada that he views of Mr. Laurier to the Allan line the fast steamship service la and England, which hope will, with the aid Canadian subsidies of the St. Lawrence, in-York, the British mail route to Chicago, the and possibly also the

15.-Sir Donald A. ay invested at Windsor night commander of the Ichael and St. George.

N HEADQUARTERS.

Ohio, July 15 .- The retive committee has dete its headquarters in rk and Chicago. There rimination between the selecting either as the ers. Chairman Hanna e located nowhere, but mpaign in the saddle.

THE WEEKLY SUN.

of eggs would buy six spools instead of four now. See how you are taxed to keep up this tory government." A few days after the election Mrs. Sprinkler called to get another two spools of cotton.

as for you.'

netond of five

"I suppose they're two for three cents now we've got a change of government ?" "I am sorry to say I'll have to charge you eight cents for two today. Mrs.

Sprinkler." "Why, man, dear !" gasped the little woman, "you must be a hardened sinner and a bad old man. Don't you feel

guilty to say such a thing without blushing after the free trade lecture you gave me before the election ?"

has formed in England, where spools are made. The elections have nothing to do with it: it's bad for us, as well

"But England's a free trade country, town, Pa., today. He was in his 82nd and you always told me protection caused combines and high prices ? I past.

eggs buying half a dozen of spoors. He said it was all rot. Now he will laugh at me. He'll call me a silly little fool for listening to you. I can almost imagine the hens cackling and our old rooster flapping his wings and and the latest news of the passengers. crowing, 'How many spools did Plum-He held the position of manager of the tree give you for your dozen of eggs today?' Never you talk such nonsen to me again, Mr. Plumtree. Two spools and a cent's worth of candy for a dozen eggs; and this is what you call-

ed the blessings of free trade as they have it in England. Good-bye.'

LIVE GHOST SEEN.

committed suicide more than a year ago, yet many of his old acquaintances solemly aver that his ghost stalked among them last Monday and looked them squarely in the face. The reincarnation of Herman Metz walked into the saloon of Charles Viemeister, at Broadway and Chauncey street, in the eastern district of Brooklyn, and looked quietly at the proprietor. Viemeister had been a friend of Herman Metz for years. The saloon keeper had been to the Metz funeral, and had seen his friend's body after an autopsy had been performed upon it. Herman Metz was dead as a coffin nail. The bartender looked up and saw Hermann Metz standing before him.

Viemeister leaped backward and sent half a dozen cut glass goblets crashing to the floor. 'How to do, Charlie," said the sup posed spectre with a grin, and held out a skinny hand over the bar.

"Good God !" said the saloon keyper, turning alternately red and purple "Can it he that the dead has risen ?" The reincarnation of Hermann Metz said, in a light and cheery tone, that he would have a little sarsaparillathe same drink that he always affected in the flesh. Then he took a turn around the barrom and began a yodel. such as Metz used to sing in the old

A dry goods clerk walked in, and at Leonard P. D. Tilley proctor.

Here you see the beauty of free trade. A dozen the impending danger, but could not stop their engines in time to prevent the collision.

passenger train. Both engi

'skat" with Metz in days gone by

they looked at him the more remark-

Loius Metz, who was really the twin

brother, went to the house of his de-

None of the Passengers Injured.

Wolfville, N. S., July 14 .- The Flying

Bluenose passenger train from Hali-fax to Yarmouth that connects at

same galt.

The passengers in the Bluenose were shaken up a little and one of the engineers slightly cut, but otherwise no cre else sustained any injury. Both engines were derailed and considerably broken. An engine was immediately sent here from Kentville, and

after the fires had been drawn and the engines got back on the rails they were pulled on to a siding. The bag gage car wis also slightly damaged.

DEATH OF W. C. LEWIS,

The Pioneer Ship News Collector of 'I'm very sorry, but a great combine the United States.

> New York, July 15 .- The death of Walter O. Lewis occurred at German-

year and has been ailing for some time told Sam what you said about a dezen

(Walter O. Lewis was the pioneer of "ship news" in this country. He was the first to devise a means of obtaining from incoming vessels, while yet practically at sea, a chronicle of the trip Associated Press Marine News department for more than a quarter of century, and when he retired he was succeeded by his son, A. W. Lewis.

Another Week's Sudden Deaths.

New York, July 9.-Hermas Metz

If the situation were not so serious one might say in the matter of sud-den deaths from heart failure that each week is a record breaker over that which has preceded it. There never was a time when greater need existed for hoisting the red flag of danger, and appealing to men and vomen in all conditions of life to keep within convenient reach a bottle of

Dr. Agnew's . Cure for the Heart. With the slightest symptoms of heart trouble relief is secured within a half an hour of using this medicine. The case of Mr. L. W. Law, of Toronto Junction, who suffered from smothering spells for eighteen months, being permanently cured by this great medi-

cine, is only one of thousands of instances that could be cited. SIR LEONARD TILLEY'S WILL.

In the probate court on the 14th the will of the late Sir Leonard Tilley was probated. The real estate is entered at \$18,835 and the personalty at \$19,-

201. Lady Tilley and James Belyea are executrix and executor. The property is left to Lady Tilley and upon he death to his children. There are a large number of bequests, aggregating about \$18,000, among which are the Diocesan Church society, \$1,000, clergy superannuation fund, \$1,000; British and Foreign Bible society, \$500; and Y. M. C. A. of St. John, \$1,000. There are

among these bequests to the children. moved the injured eye.

Newcastle Bridge, Queens Co., held a successful concert and social, realizing \$22, on the 4th inst. Among those who took part in the programme were Miss Alice Tapley, Zillah Yeamans, Marion Libby, Bertie Libby, Lida Bailey, stripped. Hollie Bailey, Bertha McGill and Miss

Munroe.

During a thunder storm at St. Andrews on the 11th inst. a house at the west end of Water street was struck by lightning, which entered the roof close by the chimney, down which it ran into a bedroom, tearing away the wooden sheathing and severely shocking Miss Fortune, who in falling cut her head on a trunk. She was unconscious for some time.

At the ratepayers' meeting Monday night it was unanimously decided to borrow on town debentures the sum of twenty thousand dollars, for the following services: \$8,000 for schools \$10,000 for water, and \$2,000 for fire .-Amherst News.

W. H. Love, of the firm of Scott, Lawton & Love, has received a dip-loma and bronze medial from the World's Fair commissioners for his splendid exhibit of the different kinds of buttons used in the British army and naval service under the old numerical system.

Owing to the great delay caused to the express trains by the demands of the strawberry trade, the D. A. R. has put on a special berry train between Kentville and Wilmot. At the latter point loaded cars will be attached to the regular train. The berry train runs on boat days.

The adopted daughter of John Dixon of Point de Bute, N. B., attended a missionary meeting in the Baptist church, Upper Point de Bute, Sunday evening, in apparently good health. A few moments after entering the house on her return she suddenly expired. Heart disease is supposed to be the cause .- Press.

The Nova Scotia schooner Trader of Shelburne, Capt. Swim, cleared for helburne on Saturday and sailed Sunday morning. Captain Swim is a man fifty-six years of age. He is hale and hearty apparently as he was thirty years ago. He has made 108 voyages to the West Indies, and 60 voyage master, and seems as interested and persevering as ever.-Portland Press.

A serious accident occurred in Carleton on the 14th instant, by which James Galey, the well-known millman, was badly injured and lost the sight of one of his eyes. He was standing near a rapidly revolving circular saw, when a splinter flew from it and cut terrible gash over the eyebrow and cutting into the eye itself so that it was almost torn from the socket. Dr. White was summoned and dressed the wound. Dr. Mcrrison, the specialist, who was called to attend him,

on my body of 'keep trying.' "The next lesson the wheel whispers is 'keep moving.' We certainly shall come to grief on a bicycle unless we keep going, the same as it is necessary to do in life, in order not to be out-

an indignity. To this day I bear marks

who

"Yet, again, the wheel whispers 'keep clean.' By use the wheel becomes cor-roded and splashed with mud, and to do effectual work must be kept clean and often olled. Paul wrote, 'Keep thyself pure.' So our souls need the anointing of the spirit. Keep thyself pure in heart, in life, in thought and in purpose.

"My wheel whispers finally 'Keep sweet., In wheeling our temper is sorely tried, because of the humiliation of tumbling. Our advantage is to smile at the steel steed's peculiar moods. There are many things which tend to toughen us, yet happy is the man of contented spirit. By a little manage-ment we are soon able to turn difficulties into blessings:

"In the spiritual world we often hear one denomination criticizing another. Churches are like wheels, with various advantages, perhaps, for each. The wheel bids us aim at the cultivation of a wellirounded life, and to seek to guide our lives to that end."-Rev. T. Auriol Hughes, in the Fifth Baptist Church, Boston.

The Size of the Sun.

The sun, provided we measure only the disk seen with the smoked glass, is eight hundred and sixty-six thousand miles in diameter, i.e., one hundred and eight earths could be comfortably ranged side by side across the disk. To cover the surface would require many thousands. To fill the interior we should need one million three hundred thousand. On a smaller scale w night represent the sun by a ball two eet in diameter and the earth by a good-sized grain of shot. Let the sur be hollowed out, then place the earth at its centre, and let the moon revolve about it at its real distance of two hundred and forty thousand miles. There would yet remain nearly two hundred thousand miles of space be tween the moon's orbit and the inclosing shell of the sun. Indeed, to journey from one side of the sun to the other, through the centre, would take one of our swift express trains nearly two years and a half. So vast a globe must be heavy. Since its density is only one-quarter that of the earth, it only weighs as much as three hundred and hirty-two earths, or two octillions of tons ? The attraction of gravity on its surface would cause a man whose weight was one hundred and fifty oounds to weigh two tons .- Alden W. Quimby, in Ladies' Home Journal.

Bike and Bloomers.

Women will take no part in races controlled by the League of American Wheelmen. That national organization has issued its prohibition in the matter, and notifies track managers who permit women to race that they will be promptly blacklisted. The Canadian wheelman's Association has followed suit. The wisdom of this move can scarcely be questioned.

is essential that Fig. 4. Acid Measure. the bottles should be made to revolve at sufficient speed. If the horizontal wheel, to the rim of which the pocket holding the bettles are attached, is less than 15 inches in diameter, it should be made to revolve at 1,000 revolutions a minute. If the wheel is 20 inches in diameter, the number of revolutions may be reduced to 700 per minute.

"When purchasing a hand machin it is better to get one driven by cog gear rather than by friction. A given number of turns of the handle will then invariably secure a definite number of revolutions of the bottles.

"In the purchase of a power machine for a factory, see to it that the vertical shaft to which the wheel containing the bottles is attached is made to project through the cover far enough to permit the use of a speed indicator or some arrangement whereby the speec may be determined. The low readings of fat in some creameries are undoubtedly due to the fact that the machines are not driven fast enough to bring all the fat to the surface and into the necks of the bottles. The pocket holding the

bottles when revolving should be in the plane of the wheel and not in box es soldered on the sides of pieces o zinc or tin. "The acid used is the ordinary con mercial oil of vitriol or sulphuric acid having a specific gravity of 1.82. If the acid is too weak, it will not dissolve all of the curd, and a cheesy substance will be so far mixed with the fat in the neck of the bottle as to render correct reading impossible. If the acid is too strong, it will blacken the fat and leave a charcoal-like substance floating with the fat on the neck of the bottle rendering correct reading equally im-possible. If the acid is slightly too weak, that difficulty may be overco by using a little more of it. If only a little too strong, that difficulty may be partially avoided by using slightly less acid or by having the milk and acid both cold when mixed. Sulphuric acid has a great avidity for water and must be kept in a tightly stoppered bottle, the stopper being either of glass or rubber, as a common cork is soon destroy-ed. The dairyman with only a small herd of cows can obtain sufficient ucid from the local druggist at a low price; the factory may purchase it at whole. sale in carboys at a price still lower. The carboy should be kept in the original wooden box in which it is received, and as tightly covered as possible. The acid is very corroding and must be

handled with extreme care." It is best to test the milk of a cow for several milkings. Mix samples or the different ones together. They may be kept from souring and surdling by a mixture of bichromate of potash and

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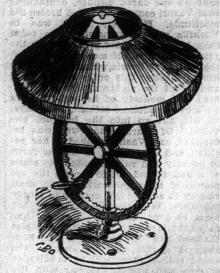


FIG. 6. - TESTING MACHINE.

by 9 and 7 inches deep is used in the station dairy room with good suc-

"As soon as read the contents of the bottles are emptied into some receptacle which is not injured by the acid, and the bottles repeatedly washed out with hot water. They must be kept clean by thoroughly rinsing after each test, and not infrequently the necks of the bottles should be swabbed out with a brush made especially for the purpose or with a piece of cloth wrapped about splinter of wood."

Quality of Milk.

An interesting experiment for the butter dairyman, showing the compara-tive cream capacity of his cows, is to fill a tumbler or glass jar with milk from each of his cows and allow them to stand in a proper temperature until the cream is all raised. He will be surprised to note the difference of volume in cream from cows of the same breed, fed and treated in precisely the same manner. A still greater difference will be observed in milk from different breeds giving a large quantity and from those noted for rich product.

There is a loud call for the butter dairyman to investigate the capabilities of the cows he is milking. Let him prove by actual test and inform himself positively which of them is paying and which he is harboring at a oss and unsuited to his business.

