A New Ballad Composed by STEPHEN MASSETT.

THE LETTER THAT MADE HER MINE.

Chat With the Woman ho Keeps the Eccentric Genius From Want.

MANAGES THE ESTATE

the Count Considers Himself Only a Guest at Her Home.

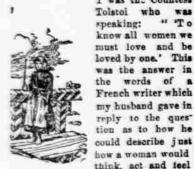
PROPERTY DEEDED TO A BABY.

low Writing Philosophy and Says His

Novels Are Nonsense.

HIS WIFE HAS SLAVED FOR HIM

CORRESPONDENCE OF THE DISPATCH. 1 TULA, July 19. T was the Countess



know all women we must love and be loved by one.' This was the answer in the words of a French writer which my husband gave in reply to the question as to how he could describe just how a woman would think, act and feel

any and all circumstances." were sitting about the samovar in the g room of the Count's home at Yasnia shout the great Russian novelist. The t himself was far off in the interior, from the railroads, in company with laughter, taking care of the sick and tarving peasants, and his wife and the er children were on the estate alone. a long trip from the lower part. Volga to Moscow I had stopped over rain to pay my respects to the Count, with Dr. Hubbell, the agent of the Red. , had been received most kindly by the tess. We had walked over a part of the



Count To'stei as He Looks To-Day together, had visited the peasants in homes, had eaten supper around the v table, and now in answer to my questhe Countess was giving me bits of and fact about her husband's intel-

To stol Poesn't Talk of His Books,

he Count himself," said she, "does not to talk about his novels or his writings, I beg you if you should write to him not He is always enthusiastic while at but when the work is finished he is the publisher's. He does not like to about himself, and if any one persists sking his writings the subject of the heave the room."

tew words about the Countess. my mind quite as interesting a charac-I imagine it would rank in its inter ing stories with that of Jane Welsh, the of that other philosophic genius, mas Cariyle. She has for 30 years been se ter halt of Tolstei's great soul, and s to-day the balance wheel which, as as passible, holds him in check and a keeps him and the family from the rty of the peasants. A good wife and har mother, she it was that prevented erty to the poor, and she it is who manages the estates, attends to the ention of the children, takes care of all netails of her husband's affairs and his and at the same time cheerfully and he would lay out for himself and his

Wrote With His Wife as the Model. be Counters impresses you at first meet-

as a weemen of remarkable strength of noter. She is tall, well formed and fine ng, and though she has a son 29 years er cheeks are still rosy, and the gray



hardly begun to show itself in her miant dark hair. Her eyes are dark, ght and full of intelligence, and her race full of kind feeling. She is a clever con-rectionalist, and she speaks English ently with a slight Russian accent. She womanly woman in every sense of the rd, and the ideals of womanhood as em-died in Tolstoi's best characters are taken for him during their 30 years of mard life have never been questioned, and studies of women have been made like hen's paintings, with his wife for his

During our conversation I asked the untess where Tolstoi got the character ina Karenina, and the Countess sister, untess Kousminski, replied that it was grely taken from the Countess. Madame e in part, and again it is not true at all. everywhere and nowhere in my hus

Does the Count write rapidly?" I asked. do not think he can be said to produce rapidly," was the reply. "He is very but as to the character of his writings, believes the world would be m er off if many of the writers of the

possible, and he objects, as a rule, to having them published. He enjoys his work as he composes, but a great part of the wear and tear comes in the revision and correction. He revises his writings again and again, and he never corrects his own manuscript, but he must have a new copy made for him on clean paper. He is not "a very legible writer, as you see from his note books, and he writes on all sorts of paper. He picks up anything that comes to hand when a thought strikes him and writes it down upon it. A large part of the two novels 'Anna Karenina,' and 'War and Peace' were written on the backs of envelopes, half sheets of note paper torn from short letters, and some of his best thoughts have been penned on the backs of old pieces of paper upon which the children have been drawing pictures and have thrown away. For this reason it is hard to preserve his manuscripts, and such as we have are stored away in the museum in Moscow. After my husband has written his manuscript it is copied for him. For years I copied again and again everything he wrote and now my daughters do it for him. I can't tell you how many times I copied parts of the novel 'War and Peace' for revision and re-revision, but I know I copied the completed story seven times before it was brought into the state in which it went to the printers."

"Does he ever speak of the 'Kreutzer Sonata,' and is he, as has been reported, writing a sequel to it?"

Tired of the Kreutzer Sonata.

writing a sequel to it?"

Tired of the Kreutzer Sonata.

"No," replied Count Tolstoi's wife, "he has no intention of writing anything more



A Disciple of the Gentus

along those lines. He said to me, speaking of the 'Kreutzer Sonata,' not long ago: 'Please don't mention that disgusting story again; I am sick of hearing about it.' I don't think he will write another novel. He is devoting himself to philosophical essays upon his peculiar ideas of what society and life should be, and he regards fiction as nonsense and folly. He is now working on a large treatise against war and working on a large treatise against war and in favor of nationalizing society and Gov-ernment. He is a totally different man

"Then there are two Tolstois?" said I.
"Two?" replied the Countess. "There are not only two; there are a bundred. The Count changes every day, and you can never tell what he will be next. He is earnest and honest in his beliets, and he is almost forced to do what he thinks to be

right.
"Of late years, however, he has been more tolerant. He thinks we are wrong, but he permits us to lead our life, and he leads his, conforming as much as he can to ours.
There are many things I would change if I could, but I must do what is best for him and for us.'

These words were not uttered in a complaining tone, but merely as a matter of fact about a condition that must be made

the money among our poor if we had it, but the Count thinks it is not right. He would not feel happy if we took it, and anything is better than discontent and trouble in one' for it?" one's family."

The Czer's Opinion of Tolstol. "How does the Emperor regard Count Tolstoi?" I asked.

Peculiarities of the Count.

As the Countess said then, I thought that there were few American wives who were truer and kinder to their husbands and their families than she was, and this fact became the more apparent as she went on to describe some curious features of the Count's present life. Everyone has heard

"He considers him honest and earnest in his beliefs and in his life. He does not look upon him as a revolutionist, and he has told the Government officials that the Count is an honest man and they must not disturb him. Many of the officials do not like my husband, and they think he is entirely too liberal in his actions and in his booka."

They were selling at the rate of from "He considers him honest and earnest in



A SNAP-SHOT AT THE TOLSTOI PEASANTS.

of his thousand idiosyncracies; how he believes every man should work enough with his hands every day to supply his neces-sities; how he makes his own boots, and how he would, if his wife would let him, make his own clothes! You have read how he lives on the simplest of vegetable food; how he wears the garb of a peasant, and gives without stint to all who ask alms! You have heard how he objects to man using force against man under any con-ditions, and how he could not conscien-tiously resist if himself or his family were assaulted. He pays no attention to his estates, and the management of them and the education and training of his children are entirely left to his wife. She has hun-dreds of peasants on the estate to look after, and with her family of nine children she has, I judge, all she can do to make both ends meet. That she does make them meet ends meet. That she does make them meet is only due to a remarkable executive ability and not to the literary work of the Count. I asked the Countess to tell me if it was I asked the Countess to tell me it was really so that Tolstoi would accept nothing for his works. She replied that it was true, and that he had accepted nothing from his publishers for years. "He does not think an author has any right to accept money for the products of his brain," said she, "and the only money we have had for a long time from his writings came from a comedy en-titled 'The Fruits of Civilization,' which had quite a run in the theaters of Russia last season. He had relinquished his royal-ties to this to the Government, and these amounted during that time to 6,000 rubles, or about \$3,000.

The Proceeds for Tamine Sufferers. "During the present famine it seemed to me to be a shame that our peasants should be starving and that this money which we could use so well should be kept by the Government. So I wrote to the Government officers in charge of it asking them to let me have it for the ismine. They replied that I could have it if I would promise that every bit of it should be used for the famine and thus I got it." "Has Count Tolstoi ever gotten any money from his American sales?" I asked. "Hun-dreds of thousands of his books have been

"Yes," replied the Countess, "there was "Yes," replied the Countess, "there was once sent to us from America a check for \$400, and this is the only money we have ever received for any of the Count's books sold outside of Russia. I did not think it best to send back the \$400 and I gave it to the poor among my peasants. I do not agree with my husband about the receipts team his books and if he thought differents from his books, and if he thought differently concerning them we would have enough money and to spare. If we received a sin-gle kopeck (about one-half a cent) from each copy of his books that have been sold we would be very rich. As it is, we are poor. Not poor, of course, like our peas-ants, but poor for our condition in life. The Count Is a Great Reviser.

'He holds on to his own works as long as a carriage. We could do much good with

4,000,000 to 5,000,000 a year, and their sale was rapidly gaining up to a short time ago, when, as Countess Tolstoi tells me, the Government stopped their circulation. She does not think the Government is anxious to educate the peasants, and she says that the peasants' school which had been established on the estate and which was taught by her daughter had been closed by the

e ler of the police.
"No, I think not," was the reply. "They take advantage of his good nature, and I can do nothing with them. They choose the best places for the grazing of their own stock. They do as little as they please and take what they please from us. I may object, but they say, 'Oh, the Count will not do anything to us,' and the result is the estate is very hard to manage. It has been deeded over to our youngest son (a boy about 4), as is the custom as to the family estate or homestead in Russia, and I am his guardian. The Count Tolstoi was the youngest son of his father, and in this way he estate came to him.

The Wife Chose the Wiser Course, Chatting in this way we walked over the village, then visited the gardens where the Countess raises all sorts of fruits and vege-Countess raises all sorts of fruits and vege-tables for her family, and after walking through a magnificent forest along paths shaded by tall birch trees whose beauty re-minded me of the famous cryptomeria trees which line the road to the shines at Nikko, Japan, we found our way back to the house. The Tolstoi estate contains about 2,500 acres of arable land and forest, and its woods acres of arable land and forest, and its woods are wild, romantic and beautiful. It was given to Toistoi's grandfather by Catherine II, as a reward for his military services, and though not a large estate for Russia it is a very fine piece of property. As it is today Toistoi resides upon it rather as the guest of his family than as its owner. He would sell it to-day if his wife would consent and give the proceeds to the poor, and as the wise wife and good mother that she is refuses to do this he has wached his hands, as it were, of all responsibility concerning

it were, of all responsibility concerning His action in wishing to give up his property was undoubtedly due to a sense of duty. Here in insisting upon keeping him, her family and herself from dirt, poverty her family and herself from dirt, poverty and starvation was also from the action of the same sense, and as we drove in a rude droschky through the moonlit forest to the tanin last night I could not but think that of the two she has chosen the nobler and the better part. Her life as it is can hardly be one of rest and roses, and her sacrifices, cheerfully made, though they do not include the wearing of sackeloth and ashes, are to my mind greater than his. Tolatol is giving up much for his own ideas. His wife is giving up all for him.

FRANK G. CARPENTER.

FRANK G. CARPENTER

FURNITURE packed and stored. HADER & EXEMAN, 28 Water street.

ASCENSION'S LESSON

Why the Apostles Were Deprived of the Savior's Visible Presence.

THE LOCALIZATION OF WORSHIP.

Without Tangible Personality the Spirit

(WRITTEN FOR THE DISPATCH. It was best for the apostles, and through them, for us, that Christ should go away. His ascension was for our advantage. This, se declared plainly: "It is expedient for

At the thought of Christ's departure sorrow filled their hearts. We, too, find that a hard saying. We are accustomed to account the apostles to have been more highly favored than we are, because they touched the hands of Christ and heard his voice and had the blessing of his visible presence. How, indeed, could anything be better than that! To walk with him who is the Way, to learn of him who is the Truth, to live with him who is the Life-what a privilege un-

spenkable!

The Critics and the Commentators. And the critics discuss the authorship of these old histories, whether Matthew and Mark and Luke and John really wrote them or not, some saying "yes" and some "no." And the commentators debate the meaning of the words, some holding that their interpretation represents what Jesus really taught, and others denying it, and offering quite a different interpretation. And in the midst of these contradictory voices, what wonder is it that we grow confused. and Christ seems very far away, and the teachings of Christ very uncertain? We look back to that old day when Jesus spoke to men at first hand, when there were no critics and no commentators, and men could see with their own eyes, and hear with their own ears, and ask questions and get an-swers; and we think that they had a better chance in Capernaum than we have in Pittsburg, to know the truth of God. What did Jesus mean when he said, It is expedi-

any Holy Ghost; but beyond that, what shall we say?

We know, of course, that in all instruction there is need, from time to time, of a change of teachers. Sometimes because we have outgrown the teacher, and have learned his truth; sometimes because we but that God is a spirit, and whoever any-

Everywhere Manifest.

SERMON BY THE REV. GEORGE HODGES

you that I go away."

The apostles found it hard to believe that.

Think of it only in its relations to truth. How many uncertainties seem to come in between us and real knowledge of religion! It is true we have the Bible. We have the record which Matthew and Mark and Luke and John made. They said that Christ said this and that. But the words come to us, at best, at second hand. And then there

ent for you that I go away?
We do not seem at first to get much sat-We do not seem at first to get much satisfaction from the explanation which he gave of the advantage of his ascension. For if I go not away the Comforter will not come unto you; be if I depart, I will send him unto you. We understand, of course, that the Comforter is the Holy Spirit. But the vaguest part of our common theology is that which concerns the Holy Spirit. God the Father, we are able to think of; and God the Son, we know; but what ideas have we about God the Holy Ghost? We are a little wiser than the people in Ephesus, who had not even heard whether there be any Holy Ghost; but beyond that, what

The Seen and the Unseen. At least, we know this; that Christ could be seen, and the Holy Ghost cannot be seen; Christ spoke in a voice that men could hear, but the voice of the Holy Ghost is mingled indistinguishably with the voice of our own heart. Perhaps the truest thought that we think about the Holy Ghost is that the Holy Ghost is God speaking in man's conscience. But what a vague thought that is! Christ goes away and the Holy Spirit comes in his place; the visible is changed for the invisible, the audible for the innudible, certainty becomes uncertainty. If we had certainty becomes uncertainty. If we had Christ here to speak, we would know what he said; but we cannot be sure what the Holy Ghost says. And yet it is expedient that Christ should go away. How can that

weary of the parson.

God is always changing our instructors.

He teaches us by the lips of men who have their day, and give their message, and for an hour take the great class of the race, and then the bell rings and the teacher's time is done. The philosophers, the saints, the preachers, the poets, the politicians, the soldiers take their turn at teaching us. And "God fulfills himself in many ways, lest one good custom should corrupt the world."

Could Not Understand His Return. It may be that Jesus felt that the apostles of his visible presence, and that it would be expedient to teach them now in the

different lessons of his invisible present For Christ is the pre-emineut teacher. There is no danger that we will ever grow weary of Christ, nor is their any likelih that we will learn the whole of the truth of Christ. But Christ, knowing our need of change, changes his ways of teaching. It is true that he said that he was going away, but he said also that he was coming back

again.
"A little while," he promised them, "and ye shall see me, because I go to the Father." They could not understand that, but they came to know by and by that it was Christ's assurance of continual and never-ending abiding with them. He went away that he might return in another form, and thenceforth be closer to them than ever. The Comforter then, whom we call the Holy Ghost, is really the abiding Christ; the Spirit is the spirit of Jesus. The asbetter way of spiritual teaching. We can see that, in this sense, it was expedient for us that he should go away. Faith Is Better Than Sight,

We know also that there is a difference between faith and sight. Faith is better than sight. "Because thou hast seen me thou hast believed." Christ said to Thomas: "Blessed are they that have not seen and yet have believed." Faith is better than sight, because it is rarer, and more difficult, and depends upon the action of higher faculties of our nature. It is different from sight very much as writing poetry is different from sawing wood. Anybody with a fair measure of strength of Anybody with a fair measure of strength of body can saw wood. And anybody with eyes can see. Sight does not depend on wisdom. But a brain and a heart go to the making of a poem. And a brain and a heart are needed in the right recitation of a creed. Sight is the recognizing of the outside of the visible part of an event. Christ heals the sick, and all who stand about Him see the wireole and thus have sight. But see the miracle, and thus have sight. But they who have faith see Christ, and have no need of a miracle to point Him out, nor to tell them that He is wise, that He is onderful that He is divine. Faith is the recognition of Christ without the help of sight at all. To-day, though the face and form of Jesus are altogether invisible, the believer, absolutely without a glimmer of sight, recognizes Him, put his faith in Him

Depends on Spiritual Faculties Sight is a recognition of the face; faith is a recognition of the heart. The highest kind of recognition is the recognition of personality, of character, of the real self, of the heart. And that depends on spiritual faculties. To know a good man when we meet him is an achievement which cannot be accomplished unless we have some de-gree of spiritual kinship with him. Only he good can really know the good. Faith, accordingly, depends on character, and therein is immeasurably superior to sight, which depends on nothing but good eyes. Thus Christ went out of the sight of His Thus Christ went out of the sight of His disciples that they might have opportunity for the exercise of the highest kind of faith. We can see that, in this sense also, it was expedient for us that He should go away. These two advantages of Christ's ascension the change from a visible to an invisible teacher and from sight to faith, are still further realized when we understand that the ascension made universality possible and infallibility impossible in Christ's religion. So long as Jesus walked and taught in visible form in Galilee the Christian religion was localized. It was centered where

never reached beyond the boundaries of Syria. It was only after the ascension that the disciples went out, at his command, teach all nations. The Localization of Worship. He set himself, indeed, against the locali-zation of worship. He told the Samaritan woman that neither in Samaria nor in Judea

ligion was localized. It was centered where te stood. During His ministry His teaching

Words by CLAY M. GREEN.

tion to the voice of prayer, of the divine love.

Nevertheless, while He lived our life, it was impossible for the disciples to realize that. Where He was, God was. When they were in His visible presence they were nearer to Him than when they were away doing his will. So He taught them during the days after the resurrection to be expectant of His presence on all occasions. As they walked along the road, or climbed the hill, or sat in the upper room, or cast the net into the sea, they knew not at what moment He might stand among them. They began to feel His presence with them every-wifere. And then He ascended into heaven, leaving a blessing and a promise which they were now ready to receive, "Lo, I am with

you always." The Ever Present Spirit. After that they went about carrying His message and the Lord was with them. He was at the same time with Peter at Joppa and with James at Jerusalem; He was present with Barnabas at Autioch and with present with Barnabas at Antioch and with Paul at Rome. Wherever they journeyed in His service, even the whole world over, He was with them. Christ is here with us to-day; it would be hard to believe that if

to-day; it would be hard to believe that if He were still visibly resident at Capernaum, He would seem to belong ever so much more to the disciples in Syria than to the disciples in Pittsburg. Thus the spiritual presence of the Master brings a wider biessing than His bodily presence could have brought. The ascension into heaven made universality possible in Christ's religion. He went away from the little commany of people on the ascension hill company of people on the ascension hill that He might come back again to all of us

that He might come back again to all of us and abide with us forever. It was, indeed, expedient for us that He should go away. It was a good thing to have universality thus made possible; it was also a good thing to have infallibility made impossible. Absolute infallibility is always, and in the nature of things, impossible. An infallible teacher is not infallible for us unless we are infallible learners. An infallible book is not infallible for us unless we are infallible readers. For infallibility are infallible readers. For infallibility means the total absence of mistake. And while human nature continues as it is, we are all going to make mistakes.

He Never Compelled Acceptance. It is a sufficient definition of infallibility, however, to say that it is that characteristic of a statement which, when it is present, compels acceptance. When the voice of incompels acceptance. When the voice fallibility is heard we must believe.

Now, Christ never compelled acceptance. He was the only infallible teacher that ever lived. When He spoke, He spoke the truth. And yet, it is remarkable in His teachings that He hatitually retrained from laying obligations upon men's thinking. He came not to make us slaves, even in our minds, but to set us spiritually free. What He said put no barrier across the path of thought; on the contrary His words inspired and stimulated thinking. His utterance was not the end but the beginning of the truth. Neither did He compel men to be-lieve; instead of that, He always left a pos-sibility for doubt, if a man would. So that faith might be the real voice of the man. "How long dost thou hold us in suspense?" they asked him; "if thou art the Christ tell us plainly." But so far removed from plainness was His answer that, after all His public teaching, when He was accused before the high priest of blasphemy, no two witnesses agreed together.

Mast Do Their Own Thinking. It was inevitable, however, that the disciples should have been greatly dependent upon their Master. While He was visibly present with them, He was such a supreme and ultimate authority that, of necessity, they let Him do their thinking for them. While He lived among them they had in their company the voice of in-fallibility. And He knew that that was

not good for them.

God wants us to do our own thinking. He wants us to recognize and accept truth for ourselves, because we find it true, not because some infallible voice tells us. We because some intallible voice tells us. We are all the time trying to escape from this divine task of thinking. We are in search of an infallible church, or of an infallible book, or of an infallible statement of theological truth, which we may accept and thereafter think no more about it. But we can no more transfer to others the duty of thinking than we can the duty of praying. To point to the church or to the Bible, or to a Confession of Faith, and say, "This is what I believe," is not belief.

Not to Compel out to Inspire Faith.

Not to Compel but to Inspire Fatth. Into all faith must enter an untrammeler

have become accustomed to his way of teaching, so that his truth, though we may not have learned the whole of it, makes less impression upon us. Thus the parish grows weary of the parson.

God is always changing our instructors. He teaches us by the lips of men who have their day, and give their message, and for it, not to put a stop to thinking, but to make is think. Faith is recognition. It must be free or it is not taith. The believer recognizes the truth of God, as the musician recognizes the beauty of music. He must not have compulsion put upon him. He must recognize it for himself.

Thus Christ chose to teach us, not any longer with the voice of external authority, light and speaking in our

he might set us free from all compulsion of infallibility and be the better recognized by faith. It was expedient for us that GEORGE HODGES. should go away.

SOUND OF A SUNBRAM.

urious Experiments That Have Lately Been Brought to Light,

earson's Weekly. One of the most wonderful discoveries in science that has been made within the last year or two is the fact that a beam of light produces sound. A beam of sunlight is thrown through a lens on a glass vessel that contains lampblack, colored silk or worsted, or other substances. A disc having slits or openings cut in it is made to revolve swiftly in this beam of light so as to cut it up, thus making alternate flashes of light and shadow. On putting the ear to the glass vesse

strange sounds are heard so long as the flashing beam is falling on the vessel. Recently a more wonderful discovery has been made. A beam of sunlight is caused to pass through a prism, so as to produce what is called the solar spectrum or rainbow. The disc is turned, and the colored light of the rainbow is made to break through it.

Now place the ear to the vessel contain

ing the silk, wood or other material. As the colored lights of the spectrum fall upon it, sounds will be given by different parts of the spectrum, and there will be silence

For instance, if the vessel containes red worsted, and the green light fisshes upon it, loud sounds will be given. Only feeble sounds will be heard if the red and blue parts of the rainbow fail upon the vessel, and other colors make no sound at all Green silk gives sound best in a red light. Every kink of material gives more or less sound in different colors, and utters no ound in others.

A RATHER CURIOUS BAILWAY.

Is Not Absolutely Long, but Runs Many Funny Zig-Zage, Pearson's Weekly.]

There are few more interesting engineering achievements than the little narrow gauge railroad running to Caracas, the capital of Venezuela, from its sea port, La Guayra. The distance between the two cities, as the crow flies-supposing for the moment that he could fly through mountains-is only six miles; but the railway connecting them is 23 miles in length, and constantly twists and turns on itself.

The rodd runs in zig-zag fashion up the mountain to an altitude of about 5,000 feet shove its starting point and then descends some 1,500 feet in the same manner into the Valley of Caracas.

Twenty-two thousand rails were used in

laying the track, and of these over 18,000 are bent. It is jestingly said that the engineer almost died of a broken heart because he could invent no excuse for bending the remaining four thousand. He did his best, however, and no one who has to ride over the line, and finds himself shaken at every one of the three hundred and forty-six sharp wists which the track makes, will find it in his heart to condemn the poor man for not making a perfect job. Two passenger trains pass over the road

daily, leaving La Guyra at half-past eight in the morning and at half-past three in the afternoon, making the journey in two hours and a half. This is a speed, exclusive of stops, of not quite ten miles an hour.

ANGOSTURA Bitters, the celebrated appetizer, is used all over the world.

FURNITURE reupholstered and repaired Haves & Kunnan, 35 Water stre-

AN ELECTRIC WORLD.

Professor Thomson Paints a Pretty Picture of 25 Years Hence.

SNAP-SHOTS OF PETTY THIEVES.

Lightning Makes a Ship Magnetic, Spoiling the Compasses.

A LINEMAN'S PROFIT ON SPARROWS

WRITTEN FOR THE DISPATCH.]

Mankind generally has come to recognize the wisdom of the injunction "Never prophesy unless you know." It is about as difficult to say where electrical developments are going to lead to within the next 25 years as to map out the future of any other science, but Prof. Elihu Thomson has undertaken in a general way to show what, at all events, the probabilities are in the electrical field.

Prof. Thomson stands so high as an electrical expert that his opinions are entitled to the highest respect. He confines himself mainly to the possible advances in in the practical applications of electric energy in the arts and industries. He looks for no great revolution in future telegraph prog-ress, although the more general introduc-tion of multiplex systems will increase the capacity of the lines and decrease the cost of operation, and more attention will be paid to permanence of lines and to securing immunity from extended interruptions from storms. Signaling or telegraphing without wires has already been attempted. without wires has already been attempted, and although it has not yet gone beyond the tentative stage, so far as practical results go, electricians are not without some nope that it may presently be accomplished, at all events for moderate distances, and even through dense fog. The inestimable value of such an invention to the mariner is appraisant.

or such an invention to the mariner is apparent.

As to telephoning across ocean cables, while the boldest man cannot, in view of the marvellous developments that have already taken place in telephony, say that it is impossible, Prof. Thomson holds that there are cogent reasons for recognizing the impracticable of great length. In electric lighting Prof. Thomson ventures no opinion as regards the possible superseding of the incandescent light by the "reals glow," or as to the electric lighting of houses without wires, but believes in a constant and rabid future development of the present modes of illumination by the arcand the incandescent lamp.

fature development of the present modes of illumination by the arcand the incandescent lamp.

In view of the fact that in obtaining power from fuel by means of steam engines upward of 30 per cent is wasted in unused heat, while the power obtainable for use represents scarcely more than 10 per cent of the real value of the fuel under the very best conditions, the discovery of a not too complex method of realizing an economy of even 40 or 50 per cent of the energy value of fuel would have an almost incalculable effect on general industrial and economic development in electricity, and the steam eigine would go out of use almost entirely.

Electrical engineers have no reason to doubt the possibility of the transmission of currents of electricity at high pressures to distances far beyond anything yet attempted. Electrical farms will soon be looked upon as a matter of course, and early electrical vegetables will be a source of perennial delight to the epicure. Electricity may possibly be enlisted in the delivery of mankind from the scourge of the mosquito and in the destruction of bacteria or microbes, now so fatal to animal and vegetable life. The electric current will play an absorbing part in the practice of physicians, and will revolutionize housekeeping by its adaptation to domestic uses.

The day when nations shall war no more will be materially hastened by the development of the appalling possibilities of electricity in naval and military practice, and the same agency is destined to be an all-pervading influence in enabling man to subordinate the lorces of nature to his will.

An Electrical Detective,

A clever piece of detective work, which must appeal with sad and crushing sugges-tiveness to the crook fraternity, has been living in our sight and speaking in our thearing, but rather with the voice which we hear in the heart, not compelling but inspiring faith.

He ascended into heaven for our advantage. He made himself absent in the body that he might be present everywhere in the last the barber struck on the idea of having last the barber struck on the idea of havin an automatic detector fixed in the shop, an automatic detector fixed in the shopy and he called in an electrician. A camera was arranged so as to cover the cigar case, and a fiashlight apparatus and the camera were connected by wires with the siling door of the cigar case, so that when the door was opened the wires would be brought together. The circuit thus formed would produce a flash and secure instantaneously a picture of the thieves. For I2 days the cigars were unmolested, but on the morning of the unlucky thirteenth the thieves were prompted to try their hand again. The plate was taken from the camera and developed, and on it was seen a unique and interesting picture, containing the likenesses of two juveniles who were in the act of stealing the cigars. Every detail in the shop was distinctly seen; the clock showing the time at which the youngsters' little operations were interfered with, and the mixture of cunning and caution on the face of the boy who was evidently taking the active part in securing the booty was intensely amusing. The boys were at once recoynized, were arrested tried and sent to a reformatory, and the Judge commended from the bench the ingenuity of the means of detection employed. This is the second "detector" picture that has been made in Toleda. About a year ago a negro was photographed in the same way while trying to rob an office. and he called in an electrician. A camers

Controlled the Compass

The master of a steel steamer has had a probably unparalleled experience while in a storm in latitude 28.12 north, longitude 70.50 east. The steamer had two masts, the lower masts being of iron and the top masts of wood. The steel wire rigging (served of wood. The steel wire rigging (served over) was carried to within about three lees of the trucks, and there was no special i ghtning conductor fitted. A very vivid flash of lightning splintered the foretopmass near the spine and scattered sparks and fire near the spine and scattered sparks and the over the shirp. The shock also affected the compasses; that on the upper bridge was deflected from N. 72 W. to N. 45 W., and so remained for a short time. The wheelhouse compass, which had previously shown W. N. W., now showed E. S. E., and the compass on the poop also exhibited a considerable variation. When another compass card was tried in the wheelhouse it was found that the shock had so changed the magnetism of the ship that the card was reversed. The westerly deviation of the upper bridge compass was increased 3° W. to 13° W. steered, on the course (N. 72° W.) In a few hours the ship was swung completely around, and a change in the errors of the compass became manifest. The deviation on the north was altered from 6° W. to 27° W., and the wheelhouse had regained some of its original power as the north point again approximated toward the north. Since the occurrence the compasses have never regained their original errors, and the magnets have had to be removed, and in some cases reversed, to reduce the errors and make a fairly accurate reckoning possible. over the ship. The shock also affected the

He Kills Sparrows.

The English sparrow is not liked in Kalamazoo, and the decided feeling against him is indicated by the fact that the people would rather by 3 cents see a dead sparrow than a live one. The lineman who looks after the lights of the city is 'now availing himself diligently of the benefits himself diligently of the benefits of this bounty, and he has so supplemented his ordinary pay by the destruction of "Englishmen" that he is inclined to believe the very best sparrow trap in existence is an arc lamp. The birds make their nexts in the lamps, and after the ergs are laid the lineman keeps a close watch on it. Just before the young birds are felly fledged he pinches their hends and realizes on them. One day last week he brought in 141, and last year his "side line" brought him \$70.

An Electric Advertising Cart.

The tendency to use the electric light for advertising purposes has been steadily growing, and no more striking example of its effectiveness has been seen than huge "Corbin" sign, 68x60 feet, which as Twenty-third street and Broadway, New York, vaunts the attractions of the Long Island seaboard for residental purposes in letters outlined by lamps of many colors. The latest idea in this direction in England is an electric cart which during the dries faming placards through the while at night its advertisements to form of colored lamps.