Impossible as such a feat may seem

to those who have no practical knowl-

edge of the science of telegraphy, many men of the widest experience have ad-

mitted that the invention is an un-

qualified success. Among the experis

and who have watched its operations

is Charles M. Baker, the superintendend of construction of the Postal Telegraph company. He has just returned from Buda-Pesth, where he witnessed

a series of tests of the new device, and

it is his opinion that it is one of the great inventions of the century.

giving their best thought to efforts to increase the speed of telegraphy. Ac-cording to the old Morse system it was

possible to send out, approximately, 250 words an hour, although this is a system that depends chiefly upon the

endurance and accuracy of the opera-

the number of words were increased to 400. With the Hughes system from

1,000 to 1,200 words an hour could be

sent, and the Hughes Duplex increases the number to about 1,800 words an hour. A few years after the introduc-

tion of the Hughes system Inventor Baudot succeeded in increasing its ca-

With the Morse Duplex system

For years many inventors have been

BLACKS FIGHT IN SOUTH AFRICA

Boers and Kaffirs Have a Battle in Which the Whites Win.

THE WAR WITH ENGLAND.

Boers Kept informed as to British Army Movements - Desultory Fighting in Progress.

Pretoria, Tuesday, December 26th, via Lourenzo Marquez, Thursday, December 28.-Commandant Swart reports from the laager at Alowyn's kop, near Zeorust, that he had an engagement on Friday, Decermber 22nd, with kaffirs in the neighborhood of Derdorpoort. The kaffirs occupied a strongly fortified ridge, and were well prepared for emergencies. After heavy firing the burghers captured the kaffir position, losing three killed and five wounded.

London, Dec. 30 .- The latest special dispatches from Chieveley camp hint darkly at some important movement as imminent. This is interpreted, with some misgivings, to mean that Gen. Buller contemplates a renewal of his attempt to relieve Ladysmith.

It is reported by the same dispatches that the Boers have now retired to the north bank of the Tugela, being afraid that the swollen river may bar their retreat. They are also moving their laagers neaer Ladysmith, probably with the intention of putting further pres-sure on the garrison which now seems suffering pretty heavily from

bombardment. It is difficult, however, to conceive that Gen. Builer would make another frontal attack, especially now that the river is rising, and an additional indication that this is not his purpose is the fact that he has removed his headquarters back to Frere.

The Boer movement northward from the Tugela is quite in keeping with the enemy's plan of securing a safe line of

It is known that further artillery is to arrive for Gen. Buller, but the belief here is that his forces even then will be too weak. He may however, be animated by a desire to accomplish something before the arrival of Lord Roberts, and to satisfy the keenness of his men to retrieve their defeat.

The reported engagement with kaffirs is very vague, and cannot be explained pending the arrival of later dispatches.
The Times has the following, dated
December 27th, from Lourenzo Mar-"Cargoes for the Transvaal have dwindled to one-fifth of the average, but large shipments are expected from Europe. In the meantime there persistent rumors here and in Durban that guns and ammunition are smugled through for the Boers. A Fren liner, now in the harbor, is said to have brought two large guns from Madagascar.

The head of the customs assures me that there is absolutely no ground. however, for such rumors. The goods, he says, are discharged, examined and dispatched by daylight. So great is the stringency, according to this official, that even saddles and horse-shoes are not delivered to local importers, except in small lots and under written guarantees. The same precautions are taken with reference to all contraband articles. Of course, much depends upon the competence and incorruptibility of sub-

The Times has a later dispatch from Lourenzo Marques, dated December 28th, which says: "The suspicion that the Boer intelligence department is in close touch with a foreign consulate in Pretoria is confirmed by the fact that the news of the appointment of Lord as commander-in-chief South Africa was generally known it Pretoria, December 20th, indirectly reaching Delagoa bay from the Transvaal two days later. Suspicion rests upon a consul who is notorious for his Boer sympathy. There is reason to believe that Pretoria is kept well informed with regard to British military

movements. "With reference to the rumors of smuggling contraband, it is significant that Maj. Erasmus of the Free State artillery is here, his arrival being coincident with that of the French liner. Considering the freedom with which the Transvaal secret service fund is spent, considerable mischief may unless cargoes are inspected by British searchers who understand foreign bills of lading.

The Modder river correspondent of Times, referring to the scare-firing of the Boers, says: "Their nervousness causes much amusement among the British. It is quite certain that half the Boer force is employed watching by day and the other half by night. Probably the consequent weariness with the scarcity of water and the presence of typhoid, will render the Boer position intolerable. Their present action is due either to a scare or a wish to cover a retirement to Spytfontein.

The Times publishes the following dispatch from Chieveley Camp, dated December 24th: "Parties of Boers approached today within three miles of Chieveley Camp, threatening our watering parties, who are compelled to go some two miles, owing to searcity of water. It is reported that the Ladysmith garrison made a sortle on Thursday and captured a hill."

The Capetown correspondent of the Daily News says: "A leading resident of Vryburg, who was released by the Boers, saw 2,000 colonials from Griqualand West. He says colonial faces are to be seen everywhere in the Boer

ranks. Commandant Snyman reports as follows from Molopo: "On Monday morning the enemy from Mafeking attacked one of our forts in force with cannon and an armored train and so persistent. ly that there was fighting right on the walls of the fort. But we have retained our fort. The British loss is re-

ported as 55." The other commandes report: "All quiet, with the exception of the usual bembardment of Ladysmith. Gen. Meyer has recovered and returned to the front.

Advices from Ladysmith, dated Sunday, December 24th, via Pietermaritz-burg, say: "Gen. White has had a slight attack of fever, but he is now

convalescent. The Boer shell fire has been very damaging recently. On Friday one shell killed six men and wounded nine. The same missite killed fourteen horses. Another just missed the fifth lancers

lines, slightly wounding six officers. Several shells have falten close to Gen, White's house, compelling the removaheadquarters to another point. "It is reported that Gen, Joubert is command of the Boers here The military authorities appear confident, but they are very reticent. Boers have been observed moving northward

and westward in large numbers." Daily Mail, telegraphing the substance of an interview with the Russian General Gourko, eldest son of the famous Gourko, who is now about to start for made the following statement:

have beer offered the command of Boer army corps. In my own mind I am absolutely confident of the success of the Boers. You may take my word for it that thousands of Russians are now fighting under Gen. Joubert."

Lord Rosebery writes as follows this morning to the Times: "There are disquieting intimations which appear to point to our government having treated foodstuffs as contraband of war. As this is a matter of supreme importance, venture to address this line to you, in the hope that it may elicit an authoritative statement on the subject."
The Times, commenting editorially upon Lord Rosebery's letter, says:

"Too little is known of the seizures for any valid inference safely to be drawn. An emergency might arise when a certain foodstuff would be regarded as contraband, while others would not, especially if the latter were intended for non-combatants. There might, for instance, be reasonable goods for treating canned goods as contraband and flour as legitimate.

After admitting that it "would be unadvisable to create a precedent which might some day be invoked against us, the article concludes as follows: "While we fully share the view that no serious change of policy should occur without cogent reasons and ample consideration, we cannot but ask ourselves whether, in the event of Great Britain being engaged in a war, the action, either of the enemy or even of neutra powers, in a matter upon which such great divergence of opinion still exists is likely to be governed by any precedent we or any one else may have set in the past rather than by the immediate interests of the moment."

Suicided Because He Was Robbed.

Chicago, Dec. 30,-While the lifeless body of James W. Peleller lies at the county morgue awaiting the arrival of me one who will give it a Christian burial, a disappointed woman sits in her home at Norfolk, Va., and walts the coming of her betrothed. developed today that Preletier, who committed suicide Tuesday in a cheap lodging house, was on his way to the town in Virginia to be married to a wo man who has waited for him for seven Peletier came to Chicago from vears. Marysville, Mo., with a good supply of money and a trunk full of gifts.

But before he had been in Chicago long, his money, railroad ticket and beggage checks were stolen. He made his way to a hotel in Dearborn street and told his story to the proprietor. He declared that he had written to his relatives in Missouri and expected that would send him money to go or with his journey in a few days. Upon these conditions he was taken into the The expected money dld not arhotel. rive, and becoming despondent he took laudanum and died at the county hospital. The name of his betrothed is not known neither is that of an uncle whom he claimed to have in Marys ville, and who, he said, was a leading man of the town. Efforts are being made to find somebody who is connect ed with the deceased, in order that he may be given a burial conforming to his

BUSINESS RECORD OF 1899

previous station in life.

Year Has Been Most Prosperous Known for a Long Time.

Failures Fewer than Since 1883-Advance in All Lines but

New York, Dec. 29 .- R. G. Dun & Co.'s Weekly Review of Trade will say in tomorrow's issue: "No correct report of fallures in 1899 can be made until the year is closed. A collapse of speculation in copper stocks has swelled the aggregate at Boston alone over \$18,000,000 within a few days, and might yet add to the record. The failures thus far reported are fewer in number than in any year since 1883, and smaller in amount of commercial liabilities than in any year since 1881. The aggregate of defaulted liabilities is \$120,160,000, but nearly two-thirds of the banking liabilities were added within a few days, the aggregate reaching about \$89,269,-000, though exact returns for a few recent failures are not yet obtainable.

"In no other years except 1881, with defaulted liabilities of \$51,155,932, and 1880, with \$65,752,000, have failures been as small since the agency commenced quarterly returns, in 1875. The average of liabilities per failure is less than \$9,500, the smallest in any year of the twenty-five, a gratifying evidence that commercial liabilities are further removed than usual from the point of danger.

'The week has been exciting only at Boston, where the failures growing out of speculation and the efforts to reestablish banks and firms suspended have not given the week a holiday character. Yet general business is thoroughly safe and prosperous, and no important firms have falled, save which were individually connected with concerns involved in speculation.

"The speculative troubles come because the volume of legitimate business and the unprecedented distribution of profits, interest and dividends made it no longer possible to carry some stocks on borrowed money. Prosperity itself placed a check on speculative ventures,'

Bradstreet's review of "the year in business" tomorrow will say: have sanguine commercial and financial hopes or predictions found such adequate realization as they did during Certainly nothing like the wide spread and general upward movement of values, alike of staples and of securities, such as occurred during year, could have been foreseen. Linked with an immense business and a recordbreaking production in nearly all lines of business and industry, except, perhaps, in some products of the agricultural interests, there was with it an advance of staple values either of which alone would have made the year notable and combined to have served to establish the year as a record breaker and set up new standards. The volume of domestic and of foreign trade alike was the largest ever recorded, and the bank clearings, reflecting immense business expansion, ac tive speculation in stocks and immense new industrial floatings, far surpassed

all previous records. Prices, as a result, primarily of the stimulation proceeding from supply and demand conditions scored probably the greatest advance in any year and brought the general level of values to the highest point reached for more than eight years past, Pailures satistics point to the small est number reported for seventeen years past. These results have come o pass in the face of a considerably essened falling off in the yield of cot-

"That the advance in the price of staples has not been a fictitious one or ased upon arbitrary actions of combinations is evidenced by the fact that a similar price movement has witnessed abroad, the general level of prices in England, for instance, being higher on December 1st. year, than for more than eight years past. The course of values, too, has been in accordance with expectations of economists, in that the greatlles correspondent of the lest relative rise has been in manufac tured goods or in products of industry

not exclusively agricultural. Breadstuffs alone of all the classes of staples, are actually lower now than he following statement: "I ing about 6 per cent."

ATTACKED BY 200 INSURGENTS

Four Out of Six-Signal Corps Men Killed or Captured.

REBEL STRENGTH SURPRISE

Gen. Otts's Marriage Order Contains No Provisions for Divorce-Who May Marry.

New York, Dec. 30 .- A dispatch to the Herald from Manila says:

Six men of the signal corps were attacked Thursday at Talevera, east of Tarlac, by a force of 200 insurgents, and four of them were either killed or cap-

A dispatch stating that the Filipinos were harassing the entire Lingayan coast from Vigan to San Jacinto in small bands and that Lieut. J. C. Gilmore and the members of the cruiser Yorkton's crew who are prisoners of the rebels had been separated and were with insurgent bands in the northern mountains was censored by Gen. Otis on the ground that he had contrary in-

The strength of the insurgents at Matalabon caused surprise to the Amer-

Merchants here are anxious to have the campaign in Cavite province begun, so that it may be the sooner finished and the ports be opened to trade.

Gen. Otis's recent decree authorizing

MARVELOUS SPEED INVENTION IN

The transmission of intelligence is a | exclusion of all other despatches, or in instances where small villages are vissubject of such enormous importance ited by sudden calamitles requiring long news stories to be sent to all paris that it has attracted much attention and has called forth the best efforts of the world. In fact, it was largely to improve the telegraphic service for the benefit of newspapers that the of inventors and capitalists ever since the day when it was first discovered Hungarian inventors devised their new machine. The development of journalthat it was passible to make use of electricity in sending messages from ism in every country has long taxed the wires beyond their ability, and it was to relieve this ever-increasing crush of words that they have worked. one place to arother. Little by little the methods of telegraphy have been Improved upon, but no invention of How well they have succeeded the recent cable despatches have told. The official tests which were modern times has attracted more attention than the new automatic tele-

on the telegraph lines from Buda Pesth graph mackine that has just been in-Berlin were witnessed by representreduced by Anton Pollak and Joseph tatives from both governments, as well as by distinguished scientists and tele-Virag, the Hungarian inventors. It is their claim that they have succeeded graphic engineers from all parts of the in mastering the problem of quick tel-egraphy by the discovery of a method by which they will be able to send meaworld. At Buda Pesth the messages were prepared by Hungarian govern-ment officials, assisted by Mr. Baker and the representatives of several govsages at the rate of 145,000 words an

ernments. In Berlin the members of the German ministry and a delegate from the French government received the messages when they arrived. During the day several telegrams were sent betension of 20 voits 70,000 words were telephaphed in an hour, and by gradually increasing the number of volts supplied the speed was increased to the extreme limit that has yet been reached, 145,000 words an hour.

A SUCCESS.

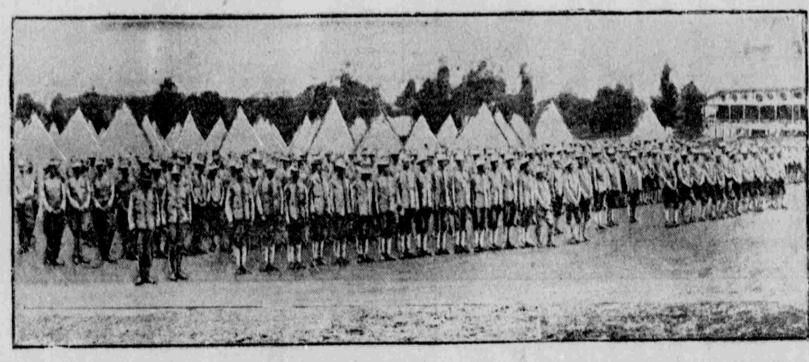
While some difficulties attended the last experiment, they were of a nature to be quickly overcome, and the officlais conceded that the new invention was a success, as the sending of 100,-000 words an hour had been accomplished without a hitch of any kind. While the conservatism of the officials prevented any further approval of the machine, the telegraphic experts were satisfid that even the extreme limit would yet be exceeded. They were satsatisfied that even the extreme limit word limit, which means that messages were sent at the rate of about forty

words each second To make the advantage of the new pacity to 4,000 words an hour by the device over the old methods more clear BATTLE NEWS AT WYNBERG CAMP HOSPITAL



The wounded at Wynberg are reported as recovering with remarkable rapidity. Many soldiers, within a few weeks after their reception at the hospital with severe bullet wounds, were pleading to be allowed to return to their regiments. The greatest tonic to the wounded is to give them news from the front. A hospital orderly is seen in the photograph reading to one of the wounded from Elandshaagte the report of the dashing episode of his comrades destroying, in a night attack, big guns that had bombarded Lady.

REGULARS HAVING FAILED, BRITAIN PINS HER FAITH ON THESE MEN.



The photograph shows a regiment of the Colonials attached to Buller's army at Chieveley Camp. Now that the Boers have undeceived the British commanders as to the superiority of the regular British soldier over the Boers, the men who are of the Boers' calibre have been of necessity brought to the front. These are the Colonial crack shots and rough riders, of which a regiment is seen above. They are the kind of men that Baden-Powell has made such good use of. Their tactics are the same as those of the Boers and with the kind of fighting that is practised in South Africa they are thoroughly famil-

civil marriages makes no provision for divorce. Only the Catholic reasons for separation are recognized in the or-

Girls 12 years old and boys of 14 are permitted to marry with the consent of their parents, but otherwise they must be 21 years old.

In order to remove any doubt of the status of Protestant marriages performed during the last year by army chaplains, where one of the contracting parties was a Catholic, Gen. Otis's or-der was made retroactive. Native women who have married soldiers without Catholic rites have been ostracised by

their relatives. Justice Arellano requested the omission of a divorce clause from the de-cree because of the belief of the Filipinos that the marriage tie cannot be

SHUFELDT TO BE COURTMARTIALED Refused to Obey an Order to Submit to a Civil Court.

Washington, Dec. 29 .- The war department has accepted the challenge of Capt. R. W. Shufeldt, United States army, retired, and has transmitted all the papers referring to the case of the officer to Maj. Gen. Merritt, commanding the department of the East at New York, for court martial proceedings.

Several days ago the adjutant general, by direction of the secretary of war, ordered Capt. Shufeldt to place himself within jurisdiction of the civil courts of Maryland, before which that officer was the defendant in divorce proceedings.

This order was based on representations of the attorneys of the wife of the officer that he had failed to comply with the orders of the court for the payment to his wife of a stated amount of alimony, and that he remained out-side the jurisdiction of the State court in order to evade process.

Subsequently the officer's counsel informed the war department that, acting on his advice, Capt. Shufeldt would decline to comply with the order to place himself in the jurisdiction of the court. The attorney said he based his advice on the fact that his client had recently been declared bankrupt by the courts of the District of Columbia, and consequently was relieved from the payment of the allmony decreed by the Maryland court, amounting to date to about \$600. A compliance with the orders of the war department, the attorney stated, undoubtedly would lead to Capt. Shufeidt's imprisonment without

proper cause. The attorney furthermore declared the proceeding was a scheme on the part of the prosecution to put his client in prison, and said that Capt. Shufeldt would stand the consequences of court martial proceedings rather than obey the order, which virtually meant his incurceration without legal support. Capt. Shufeldt also wrote a letter to he secretary of war protesting against the action of the military authorities and notifying him that he must decline to obey the order to place himself within the jurisdiction of the Maryland court. He told the secretary that he had been under military arrest for more than a year, and that he considered the order issued in his case as unreasonable, as would be one which

employment of five sets of apparatus, and then came the Wheatstone system with its 24,000 words an hour. Up to this time this has been the limit that has been placed upon rapid telegraphy. so that the revolutionary character a system that will transmit 145,000 words an hour may readily be imagined.

SIMPLE SYSTEM.

The Morse system, which is in use principally in this country, is the personification of simplicity when pared to the other systems. The Hughes printing telegraph that followed was in some respects, an improvement over the old system, but its great disadvantage was found in the fact that its 1,00 words an hour could not be improved upon without the employment of many sets of apparatus, in which case the many moving parts introduced friction and therefore consumed a great deal of power. The great disadvantage of the Wheatstone system, which is in use in England, is that the apparatus employed is so delicate that it easily gets out of order. This system may also be called a machine telegraph, as the message is prepared for transmission on a strip of paper by a perforating

machine. In addition to those systems there have been scores of inventions that have been introduced, but in nearly every instance the delicacy of the ap paratus or the complications of the system have made them impracticable for commercial use, and this is one of the chief arguments that have been ad vanced in favor of the new Hungarian system. Not only will the new ma chine transmit its 145,000 words an hi but it is reliable and not at all subject to disorders.

According to Mr. Baker, the new de vice is a combination of the telephone, the camera and the Morse code. messages must first be prepared by the perforation of a tape, which is inserted in the sending instrument. Through this, by means of electricity, a telephonic sounder is caused to vibrate in the receiving instrument. Vibrating with this diaphragh is a small mirror, and the rays of light which it throws are received upon a piece of photo graphically sensitized paper, which shows an uneven line. The loops above the line show dashes, and those below dots, according to the regulation Morse

Complicated as this system may seem to the uninitiated, it is actually just the opposite, and while it takes nearly as much time to prepare this message as it does to send under the present sysm, the new device has countless advantages. In the first place, the work of preparing the perforated strips of paper is not necessarily done by one

NEW MACHINES.

A hundred men can sit down at as many machines, the machines being built somewhat on the style of the typewriter, and, by a regular system of dividing the messages, can turn out the 145,000 words in short order. In this way thousands of messages can be prepared at once, and the actual sending requires such a short time that the messages are as good as sent when they have been placed upon the strips. As can readily be seen, this would tend to prevent all crush of business on the wires and would decrease the number unreasonable, as would be one which would require him to commit murder or some other crime.

All the correspondence in the case has been referred to Gen. Merritt with instructions to order a court martial for the trial of Capt. Shufeldt on charges of scandalous conduct and of conduct unbecoming an officer and a gentleman.

Wires and would decrease the number of wires required for the transaction of wires required for the transaction of business. The importance of this feature of the system would be apparent in places where there easily when the trial of Capt. Shufeldt on charges of scandalous conduct and of conduct unbecoming an officer and a gentleman.

one may cite the following example: According to the tests recently made between Berlin and Buda Pesth, it would take but a trifle over sixteen minutes to transmit the contents of a newspaper containing 40,000 words. An expert telegrapher, using he Hughes system, would require no less than thirty hours for the transmission of such a message, while it would be impossible for a Morse operator to do the work in less than five days and nights. As the result it is not difficult to see that the successful test of such an invention means that the entire telegraphic system of the world is soon to be revolutionized. Not only will the cost of telegraphing be reduced, but the existing lines can be put to much better use, as the employment of a sufficient number of perforating machines would enable the companies to meet any demand that could possibly be made upon the service. For these reasons, as well as for many others that need not be mentioned, the names not be mentioned, to the two Hungarian inventors Messrs. Pollak and Virag, will certainly occupy a prominent place upon the pages of the history of the progress of nineteenth century.-Cleveland Plain Dealer.

THE FUTURE OF THE SOUDAN.

The Khalifa was destroyed as a serious power in the battle of Omdurman; but that is not the same thing as establishing an acting dominion over a stretch of roadless and generally waterless country some 700 miles from west to east and 500 from north south. Of the provinces west of the Nile no soldier of the Egyptian government has reset foot in the western. most, Dafur, Kordofan, between it and the White Nile, still harbors the Khalifa. Attempts have been made to push into the Bahr-el-Ghazal and up the White Nile to the equatorial lakes, but they have not been successful. The they have not been successful. sudd, or floating vegetation, has effectually impeded the gunboats, and becomes more and more difficult as the river falls. A down-river expedition from Uganda has so far been baffled by the same difficulty.

On the other hand, the country east of the Nile has been fairly covered up to the frontier of Abyssinia. The River Sobat and its tributaries have been explored for a distance of nearly 300 miles and fortified port, the southernmost in the Sudan, established at Nassar, over 250 miles by water beyond Fashoda. The Blue Nile and its tributaries are commanded to the head of The "island," or country navigation. between the White and Blue Nilesthe best cotton land in the Sudan-is pacified. Gedarif is being connected with Kassala and the Red Sea coast by telegraph. As soon as possible a railway wiil probably be constructed from Khartum, along the Blue Nile, by Abu Haraz, Gedarif and Kassala to Suakim. Gedarif is the granary of the Sudan; grain there can be bought doubly as cheap as at Kassala, and eight times as cheap as at Omdurman, Better communication between the capital and its bread supply is the first

necessity of the situation.

The remaining section of the Sudan—the Nile banks from Wady Halfa to Khartum-is the one where most progress may neturally be looked for. It is the longest conquered and the easiest the rebuilding of Khartum.

Briefly, there is no place for heroice about the reopened Sudan. Khartum h being slowly transformed from a col-lection of old ruined mud buts to a collection of new, stable ones. The governor's palace will be as palatial as at Italian rural hotel. The Gordon college

will be an elementary school for little boys between seven and fourteen. provincial governments ar their shirt-sleeves, the law courts the same as the provincial governments. I all has to be made out of nothing. The Sudan has no element of a countrynot even population. It is a scraped tablet; and only the broadest and plainest lines of social life can as yet by drawn upon it. But those will be drawn with a firm touch. Security is the firs requisite. As the new generation grows it will find the paths already marked out for it.-G. W. Steevens, in Frank Leslie's Popular Monthly for January.

river. Dongola went far to supply the Khartum army with grain. But ever

if the country fills up more quickly

than there is any right to expect,

must still remain for years half peopled half desert.

Within a matter of weeks after these

lines are read the railway should have reached Khartum, and the Sudan should

be open to trade. But where there is lit. tle to bring out of a country there will be little to be taken in. There is ebony

and other good timber on the Blu Nile; there are also gum, ivory and est rich feathers to be had, but not in any

great quantity. The chief impedimen to trade will probably be the difficult, of bringing up bulky goods like fabries for the railway is blocked with store and materials for the dam at Assan and

ELECTRIC FLASHES.

Red Cross subscriptions for the Transvaal in Berlin already total 100,000

San Francisco has voted to issue \$4.-750,000 more in bonds, making \$11,250,000 in all.

Germany will establish in January her own postoffices in Smyrna, Beyreuth and Salonica.

The Berlin Neuste Nachrichten questions the right of Great Britain to confiscate gold ingots which were transported from the Transvaal to Europe.

"Ben Halliday," Eastin and Larrabie's great race horse, will race no more. He has been retired to the stud at their farm near Lexington, Ky.

PHOTOGRAPHING THE RECENT METEORIC SHOWER.

tangle - haired, herring - gutted, half-

human men. Yet every-where there is a bad and a not quite so

bad. There is nearly always a lip of soil

along the river bank, and that soil, irri-

gated by waterwheals, will support men,

The waterwheels have been broken and

burned, it is true. The men have been

speared, the women taken for concu-

bines flung into the river. But the ex-

perience at Dongola, now restored to

Egypt for three years, encourages the

hope that the country will fill up soon-

er than you would think. Fugitives

sprang up from everywhere to claim

their derelict lands in Dongola pro-

vince; soon water-wheels creaked again

and the green corn embroidered the



While other scientists went to the ends of the earth to selected positions on high mountains in order to get a good view of the recent display of heavennreworks, one party hit upon the bold plan balloon. From the car of the air-ship some remarkable photographs were obtained by the three scientific aeronauts seen above, which have since been exhibited at the French Academy of Science. The party consisted of M. de Fonvielle, M. Mallet and M'lle Klumpke, of the Paris Observatory.