

"EUROPEAN CONCERT"

SIR EDWARD GRAY GIVES GRAVE OFFICIAL WARNING OF CRISIS.

By EX-ATTACHE. Of all the statesmen in Europe who, as foreign ministers, are entitled to speak for their government and for their country in international matters, there is no one more discreet in his utterances, who weighs his words with greater care, and who enjoys a more well-deserved reputation for caution than Sir Edward Grey. No one has ever known him to speak on the impulse of the moment and without due reflection as to the possible effect of his remarks.

In fact, it is to his reserve of manner, to his reticence, and to his exceptional level-headedness that he is indebted for the respect which he enjoys among his countrymen of every shade of political opinion. One and all they look upon him as a man who is essentially "safe," and that, in these days of hysteria and emotionalism in politics, as in all other phases of life, constitutes the greatest of all claims upon the regard, and, above all, the confidence of the English-speaking race.

May Be Eastern War. When, therefore, Sir Edward Grey intimates, as he did on Tuesday last to Parliament at Westminster, that the diplomatic entente known as "the Concert of Europe" is in a very critical condition, and in danger of disappearance, it is evident that the peril of another war in the East is imminent. In fact, Sir Edward Grey, in the House of Commons, and Lord Fitzmaurice, who is his under secretary of state and representative in the House of Lords, gave this to be understood in so many words.

It is a striking coincidence that this weighty pronouncement of the English foreign office in Parliament should have been made just at this juncture. For Tuesday is the thirtieth anniversary of the treaty of San Stefano, by which the victorious Russian army brought her war with Turkey to a conclusion, if not under the walls, at any rate within sight of the menarets of Constantinople. In fact, the terms of peace would have been negotiated in Constantinople itself had it not been for the threat of the English government to intervene if the Russians advanced one step beyond San Stefano.

Feared British Ships. It was, in fact, the knowledge that the entire British Mediterranean fleet had been assembled at the entrance of the Bosphorus, with steam up, and ready to move on to the Bosphorus, on one word, that England would embark then and there upon a war with Russia rather than permit her to seize Constantinople—that stayed the hand of the czar when the prize for which the Muscovite empire had been straining, fighting, and intriguing ever since the days of Peter the Great, namely, the possession of Constantinople and the mastery of the outlet from the Black Sea into the Mediterranean, seemed within his grasp.

Nor were the English content with keeping Russia out of Constantinople. They took vigorous exception to the terms of the treaty of San Stefano, on the ground that its provisions weighed too heavily upon the Sultan, and were calculated to disturb the balance of power in Europe. In addition, the treaty was economically and militarily exhausted by her long, difficult, and terribly costly campaign against the Turks, and in no position to offer any serious resistance to the restoration of Great Britain; and finally it was resolved to submit the treaty of San Stefano and the demands of England in the matter to a congress of the great powers at Berlin, under the presidency of the then chancellor, Prince Bismarck.

Thirty Years Ago. The congress of Berlin assembled in the summer of 1878—that is to say, just thirty years ago—and before it dispersed, after sealing down the treaty of San Stefano in a manner calculated to rob Russia of many of the fruits of her victories, it organized what has since become known as the Concert of Europe, a charter and foundation of which may be said to have been constituted by the so-called treaty of Berlin.

The primary object of this Concert of Europe and of the treaty of Berlin was to prevent the Eastern question from becoming again a disturbing factor in international politics. For throughout the greater part of the nineteenth century—that is to say, until the congress of Berlin—the Eastern question had been the bane of every statesman and government of the Old World.

It was justly likened to a volcano that was always smoldering and every ready to belch forth without any warning, flames involving the entire world. The so-called Eastern question consisted, in the first place, of the determination of Russia to establish herself at Constantinople and to secure the mastery of that waterway between the Black Sea and the Mediterranean, which is now closed to her.

Austria Also Determined. Austria, and especially England, have ever been equally determined to keep Russia out of Constantinople and away from the Bosphorus, Great Britain taking the ground that her route to India would be endangered were the czar's authority established on the Golden Horn. A further disturbing element was furnished by the oppression of the Christian population of certain Ottoman provinces in Europe and Asia Minor by the local Turkish authorities. Often this oppression has been rightly deserved. For Russia, in her efforts to get to Constantinople, has for the last hundred years made a point of encouraging the many millions of Christian subjects of the Sultan to resist his authority and to look to St. Petersburg for the eventual emancipation of all Christians from Moslem rule. In fact, the nominally benevolent Pan-Slavic policy of Moscow, which has branches all over Russia, and enormous resources at its disposal, exists for no other purpose than to promote the union of all the Christian or Slav races of Southern Europe under the scepter of the czar.

Oppose Russian Power. Austria, on political and military grounds, has always strongly opposed any increase of Russia's power and influence in that part of Europe, realizing that it would be at the expense of the commerce and safety of her empire. Italy, too, has a finger in the pie, being bent on securing, first of all, predominant influence, and ultimately sole possession, of the Turkish province of Albania, from which so many of her leading statesmen and citizens have sprung. There are Albanian societies all over Italy, organized for the purpose of protecting Italian interests in Albania, and it is needless to add that the latter is included in what is known as "Italia Irredenta"; that is to say, Unredeemed Italy.

The treaty of Berlin and the Concert of Europe had for their object the conciliation of all these various differences, and, through the negotiation of an international agreement on the part of the powers concerned, to eliminate, at any time for a generation, the danger of any European conflagration on the subject of the Eastern question.

While there has been no war in Europe on the subject of the Eastern question since the signing of the treaty of Berlin,

just thirty years ago, with the exception of the brief conflict between the Sublime Porte and Greece, which was brought to a close by the mere diplomatic intervention of the great powers, but little of the original agreement remains. In fact, Sir Edward Grey and Lord Fitzmaurice may be said to have pronounced its requiem in Parliament last week. Many of its provisions have remained unexecuted to this day, nearly every one of its obligatory powers having laid itself open to charges of delinquency in the matter; none, however, to so great extent as Turkey herself, who not only has neglected to introduce the various reforms in her Christian subjects to which she solemnly pledged her self by the treaty, but has not even paid more than a mere fraction of the indemnity owing to Russia in respect of the war of 1877, although the amount was greatly reduced by the congress of Berlin from that which she had bound herself by the treaty of San Stefano to pay to the Muscovite treasury.

Russia Joins Sultan. Russia never permits the Sultan to forget this liability, but only really puts the screws on when she wishes to obtain from him some other concessions, which he invariably grants rather than open up his purse strings for an installment of his debt. It would take far too much space to enumerate here all the various violations of the treaty of Berlin that have taken place since 1878. It is no exaggeration to state that it has been generally true that the Sultan has not only failed to observe the terms of the charter of the Concert of Europe as thus disappeared, it is only natural that the concert itself should cease to exist.

No one has contributed more to the destruction of this so-called Concert of Europe than that extremely astute politician, Sultan Abdul Hamed of Turkey, who has taken to heart the prophecy of the founder of Islam when, in his political testament, he told his adherents that their future strength would lie more in the dissensions of the Christian than in the unaided endeavors of the faithful.

Many Christian Soldiers. When Sultan Mohammed seized Constantinople, in the fifteenth century, and substituted the crescent for the cross on the dome of the ancient basilica of St. Sophia, now a mosque, he was able to boast that throughout the siege he had had more Christians in his army before the walls of Istanbul than the last Christian Emperor of Byzantium possessed among the defenders. And it is stated on good authority that when the Morocco question first became acute the Sultan of Turkey dispatched an envoy to the court of Fez with a message to the effect that the Sultan of Morocco would do well to bear in mind the prophet's warning—that Islam's strength lies in the feuds of Christendom." It is by following the advice of the prophet that the present Turkish ruler has managed to defeat all the defenders of the Christian world, and to adopt, with regard to his Christian subjects, measures and reforms calculated to give offense to his Moslem lieges and to impair his spiritual prestige throughout the Christian world.

Resistance Is Effectual. Thanks to this, he has been able to not only offer an effectual resistance to all attempts to compel him to live up to the stipulations of the treaty of Berlin in connection with the administration of the Ottoman Empire, but he has also greatly increased his influence with his own Moslem subjects, and with the followers of the prophet in all other parts of the world, that he is to-day undoubtedly the most powerful Mahomedan ruler in the world, and the ruler who has brought things to such a pass that he can afford to ignore the demands of any one, or even two, foreign governments, assured as he is that he will be supported in his attitude by one or more of their colleagues in the now defunct Concert of Europe.

It is impossible to deny that Abdul Hamed has been encouraged to a great extent in this by the attitude of the great German Emperor. The latter, who has visited Constantinople on several occasions, and who is the only now reigning monarch who is on terms of personal acquaintance, and even of friendship, with the Sultan, has ever since the treaty of Berlin been desirous of becoming a mere figure of speech, adopted a course of policy calculated to further in Turkey the interests of the German empire rather than those of the Concert of Europe.

Kaiser Promotes Trade. He took the ground that it was more sensible, and, above all, more patriotic, to promote German industry and trade in the Orient by cultivating the friendship of the Porte than by forfeiting Moslem good will in endeavoring to force upon the Ottoman government reforms to which even those whom it is intended to benefit thereby are averse. He has all along declined to become a party to any attempt to compel Abdul Hamed to govern Macedonia according to Western methods.

Macedonia Is Peopled. Macedonia is peopled partly by Mahomedans and partly by an engendering of Christian races, who are always fighting among one another. There are Greeks there who wish for the annexation

growing at the old paper. I guess he finally gets tired of himself, too, and then he jumps up, throws the paper on the chair and tries to dodge mamma's funny smile.

"Mamma's awful patient," I think, and she never gets mad, but just smiles and smiles at daddy when he gets cross at things. Sometimes she asks him why he wants to keep on being a newspaper man if it's so awful. One time he answered, and said it was because if he kept on working sixteen hours a day maybe the office would some time give him as much as the stereotypers get for working eight hours a day. Mamma said that it was sarcasm. I guess he thinks sarcasm must be a good thing for the office, 'cause he most always talks that way about it.

"But newspaper daddies aren't always cross. Sometimes mine hurries downstairs a whole lot earlier, and then when he grabs the paper he smiles all over and shouts at mamma: 'That's a clean scoop, Stella! Suppose there always is a chance of the man getting away, up to the last minute.'

"I tell you," he says then, 'one day like that is worth a bicycle of Cathay,' whatever that is.

"And then mamma looks at me and smiles, 'cause we both think he's funny sometimes.'

of the province to the Hellenic kingdom, which has shown such a lamentable incapacity in the development of the rich latent resources of her present territory. There is a Servian element which clamors for the incorporation of Macedonia into the kingdom of Servia, under the feeble and discredited rule of the King Karageorgovich. There is the important Bulgarian faction, which insists upon Macedonia becoming part and parcel of the principality of Bulgaria.

Plan of Macedonians.

Then there are the Macedonians who wish their country to become a Russian province and the Macedonians who aim at converting the province into an independent and autonomous state, either a monarchy or a republic, much on the same lines as Bulgaria, while the Mahomedans, who constitute about 40 per cent of the population, clamor for preferential treatment by the authorities.

There is only one point in which all the Christian races of Macedonia are agreed, namely, in their reluctance to pay the taxes by means of onerous taxation to the Sublime Porte; taxes through which they obtain immunity from military service, to which every Moslem subject of the Sultan is liable. Of course, they all of them know that by means of stories of Turkish cruelty and of Turkish oppression, they can obtain not merely the sympathy, but the abundant financial assistance from those worthy Christians of Western Europe and of America, who ignorant of the true conditions of the near East, conceive it to be a frightful thing that Christians—save the mark—should be subject to the tyranny of an infidel Turk; whereas if the truth were known, the Christian in Turkey enjoys a far greater degree of liberty of worship and of conscience, as well as more immunity from taxation, than do the Roman Catholics and nonconformists in Russia, or the Protestants in Austria, Spain, and Portugal.

Many Christian Churches. There is no important city in the Ottoman empire where there are not several Christian churches; and at Jerusalem the Moslem soldiers of the Sultan have to be kept on duty all the time in the Christian places of worship in order to preserve a decorous behavior on the part of the Christians visiting the holy places of their religion, and to prevent them from fighting one another. But in Constantinople, throughout the length and breadth of the empire, and in every Protestant church, much less a Moslem mosque.

In England, the government is necessarily largely swayed by public sentiment, which is characterized by common sense, and public sentiment demands not merely reform in Macedonia, which the Sultan cannot grant, but the conversion of a half Mahomedan province into a Moslem state under a purely Christian administration. England and William appreciates the fact that this, while it might satisfy popular feeling in the West, would in no sense contribute to the pacification of Macedonia, or to the cessation of the agitation in that part of Europe.

Might Make Matters Worse. Like those who are acquainted with the true conditions of the Orient, he takes the ground that if the Sultan were to concede the demands made upon him, the next condition of Macedonia would be immeasurably worse than the first, and so he stays his hand, declines to interfere in the internal affairs of Turkey, and reaps the benefit of the confusion and shape of a virtual monopoly by Germany of the foreign trade of the Ottoman empire.

Bismarck took the ground at the time of Russia's kidnapping of the prince, the position of Prince Alexander of Battenberg, that Bulgaria is not worth the life of a single Prussian grenadier. Emperor William, in the same way, does not consider that Macedonia is of large importance, in which the banding of the German trade in the Levant. That is why he declines to be a party to any European coalition against the Sultan in connection with the Eastern question, in the matter being now followed by Austria, who is receiving her reward by the permission which the Sultan has now granted her for the construction across Ottoman territory of the line connecting her railroad system with that of the Sublime Porte, and with Salonica.

Germany has become, through the policy of the Emperor, the predominant power in Turkey, and has likewise acquired the influence of the most important of the Moslem world, through her known as the one Christian nation which has declined to be a party to any Christian oppression of the Sublime Porte.

Importance of America. Since the signature of the treaty of Berlin thirty years ago, the United States has developed into a great power, and into a most important factor in international affairs. At the two Peace Conferences of the Hague, and the conference of Algiers, on Moorish affairs, and at the Peace Congress at Portsmouth, the views and utterances of Uncle Sam exercised a weighty influence. American trade with Turkey is relatively small and unimportant. Still, the United States empire are mainly of the missionary order. Yet it may safely be taken for granted that, as in the case of Morocco, and in the negotiations which brought the war of 1895 to a conclusion, the United States will not stand by anything without consulting the United States, and obtaining its consent to any international agreement that may now be negotiated for the purpose of averting the European conflagration in which, according to Sir Edward Grey, the world is threatened through the revival of that long dormant volcano of politics, the Eastern question.

The Ever Possible Step. From the Brooklyn Life. Ella—I'm to be married to-morrow and I'm terribly nervous. Stella—Suppose there always is a chance of the man getting away, up to the last minute.

CHAPEL ON WHEELS Catholic Church Interested in New Gospel Car.

"ST. ANTHONY" COST \$20,000

Bishop Hennessey, of Wichita, Among Those Making First Trip. Does Much Good - Enthusiasm Aroused in Breasts of Many in Remote Places—Car Hauled Free. New York, Feb. 29.—It will be news to many readers to learn that the Catholic Church Extension Society of America—of whose board of governors Archbishop Quigley, of Chicago, is chairman—has lately put in the missionary field a chapel car, commonly called "The Church on Wheels."

The car, which is named "St. Anthony," cost \$20,000, and was the gift of A. Petry, of New York. It is a model of ecclesiastical railroad architecture, and is beautifully furnished with an altar, a tabernacle, silk crucifix, and tall candlesticks, a chancel, organ, holy water font, stations of the cross, and a confessional—in a word, everything that goes to make up a thoroughly equipped Catholic church.

The object of St. Anthony's chapel car is to carry the Gospel and the consolations of religion to the sparsely settled communities and outlying districts of civilization, where there is no church, and the missionary has seldom or never penetrated. The first occupants of the car on its initial trip were Bishop Hennessey, of Wichita; Rev. T. A. McKernan, G. C. Hennessey, and the porter, who was also the cook.

Car Hauled Free. The railroads haul the car free; and, as its coming is always heralded in advance, its arrival is welcomed by scores of backwoodsmen, farmers, and frontiersmen from all the country for miles around. Children were baptized, adults confirmed, confessions heard, and catechism taught. The bishop generally said mass at 7, and Father McKernan sang high mass at 9, when the bishop preached; and vespers were chanted in the evening. The car is manned by a priest, a layman, and a non-Catholic, who is in charge of a permanent church. In several cases, non-Catholics vied with their Catholic neighbors in the liberality of their subscriptions to the building fund.

Makes Several Trips. The chapel car has made several trips since then, and so great has been the success of its mission that it is rumored to be in the way of a second. This is a form of the "St. Anthony" that has won the approval of Pius X, who in a letter to Archbishop Quigley, warmly indorses the Catholic Church Extension Society, and grants special spiritual privileges to all who aid its efforts in any way. The official organ of the society is a paper, formerly a weekly, and now a monthly magazine, called "The Church," which is growing by leaps and bounds, 300 priests having recently secured 10,000 new subscribers to it in fifteen days.

Meaning of Lent. By the word Lent is understood the fast of forty days preceding Easter, kept in honor of the example of Moses, Elias, and Christ Himself in order to prepare the faithful for the great festival of Easter. The Greek and Latin names for the fast are "Tessaractoste" and "Quadragesima," indicate the number of days. The Italian Quaresima and the French Carême come from the Dutch Vasten denote the fast. Vasten, hence the Lenten, from the Anglo-Saxon Lencten, means spring; i. e., spring fast.

While the Scriptures make no mention of Lent, Tertullian and Irenaeus, of the second century, furnish proofs that Lent, in the general sense of a preceding Easter, has been known almost from apostolic times. From the early part of the fourth century onward, however, there are many references to Lent as a period of counsel, fasting, and prayer, and the next one also, the duration of Lent varied considerably in different churches. Sozomen, a writer of the fifth century, says that all Africa, Egypt, Palestine, and the Western generally kept Lent for six weeks; the church of Constantinople and the neighboring provinces for seven. The practice of the Roman Church and of most Latins, however, was to fast six weeks, exclusive of Sundays and festive days.

Adds Four Days. At last the Latin church added the four days before the first Sunday in Lent to the fast, thus bringing it into conformity with the forty-day fast of Moses, Elias, and Christ. This new discipline is recognized by the Council of Meaux, A. D. 848. Lent was a season in which the faithful begged God's mercy for themselves, and were therefore exhorted to show mercy to the poor. The imperial laws forbade criminal processes, the church reconciled penitents, the emperors released prisoners, masters pardoned their slaves, and enemies became friends. It was a season of mourning, hence the church has always strongly disapproved of festive all of kinds during Lent.

In our times Lent begins with Ash Wednesday (March 4 this year), which derives its name from the ceremony of adorning the faithful with the ashes, in token of penance. The ashes are obtained from burning the palms of the previous Palm Sunday. At first they were administered to the faithful by the bishop, who was brought before the bishop, and the excluded from the church, as Adam was banished from Paradise, with this admonition: "Do penance, that thou mayest have eternal life." Gradually the rite was extended to all the faithful, and to-day, in every Catholic church in the world where there is a priest to perform the ceremony, all the faithful, including monks, women, and children, are sprinkled with ashes, accompanied with the solemn warning: "Remember, man, that thou art dust, and unto dust thou shalt return."

THE BLUE SPELL. I am blue today and weary, I will rest me for a while; Come and soothe me, Sothy, dearest, With thy kisses and smooth my forehead, Lure away my kind of ire, You'll not see your true love sorrowed! Then to work.

Here I'll tell beneath the willow— Make me comfy as you can; Ease my head with you soft pillow, Show the moths with your fan, Sing me songs and chant me ditties, Read me times without a halt, Spin me yarns—but, oh, for pity's sake, Don't talk!

Feed me chicken soup and minestrone, Brew me tea and coffee, too; Make me eat, sleep, and snuff, Fix a table d'hotel for me, I've a dear, and you'll not think for Yours alone, much to give; And a girl expects to work for Love like mine.

A STORY WITHOUT END.

Only Partly Told to Court by Kate, the Chorus Girl.

New York, Feb. 29.—Kate Armer, a chorus girl with a grievance, was in the Essex Market Police Court to-day to answer a charge of disorderly conduct made against her by her maid, Lena Masloff. Kate lives at 55 DeLuca street, and while she is out during the evening treading the boards at various East Side places of amusement, Lena looks after her two children.

Lena said that yesterday the chorus girl got real angry and began throwing knives, forks, and spoons, at Lena, whether practicing for a new act or not Lena didn't know. One of the knives slipped, Lena alleged, and hit her in the middle of the forehead. This Kate denied with indignation and fancy steps. She said it was false, all false, and she said it so fast that the inspector couldn't take down half what she said.

Why, as you really a mere chorus girl? said Magistrate Cornell with lifted eyebrows. "I think you would make a good tragedienne if you would wave that right hand a little more." "No, your honor, I am only a chorus girl," said Lena, and started to tell it all over again.

Magistrate Cornell decided that it was a story without end and referred it to Miss Doyle, probation officer, in whose custody Kate Armer was paroled.

MARVELOUS PEOPLE.

"Shine" Follows Stranger in New York Despite All His Efforts.

South Americans who live in New York delight in showing off the great city to their countrymen from the tropics, and in playing practical jokes on these innocents, according to the New York Times.

Once a young Spanish-American arrived here who was morbidly afraid of being mistaken for a foreigner. He wished to be just like a New Yorker in all he did. For advice on how to act he sought a countryman of his, a wag, who had been a resident of New York for years.

"You will have a hard time," said the wag, "but it can be done. Buy a hat just like the ones worn here and an overcoat; then muffle yourself well and venture forth. Walk the way the Americans do—in a hurry. Perhaps you will succeed in deceiving the New Yorkers. But they are very sharp, my friend. It is almost impossible to fool them. And, by the way, as soon as they detect a foreigner they call out 'Shine!'"

"I'll fool them," said the newcomer confidently. "He set out from his hotel in faultless metropolitan getup, hurrying along as if every street had been familiar to him since infancy. But as soon as he reached the corner an urchin looked up at him and cried: "Shine!"

"Caramba!" he muttered. "Aren't the New Yorkers clever?" He walked along in a daze, his face as little as possible, hurrying as if his life depended on it. "Shine!" shouted another boy on the next corner.

"Marvelous," remarked the South American. "And, well-nigh burying his features in the turned-up collar of his coat, he ventured into Madison Square. "Shine!" called out three boys simultaneously.

"I give up," he sighed; "what extraordinary people!" And he returned to the hotel to tell the story to his friends, who had gathered there in suspiciously large numbers.

FROM HERE AND THERE.

Henry C. Perkins, of York, Me., has a rural which has been in his family for 13 years. He has a fine collection of Alabama and South Carolina case laws prohibiting the carrying of pistols less than twenty-four inches long. At the Madagascari garages they give you a motor car made of two poles six feet long with a seat and foot rest. You don't need gasoline.

The only lot in the older part of New York City which has never had a house on it is a plot 60 by 90 at the northeast corner of Eighth avenue and Fifty-sixth street.

The Italian government warns its people that 200,000 people must be fed this winter. Two hundred thousand had intended to come to America when kept out by our panic, and 100,000 will return who cannot get work here on account of the panic.

Nearly 200 men prominent in the production of plays have organized the National Association of Producing Managers. Henry W. Savage is president and the membership includes the best-known producers in the country, including the managers of dramatic and musical attractions, burlesque and circus managers, and vaudeville managers who regularly send their troupe on tour or have individual acts employing more than ten people. The association is especially interested in legislation, railroad rates, labor disputes, and compelling the respecting of contracts. Its counsel declare that corner railroad rates may be secured by representing the traveling companies as excursion parties entitled to stop-over privileges.

THE MARINE TURBINE

MARVELOUS DEVELOPMENT IN HARNESSING FORCE OF STEAM.

It is a far cry from the simple steam engine of the Clermont, the first vessel to be propelled by any power other than sail, to the new American turbine steamers Yale, Harvard, Governor Cobb, and Creole, all of which have been built within the past year or so and mark another revolution in the development of the application of steam to do the work for mankind, says Thomas Wilson.

What do you suppose Robert Fulton would say or think would he have the privilege of seeing the vast strides that have been made in the building and equipping of vessels since his steamer plied the bosom of the Hudson River? It is more than likely he would be surprised, to say the least.

Despite the vast strides in the building of giant engines of every description for the use of steam in the reciprocating class, the problem of thermodynamic energy conversion, without excessive loss, is little nearer solution than it was in the days of Watt and Newcomen.

As a matter of fact, and one that is constantly a source of much investigation by marine engine builders, the reciprocating engine, with all its improvements and increased efficiency, is not so much of an advance over the engine produced by James Watt. This pioneer in engine building had the idea of converting heat energy by allowing steam to expand behind a piston against a resistance corresponding to the pressure. In this respect he formulated a rule that has been applied by every inventor and while the process of conversion of heat power is still steam, the development of the maximum to minimum pressure and temperature and further, this expansion should be adiabatic. As is well known, however, this cannot be obtained in practical operation for the losses in the ordinary engine are largely due to the initial condensation resulting from the alternate heating and cooling of the cylinder walls; losses are due to clearances in the cylinders and valve chambers, and to heat rejected in the exhaust. In addition there is leakage, conduction, radiation, and incomplete expansion, all of which help to swell the total loss of from 40 to 50 per cent of the steam used.

These figures apply to the better class of engines for with old machines the loss is much greater. Besides this thermal loss there is considerable friction to be overcome in the ordinary type of even the very best engines that can be made, while there is, of course, much individuality in the design of the various types of where they are used, the percentage of friction will vary from 6 to 18, yet 10 per cent is probably a fair average.

Regarding the case, the heat units utilized as work on the piston amounting to, say, 50 per cent of those available in the steam supplied the total effective power delivered on the shaft would be about 45 per cent of that available in the steam.

In view of these defects, and with a full appreciation of the standard of excellence and efficiency of the modern reciprocating engine, was it any wonder that scientists have declared that there has not been much improvement during the past century or more?

Power, mechanical and personal, has been sought in all ages and for the past hundred years the development of the reciprocating engine has received so much attention that it has become generally believed to be the ideal power despite the faults named above. Electricity, however, has been taken up and developed to a remarkable degree, but it has been limited to Mr. C. A. Parsons, of England, and Mr. Curtis, of this country, to bring out a new application for an old old theory and to produce what is known as the turbine engine for merchant and naval vessels. This new power is the marine turbine engine, wherein one has the direct application of steam to "wheels within wheels" attached directly to shafts for the turning of the propellers.

The first turbine was a land engine—that is to say, it was developed for land uses, and the first inventor was Hero, of Alexandria, several centuries ago. This followed the use of the turbine, with water and gas as propelling power, but for a number of years it was not deemed suitable for vessels, and there was but little interest shown in it by naval architects.

In 1859 the marine nations of the world sat up and took notice, when it was learned that the British government was building a turbine torpedo boat, and in September of that year the little craft, the Viper, was launched. While she was precisely of the same dimensions of other torpedo boats, the Viper demonstrated that she belonged to a new class for her engines, which weighed 75 per cent less than the reciprocating engines of her sister ships, gave her a horsepower of 12,000 and a speed of 37 knots, 7 knots faster than her sisters. Following the Viper came the Cobra, and before these craft could be given a fair trial both were wrecked and this, to some extent, retarded the development of the turbine.

Several merchant turbines for crossing the English Channel were built, and then followed the Allan liners Victorian and Virginian. Later came the great Cunarders Lusitania and Mauretania, and now

A Noble Work. From the Standard. A suburban minister, during his discourse on Sabbath morning said: "In each blade of grass there is a sermon." The following day one of his flock discovered the good man pushing a lawn mower about his garden, and passed to say: "Well, parson, I'm glad to see you engaged in cutting your sermons short."

To this home the man returns an evening falls. You hear the slow rattle of the wagon. He draws the water for the horses. The trace chains jingle as the harness is hung up. He is a young man. His cheek is bronzed and red by air and sunshine. His muscles are hard and strong; his step strong and springy; his deep chest and broad back powerful; he has been made masterful by the useful exercise of daily labor.

His life is all before him. The beginnings of wealth are all about him. Happiness is already with him. He would not change his place with a Sultan, King, or Czar fretting on their gilded thrones. He asks for nothing but health to continue and long life to enjoy the blessings that God has given him. And she, whose

practically every nation is looking forward to adopting the turbine for war and merchant craft.

The first American-built turbine was the Steamer Governor Cobb. She is equipped with the Parsons type that, so far, has given complete satisfaction. The Governor Cobb is 300 feet over all, and while her contract speed was only to have been 17 knots she developed 21.6 without difficulty.

The United States government has adopted the turbine and the new scout-ship Salem will have in her an 8,000 Curtis type turbine that will probably put her in the 30-knot class. It is practically certain that the next American battle ships will also have turbines instead of reciprocating engines.

The turbine is not only a powerful engine, but it is also simple. It is difficult to describe, but the machine consists of a series of movable and stationary vanes arranged in a turbine of either the Parsons or Curtis type being about 100,000 each of which performs its own part of the work of driving.

There is no doubt but that the reciprocating engine for high-class passenger and freight steamers and war ships has about come to its end, and that the power of the future will be the turbine. This engine comes about as close to the theory of adaptation of steam to mechanic as any scientific engine ever got, though there will always be men of brains at work who will seek to not only develop the ideas of Messrs. Parsons and Curtis, but to discover something that will eclipse them as they have eclipsed others.

STORY OF COL. ANTHONY.

How the Fighting Leader Evaded Obeying Order of General.

From the Kansas City Star. Col. Daniel R. Anthony, of Leavenworth, was an historic figure in Kansas affairs for almost half a century. He was a fearless fighter in any cause which he espoused, and the following anecdote is characteristic of his character. Early in June, 1862, the Seventh Kansas Cavalry was stationed near Union City, Ky., guarding the working parties occupied in repairing the Ohio and Mobile Railroad to Corinth. While performing this duty and while there, Col. Anthony, in the absence of Gen. R. B. Mitchell, was in temporary command of the brigade. During this time the colonel issued his famous order, dated June 18, 1862, which contained this language: "Any officer or soldier of this command who shall arrest and deliver to his master a fugitive slave shall be summarily and severely punished according to the laws relative to such crimes."

Gen. Mitchell, on returning, ordered Col. Anthony to rescind this order. Col. Anthony refused, stating that as he had been relieved from command he had no authority to countermand a brigade order. Gen. Mitchell then said, hotly, "I will place you in command long enough for you to rescind it." Anthony then asked, "Am I in command of the brigade?" Mitchell replied "Yes." "Then," said Col. Anthony, "you as an officer without command have no authority to instruct me as to my duties." If the order was ever rescinded Col. Anthony didn't do it.

MEN AND WOMEN.

Dr. Fernando E. Guachalla, who is favorably mentioned as candidate for president of Bolivia, is well known in this country, having been minister to Washington.

Rev. Henry M. Sanders, D. D., of New York, has given \$75,000 to Vassar College for the erection of a chemical library. Dr. Sanders has always been interested in educational questions.

J. Pierpont Morxan has presented to the Wadsworth Athenaeum, at Hartford, in memory of his father, fourteen volumes descriptive of his art collections in London and New York. Each volume is valued at \$500.

Herbert Weir Smith, professor of Greek literature at Harvard University, was received in private audience by King Victor Emmanuel on Monday. His majesty showed much interest in education in the United States.

Col. Theodore A. Dodge, who has lived for more than 40 years in Paris, while completing his mastery "History of Napoleon," which is now being published in four volumes, has just been elected president of the American Club in Paris.

Rev. Daniel L. Cooksey, pastor of the Baptist church of Middletown, N. Y., has been elected leader of the brass band of that city. He is an excellent cornet player and the band will have the distinction of being the only organization of the kind in the State whose leader is engaged in the ministry.

It is probable that the portions of the Cullinan diamond removed in cutting it for presentation by the Transvaal to King Edward may be used to make a necklace for Queen Alexandra. The diamond is 3,022 karats uncut and it is said that one of the cut portions will be as large as the Koh-i-noor in its cut form, 106 karats.

No member of Congress, it is said, has had more occupations in his time than Representative Champ Clark, of Missouri. He has been a farm hand, country store clerk, newspaper editor, lawyer, and politician. He has also been a member of the people of his State have given him most every position of prominence at their command.

Lawson as a Prophet. Frank Farant, in Success Magazine. "Copper is not such a difficult thing to understand when one has spent a life in it, as I have."—Thomas W. Lawson. "I do not believe copper will sell for less than substantially 154 cents for five years from April 1, 1903."—T. W. L., June 15, 1902.