PRESIDENT ON PANAMA

Sends Special Message to Congress Giving Results of His Observations in Canal Zone

Rep'ies to Critics and Makes

Recommendations.

Philippines, and belonged to the best type of American soldier. Without exception the black policemen whom I my or the policemen of the black policemen whom I my or the policemen are used to control people of their own color, but in any emergency no hestiation is felt in using them indiscriminately. In lansmuch as so many both of the white work when I my emergency no hestiation is felt in using the middle remainstalling with them, schools have been established, the school service being under Mr. O'Connor. For the white pupils to avoid some mistakes in building a giant canal through jungle-covered mountains and swamps, while at the same time was an example, while at the same time annitating tropic cities, and providing for the feeding and general cannot be supposed to 38.00 to 38.00 workers.

Care of Employes.

Colon, which are not in the zone or under the United States flag, but as to which the United States government. through its agents, exercises control for

which the United States government. through its agents, exercises control for certain sanitary purposes. I chose the month of November for my visit partly because it is the rainest month of the year, the month in which the work goes forward at the greatest disadvantage, and one of the two months which the medical department of the French Canal company found most unhealthy.

Following the introduction to the message the president gives a resume of his programme during the days he was on the isthmus, and then says:

At the outset I wish to pay tribute to the amount of work done by the French Canal company under very difficult circumstances. Many of the buildings they put up were excellent and are still in use, though, naturally, the houses are now getting out of repair and are being used as dwellings only until other houses can be built, and much of the work they did in the Culebra cut, and some of the work they did in digging has been of direct and real benefit. This country has never made a better investment than the \$49,000.000 which it paid to the French company for work and betterments, including especially the Panama railroad.

An inspection on the ground at the height of the rainy season served to con-Panama railroad.

An inspection on the ground at the height of the rainy season served to convince me of the wisdom of congress in refusing to adopt either a high-level or a sea-level canal. There seems to be a universal agreement among all people competent to judge that the Panama route, the one actually chosen, is much superior to both the Nicaragua and Darien routes.

Preliminary Work Being Done.

The wisdom of the canal management has been shown in nothing more clearly than in the way in which the foundations of the work have been laid. To have yielded to the natural impatience of ill-informed outsiders and begun all kinds of experiments in work prior to a thorough sanitation of the isthmus, and to a fairly satisfactory working out of the problem of getting and keeping a sufficient labor supply, would have been disastrous. The various preliminary measures had to be taken first; and these could not be taken so as to allow us to begin the real work of construction prior to January I of the present The wisdom of the canal management tion prior to January 1 of the present year. It then became necessary to have the type of the canal decided, and the only delay has been the necessary delay when the congress definitely and wisely settled that we should have an 85-foot level canal. Immediately after that the work began in hard earnest and has been continued with increasing vigor over since; and it will continue so to progress in the future. When the contracts are let the conditions will be such to insure a constantly increasing

Successful Sanitation.

The first great problem to be solved, upon the solution of which the success of the rest of the work depended, was the problem of sanitation. This was from the outset under the direction of Dr. W. C. Gorgas, who is to be made a full member of the commission. It must be remembered that his work was not mere sanitation as the term is understood in our ordinary municipal work. Throughout the zone and in the two cities of our ordinary municipal work. Throughout the sone and in the two cities of Panama and Colon, in addition to the sanitation work proper, he has had to do all the work that the Marine hospital service does as regards the nation, that the health department officers do in the various states and cities, and that Col. Waring did in New York when he cleaned its streets. The results have been astounding. The isthmus had been a byword for deadly unhealthfulness. Now, after two years of our occupation the conditions as regards sickness and the conditions as regards sickness and the death rate compare favorably with reasonably healthy localities in the United States. Especial care has been devoted to minimizing the risk due to the presence of those species of mosquitoes which have been found to propagate malarial and yellow fevers. In all the settlements, the little temporary towns cities composed of the white and black employes, which grow up here and there in the tropic jungle as the needs of the walk dictate, the utmost care is exercised to keep the conditions healthy. Everywhere are to be seen the drainage exercised to keep the conditions healthy. Everywhere are to be seen the drainage ditches which in removing the water have removed the breeding places of the monguist. This the whole jungle is away for a considerable space around the habitations, thus destroying the places in which the mosquitoes take shelter. These drainage ditches and clearings are in evidence in every settlement, and are in evidence in every settlement, and, together with the invariable presence of mosquito screens around the plazzas, and of mosquito doors to the houses, not to speak of the careful fumigation that has gone on in all infected houses, doubtless explain the extraordinary absence of mosquitages. speak of the careful fumigation that has gone on in all infected houses, doubtless explain the extraordinary absence of mosquitoes. As a matter of fact, but a single mosquito, and this not of the dangerous species, was seen by any member of our party during my three days on the inspectors of the health department to secure cleanliness in the houses and proper hygienic conditions of every kind. I inspected between 20 and so water-closets, both those used by the colored laborers. In almost every case I found the conditions perfect. In but one case did I find them really bad. In this case, affecting a settlement of unmarried white employes, I found them very had indeed, but the buildings were all inherited from the French company and were being used temporarily while other buildings were in the course of construction; and right near the defective water closet a new and excellent closet with a good sewer pipe was in process of construction and nearly finished. Nevertheless this did not excuse the fact that the ess this did not excuse the fact that the

the already existing population, which made to me by an entirely reputable to man as to the character of some of which they were for a long time not able to perceive. In Colon the population consists largely of colored laborers who, having come over from the work on the canal abandon the work and either take to abandon the work and either take to the brush or lie idle in Colon itself; thus peopling Colon with the least degirable among the imported laborers,

streets that are to be paved at all are already paved with an excellent brick pavement laid in heavy concrete, a few of the streets being still in process of paving. The sewer and water services in the city are of the most modern hygienic type, some of the service having just been completed.

In Colon the conditions are peculiar, and it is as regards Colon that most of the very bitter complaint has been made. Colon is built on a low coral island, covered at more or less shallow depths with vegetable accumulations

depths with vegetable accumulations or mold, which affords sustenance and strength to many varieties of low-lying tropical plants. One-half of the surface of the island is covered with water at high tide, the average height

everything at once.

Care of Employes.

Next in importance to the problem of sanitation, and indeed now of equal importance, is the problem of securing and caring for the mechanics, laborers and other employes who actually do the work on the canal and the railroad. This great task has been under the control of Mr. Jackson Smith, and on the whole has been well done. At present there are some 6,000 white employes and some 19,000 colored employes on the isthmus. I went over the different places where the different kinds of employes were working! I think I saw representatives of every type both at their work and in their homes; and I conversed with probably a couple of hundred of them all told, choosing them at random from every class and including those who came especially to present certain grievances

especially to present certain grievances olmost invariably expressed far greater content and satisfaction with the conditions than did those who called to

ditions than did those who called to make complaint.

Nearly 5,000 of the white employes had come from the United States. No man can see these young, vigorous men energetically doing their duty without a thrill of pride in them as Americans. They represent on the average a high class. Doubtless to congress the wages paid them will seem high, but as a matter of fact the only general complaint which I found had any real basis among the complaints made to me upon the isthmus was that, owing to the peculiar surroundings, the cost of living, and the distance from home, the wages were really not as high as they should be. In fact, almost every man I spoke to felt that he ought to be receiving more money—a view, however, which the average man who stays at home in the United States probably likewise holds as regards himself. I append figures of the wages paid, so that the congress can judge the matter for itself. Later I shall confer on the subject with certain representative labor men here in the United States, as well as going over with Mr. Stevens, the comparative wages paid on the sone and at home; and I may then communicate my findings to the canal committees of the two houses.

Chinese and Other Labor.

Chinese and Other Labor.

Of the 19,000 or 20,000 day laborers employed on the canal a few hundred are Spaniards. These do excellent work. Their foreman told me that

work. Their foreman told me that they did twice as well as the West Indian laborers. They keep healthy and no difficulty is experienced with them in any way. Some Italian labor-

ers are also employed in connection with the drilling. As might be expected, with labor as high priced as at present in the United States, it has

not so far proved practicable to get any ordinary laborers from the United

States. The American wage-workers on the isthmus are the highly paid

Unjust Criticism.

Care and forethought have been exercised by the commission, and nothing has reflected more credit upon them than their refusal either to go ahead too fast or to be deterred by the fear of criticism from not going ahead fast enough. It is curious to note the fact that many of the most severe critics of the commission the most severe critics of the commission criticise them for precisely opposite rea-sons, some complaining bitterly that the

PRESIDENT ON A STEAM SHOVEL



From storeograph, copyright, by Underwood & Underwood, N. T. At Pedro Miguel, Culebra Cut, President Roosevelt was photographed seated on one of the immense steam shovels used in the work of excavating.

shallow, natural reservoirs or fresh water breeding places for every variety of mosquito, and the ground tends to be lowest in the middle. When the town was originally built no attempt was made to fill the low ground, either in the streets or on the building sites, in the streets or on the building sites, so that the entire surface was practically a guagmire; when the guagmire became impassable certain of the streets were crudely improved by filling especially bad mud holes with soft rock or other material. In September, 1905, a systematic effort was begun to Traulate a general plan for the proper sanitation of the city; in February last temporary relief measures were taken, while in July the prosecution of the work was begun in good earnest. The results are already visible in the sewering, draining, guttering and paving of the streets. Some four months will be required before the work of sewerage and street improvement will be completed, but the progress already made is very marked. Ditches have been dug through the town, connecting the salt water on both sides, and into the sait water on both sides, and into these the ponds, which have served as breeding places for the mosquitoes, are their purpose, for they are probably the chief cause of the astonishing diminution of mosquitoes. More ditches of the kind are being constructed.

Colon Water Supply.

It was not practicable, with the force at the commission's disposal, and in view of the need that the force should be used in the larger town of Panama, to begin this work before early last winter. Water mains were then laid in the town and water was furnished to the needle carly in Month furnished to the people early in March from a temporary reservoir. This reservoir proved to be of insufficient capacity before the end of the dry season and the shortage was made up by hauling water over the Panama railroad, so that there was at all times an ample supply of the very best water. Since that time the new reservoir back of Mount Hope has been practically completed. I visited this reservoir. It is a take over a mile long and half a mile broad. It now reservoir. It is a lake over a mile long and half a mile broad. It now carries some 500,000.000 gallons of first-class water. I forward herewith a photograph of this lake, together with certain other photographs of what I saw while I was on the isthmus. mus. Nothing but a cataclysm will hereafter render it necessary in the dry season to haul water for the use of Colon and Cristobal.

less this did not excuse the fact that the had condition had been allowed to prevail. Temporary accommodations, even if only such as soldiers use when camped in the field, should have been provided. Orders to this effect were issued. I append the report of Dr. Gorgas on the incident. I was struck, however, by the fact that in this instance, as in almost every other where a complaint was made which proved to have any justification whatever, it appeared that steps had already been taken to remedy the evil complained of, and that the trouble was mainly due to the extreme difficulty, and often impossibility, of providing in every place for the constant increase in the sase; when it is not there ensues a period of time during which the conditions are unsatisfactory, until a remedy can be provided; but I never found a case where the remedy was not being provided as speedily as passible.

The sanitation work in the cities of Panama and Colon has been just as important as in the zone itself, and in many respects much mere difficult, because it was necessary to deal with the already existing population, which maturally had scant sympathy with maturally had scant sympathy with made to me by at entirely reputable maturally had scant sympathy with made to me by at entirely reputable manurally had scant sympathy with made to me by at entirely reputable manurally had scant sympathy with made to me by at entirely reputable manuals to the character of some of the same as to the character of some of the same as to the character of some of the same as to the character of some of the same size in the United States of the same size in the colon streets were some size in the streets to make the same size in the colon streets of a low Colon Pavements. I rode through the streets of Colon.

PRESIDENTIAL PARTY LEAVING HOTEL



segraph, copyright, by Underwood & Underwood, M. Y. Photograph of the President and Mrs. Roosevelt and party leaving the Tivoli hotel at Colon taken during the recent inspection of the canal by the

work is not in a more advanced condition, while the others complain that it has been rushed with such haste that there has been insufficient preparation for the hygiene and comfort of the employes. As a matter of fact neither criticism is just. It would have been impossible to go quicker than the commission has gone, for such quickness would have meant insufficient preparation. On the other hand, to refuse to do anything until every possible future contingency had been met would have caused wholly unwarranted delay. The right course to follow was exactly the course which has been followed Every reasonable preparation was made in advance, the hygienic conditions in especial being made as nearly perfect as possible; while on the other hand there has been no timid refusal to push forward the work because of inability to anticipate every possible of inability to anticipate every possible emergency, for, of course, many defects can only be shown by the working of the system in actual practice. In addition to attending to the health of the employes, it is of course neces-

allens in any event, is done by allens from one country with a black skin from one country with a black skin or by aliens from another country with a yellow skin. Our business is to dig the canal as efficiently and as quickly as possible; provided always that nothing is done that is inhumane to any laborers, and nothing that interferes with the wages of or lowers the standard of living of our own workmen. Having in view this principle, I have arranged to try several thousand Chinese laborers. This is desirable both because we must try to find out what laborers are most efficient, and, furthermore, because we cient, and, furthermore, because we should not leave ourselves at the mercy of any one type of foreign labor. At present the great bulk of the unskilled labor on the isthmus is done by West India negroes, chiefly from Jamaica, Barbados, and the other English possessions. One of the gov-ernors of the lands in question has

American workingman in the United States has no concern whatever in the question as to whether the rough work on the isthmus, which is performed by

Poor Mother!

Work of Construction.

But thousands of those who are brought over under contract (at our expense) go off into the jungie to live, or loaf around Colon, or work so hadive after the first three or four days as to cause a serious diminution of the amount of labor performed on Friday and Saturday of each week. I questioned many of these Jamaica laborers as to the conditions of their work and what, if any changes, they wished. I received many complaints from them, but as regards most of these complaints they themselves contradicted one another. In all cases where the complaint was as to their treatment by any individual it proved on examination that this individual was himself a West India man of color, either a policeman, a storekeeper, or an assistant storekeeper. Doubtless there must be many complaints against there must be many complaints against the ment of the policy of

Plan to Build by Contract.

part by contract than to do it all by the government, provided it is possible on the one hand to secure to the contractor a sufficient remnueration to make it worth while for respon-

Shonts, who went carefully over with Mr. Rogers, the legal adviser

the commission, to see that all legal difficulties were met. He then submit-ted copies of the plan to both Secre-tary Taft and myself. Secretary Taft

submitted it to some of the best coun-sel at the New York bar, and after-

Single Commissioner Desired.

A seven-headed commission is of course a clumsy executive instrument. We should have but one commissioner, with such heads of departments and other officers under him as we may find necessary. We should be expressly permitted to employ the best engineers in the country as com-

Confident of Ultimate Success.

Of the success of the enterprise I am as well convinced as one can be of any enterprise that is human. It is a stupendous work upon which our fellow countrymen are engaged down

there on the isthmus, and while we should hold them to a strict accounta-

bility for the way in which they per-form it. we should recognize, with frank generosity, the epic nature of the task upon which they are engaged

and its world-wide importance.

and its world-wide importance. They are doing something which will redoud immeasurably to the credit of America, which will benefit all the world, and which will last for ages to come. Under Mr. Shonts and Mr. Stevens and Dr. Gorgas this work has started with every omen of good fortune. They and their worthy associates, from the highest to the lowest, are entitled to the same credit that we would give to the picked men of a victorious army: for this conquest of peace will, in its great and far-reach-

best engineers in the country as sulting engineers.
I accompany this paper with a ma

protected. In a pince which has been for ages a bywert for sheathfulness, and with so large a congregation of strangure suddenty put down a d sat to hard work there will now a d that he outbreaks of densals. There will now and then he thericomaings in administration: there will be unlocked for accidents to delay the encountion and locks. Each such incident will be entirely nation: there will mean more than a little extra delay or trouble. For each, when of them will mean more than a little extra delay or trouble. For each, when discovered by sensation meagure and retailed to timid folk of little faith, will serve as an excuse for the belief that the whole work is being hadly managed. Experiments will continuative tried in housing, in hygiens, in street requiring, in dredging and in digging earth and rock. Now and then as experiment will be a failure; and among those who hear of it, a certain proportion of doubting Thomases will at once believe that the whole work is a failure. Doubtless here and there some minor rascality will be uncovered; but as to this, I have to say that after the most painstaking inquiry! I have been unable to find a single reputable person who had so much as heard of any serious accusations affecting the honesty of the commission or of any responsible officer under it. I append a letter dealing with the most serious charge, that of the ownership of lots in Colon; the charge was not advanced by a reputable man, and is utterly baseless. It is not too much to say that the whole atmosphere of the commission of spoils politics in connection with it.

I have investigated every complaint brought to me for which there seemed to be any shadow of foundation. In two or three cases, all of which I have indicated in the conclusion that there was foundation for the complaint, and that the methods of the commission in the respect complained of could be bettered. In the other instances where they referred to mistakes which the commission had already found out and corrected.

Sianders and Libelers. did not happen to make any such complaint to me.

The work is now going on with a vigor and efficiency pleasant to witness. The three big problems of the canal are the La Boca dams, the Gatun dam, and the Culebra cut. The Culebra cut must be made, anyhow; but of course changes as to the dams, or at least as to the locks adjacent to the dams, may still occur. The La Boca dams offer no particular problem, the bottom material being so good that there is a practical certainty, not merely as to what can be achieved, but as to the time of achievement. The Gatun dam offers the most serious problem which we have to achieved, but as to the time of achievement. The Gatun dam offers the most serious problem which we have to solve; and yet the ablest men on the isthmus believe that this problem is certain of solution along the lines proposed; although, of course, it necessitates great toil, energy, and intelligence, and although equally, of course, there will be some little risk in connection with the work. The risk arises from the fact that some of the material near the bottom is not so good as could be desired. If the huge earth dam now contemplated is thrown across from one foothill to the other we will have what is practically a low, broad, mountain ridge behind which will rise the inland lake. This artificial mountain will probably show less seepage, that is, will have greater restraining capacity than the average natural mountain range. The exact locality of the locks at this dam—as at the other dams—is now being determined. In April next Secretary Taft, with three of the ablest engineers of the country—Messrs. Noble, Stearns and Ripley—will visit the isthmus, and the three engineers will make the final and conclusive examinations as to the exact site for each lock. Meanwhile the work is going ahead without a break.

The Culebra cut does not offer such great risks; that is, the damage liable to occur from occasional land slips will not represent what may be called major disasters. The work will merely call for intelligence, perseverance, and executive capacity. It is, however, the work upon which most labor will have to be spent. The dams will be composed of the earth taken out of the cut and very possibly the building of the locks and dams will take even longer than the cutting in Culebra itself.

In Culebra Cut. Slanders and Libelers. So much for honest criticism. There remains an immense amount of as reckless slander as has ever been published. Where the slanderers are of foreign origin I have no concern with them. Where they are Americans, I feel for them the heartiest contempt and indignation; because, in a spirit of wanton dishonesty and malice, they are trying to interfere with and hamper the execution of the greatest

they are trying to interfere with and hamper the execution of, the greatest work of the kind ever attempted, and are seeking to bring to naught the efforts of their countrymen to put to the credit of America one of the giant feats of the ages. The outrageous accusations of these slanderers constitute a gross libel upon a body of public servants who, for trained intelligence, expert ability, high charactetr and devotion to duty, have never been excelled anywhere. There is not a man among those directing the work on the isthmus who has obtained his position on any other basis than merit alone, and not one who has used his position in any way for his own personal or pecuniary advantage.

In Culebra Cut. The main work is now being done in the Culebra cut. It was striking and impressive to see the huge steam shovels in full play, the dumping trains carrying away the rock and earth they dislodged. The implements of French excavating machinery, which often stand a little way from the line of work, though of excellent construction, look like the veriest toys when compared with these new much better to do the work in lorge on the isthmus are the highly paid skilled mechanics of the types mentioned previously. A steady effort is being made to secure Italians, and especially to procure more Spaniards, because of the very satisfactory results that have come from their employment and their numbers will be increased as far as possible. It has not proved possible however, to get them in anything like the numbers appearances we shall in the main have to rely, for the ordinary unskilled work, partly upon colored laborers from the West Indies, partly upon Chinese labor. It certainly ought to be dangeessary to point out that the RTY LEAVING HOTEL

RTY LEAVING HOTEL

We receilent construction, look like the veriest toys when compared with these new steam shovels, just as the French dumpling cars seem like toy cars when compared with these new steam shovels, just as the French dumpling cars seem like toy cars when compared with these new steam shovels, just as the French dumpling cars seem like toy cars when compared with these new steam shovels, just as the French dumpling cars seem like toy cars when compared with the set opportunity of the steam shovels, just as the French dumpling cars seem like toy cars when compared with the long trains of huge cars, dumped by steam plows, which are now in use. This represents the enormous advance that has been made in machinery, for some play steam plows, which are now in use. This represents the enormous advance that has been made in machinery, for some plows, or observed with the long trains of huge cars, dumped by steam plows, which are now in use. This represents the enormous advance that has been made in machinery. No doubt a quarter of a century hence this new machinery, of which we are now so proud, will similarly seem out of date, but it is certainly serving its purpose well now. The old French cars had to be entirely discarded. We still have in use a few of the more modern, as seam plows which are now accompany to the provide with the long trains of huge cars.

The provide with the long train the types men-steady effort is Italians, and es-more Spaniards, pared with the long trains of huge cars, contractor a sumcient remnueration to make it worth while for responsible contractors of the best kind to undertake the work; and provided on the other hand it can be done on terms which will not give an excessive profit to the contractor at the expense of the government. After much consideration the plan already promulgated by the secretary of war was adopted. This plan in its essential features was drafted after careful and thorough study and consideration, by the chief engineer. Mr. Stevens, who, while in the employment of Mr. Hill, they president of the Great Northern railroad, had personal experience of this very type of contract. Mr. Stevens then submitted the plan to the chairman of the commission. Mr. Shonts, who went carefully over it

New Records for Excavation. As soon as the type of canal was de-cided this work began in good earnest. The rainy season will shortly be over and then there will be an immense increase in then there will be an immense increase in the amount taken out; but even during the amount taken out; but even during the last three months, in the rainy season, steady progress is shown by the figures: In August, 242,000 cubic yards; in September, 291,000 cubic yards, and in October, 325,000 cubic yards. In October new records were established for the output of individual shovels as well as for the tonnage haul of individual locomotives. I hope to see the growth of a healthy spirit of emulation between the different shovel and locomotive crews, just such a spirit as has grown on our battle ships between the different gun crews in matters of marksmanship. Passing through the cut the amount of new work can be seen at a glance. In Passing through the cut the amount of new work can be seen at a glance. In one place the entire side of a hill had been taken out recently by 27 tons of dynamite, which were exploded at one blast. At another place I was given a presidential salute of 21 charges of dynamite. On the top notch of the Culebra cut the prism is now as wide as it will be; all told, the canal bed at this point has now been sunk about 200 feet below what it originally was. It will have to be sunk about 120 feet farther. Throughout the cut the drilling, blasting, shoveling and hauling are going on with constantly increasing energy, the huge out the cut the drining, basting, shovel-ing and hauling are going on with con-stantly increasing energy, the huge shovels being pressed up, as if they were mountain howitzers, into the most un-likely looking places, where their way into the hillsides. Railway Improvements.

Railway Improvements.

The most advanced methods, not only in construction, but in railroad management, have been applied in the zone, with corresponding economies in time and cost. This has been shown in the handling of the tonnage from ships into cars, and from cars into ships on the Panama railroad, where, thanks largely to the efficiency of General Manager Blerd, the saving in time and cost, has been noteworthy. My examination tended to show that some of the departments had (doubtless necessarily) become overdeveloped, and could now be reduced or subordinated without impairment of efficiency and with a saving of cost. The chairman of the commission, Mr. Shonts, has all matters of this kind constantly in view, and is now reorganizing the govhas all matters of this kind constantly in view, and is now reorganizing the government of the zone, so as to make the form of administration both more flexible and less expensive, subordinating everything to direct efficiency with a view to the work of the canal commission. From time to time changes of this kind will undoubtedly have to be made, for it must be remembered that in this giant work of construction, it is continually necessary to develop departments or bureaus, which are vital for the time being, but which soon become useless; just as it will be continually necessary to put up buildten years will once more give place to the years will once more give place to the great lakes at the ends of the canal.

Critics and Doubting Thomases. victorious army: for this conquest of peace will, in its great and far-reaching affect stand as among the very greatest conquests, whether of peace or of war, which have ever been won by any of the peoples of mankind. A badge is to be given to every American citizen who for a specified time has taken part in this work; for participation in it will hereafter be held to reflect honor upon the man participating just as it reflects honor upon a soldier to have belonged to a mighty army in a great war for righteous-It is not only natural, but inevitable, that a work as gigantic as this which has been undertaken on the isthmus should arouse every species of hostility and criticism. The conditions are so new and so trying, and the work so vast, that it would be absolutely out of the question that mistakes should not be made. Checks will occur. Unforeseen difficulties will arise. From time to time seemingly well-settled pians will have to be changed. At present 25,000 men are ensisted work as gigantic as this which have ever been won or of war, which have ever been won or of war, which have ever been won to save, any of the peoples of mankind. A badge is to be given to every American citizen who for a specified time has taken part in this work; for participation in it will hereafter be held to reflect honor upon the man participating just as it reflects honor upon a soldier to have belonged to a mighty will arise. From time to time seemingly well-settled pians will have to be given to every American citizen who for a specified time has taken part in this work; for participation in it will hereafter be held in the proposed time has taken part in this work; for participation in it will hereafter be held in the proposed time has taken part in this work; for participating just as it reflects honor upon the man participation. changed. At present 25,000 men are engaged on the task. After awhile the number will be doubled. In such a multitude it is inevitable that there should be here and there a scoundrel. Very many of the poorer class of laborers lack the mental development to protect themselves against either the rascality of others or their own folly, and it is not possible for human wisdom to devise a plan by which they can invariably be is thmus are working for our interest and for the national renown in the same efficiency that the men of the army and navy work in time of war. It behoves us in our turn to do all we can to hold up their hands and to aid them in every way to bring their great work to a triumpnant conclusion. THEODORE ROOSEVELT.

residents that the frogs deserted the For the first time in years the resi- pond, which has been their breeding dents of northern Chester county to- place for years, because the water is day saw a frog parade. Fully 100 too low.-Pottstown Correspondence

In Bad Shape. "I heard your new stenographer

"That's about right. When he gets Migrations of frogs in large bodies through with the job it looks very

nently and it is ready for the cleaning process. Take one and a half pounds of the best white laundry soap, one-half a pound of white-oak bark, three fourths of a pound of borax, one-fourth of a pound of fuller's earth, one-half a pint of good alcohol, onehalf a pint of ammonia, one-half an ounce of chloroform and four gallons of water. Tie up the bark in a piece of thin material and boil in two gallons of water for four hours. Keep boiling water at hand to replace that ost by evaporation. Now remove the pag, add the soap, shaved fine, the borax and the fuller's earth and let simmer until all are dissolved. Then add the other two gallons of water. which should be boiling bot, and when partly cool add the alcohol, ammonia and chloroform. This quantity will clean 30 yards of carpet.

To clean, dip out a cupful of the preparation, put it on the carpet, spread it and scrub with an ordinary bristle scrubbing brush. The spot scrubbed will be covered with lather. but the carpet will not be wet through. When all the dirt has been removed, scrape the lather up into a heap and take it up with a scraper, which can be had of any house-furnishing store, or a shingle with a smooth edge will answer very well. When the lather has been removed go over the carpet with a sponge wrung out of clean water and dry with a cloth.

SCIENCE OF DOMESTIC ECONOMY.

Necessary Knowledge if Home is to Be Made Happy.

Did you ever ask yourself the meaning of the term domestic economy? Most likely you never did. Notwithstanding the growing popularity of this branch of study, there is no subject the name and nature of which

is so generally misunderstood. Some young women think it means 'cookery and laundry lessons;" others thing "scraping and saving" would more fitly define it, while dim ideas of so-called menial duties and domestic drudgery float through the brains

of others. knowledge, a knowledge which relates to the intelligence and cultivated management of everything connected with

the home. It is the science of the home, and pre-eminently a woman's science. It is the woman's work to make the house into a home. Every woman. ought to know how to do all things. necessary to make a home happy,

says Woman's Life. The husband earns the money, but the principal part of it has to be spent by the wife. Hence it is very, important that all girls should learn. domestic economy. But please remember that domestic economy is. one of those things that cannot be learned from books alone.

Boon to Sewing Women. "The most sensible invention that I,

with Mr. Taft and Mr. Shonts, and we laid the plan in its general features before Mr. Root. My conclusion is that it combines the maximum of advantage with the minimum of disadvantage. Under it a premium will be put upon the speedy and economical construction of the canal, and a penalty imposed on delay and waste. The plan as promulgated is tentative; doubtless it will have to be changed in some respects before we can come know of," said the woman who makes her own clothes, "is the little leather thimble for the first finger of the left hand. Every woman who sews knows. how soon that finger becomes disreputable and untidy because of the frequent needle prints which it gets. to a satisfactory agreement with re-sponsible contractors—perhaps even after the bids have been received; and of course it is possible that we can not come to a agreement, in which case the government will do the work itself. Meanwhile the work on the isthmus is progressing steadily and without any let up. The work is always held over that finger and the needle is constantly taking off little slices of it or jabbing into it. At first it is sore, but soon . reaches the callous and unsightly stage where the flercest jab does not affect it. But it looks dreadful, and I know more than one woman who will not sew much because of it. , They are proud of their bands and say they. simply can't stand having a chawedup left forefinger. The leather thimble solves the difficulty, and I'm glad I accompany this paper with a map showing substantially what the canal will be like when it is finished. When the Culebra cut has been made and the dams built (if they are built as at present proposed) there will then be at both the Pucific and Atlantic ends of the canal two great fresh-water lakes, connected by a broad channel running at the bottom of a ravine, across the backbone of the Western Hemisphere. Those best informed believe that the work will be completed in about eight years; but it is never safe to prophesy about such a work airships are not the only things that occupy the minds of inventive peo-

Chicken with Macaroni. Cut chicken up as for a fricassee and dredge each piece with salt, pepper and flour. Fry a few slices of salt pork and brown the chicken in the fat. Then put all into a stewpan, cover with boiling water and simmer about one hour, or until tender. Take up the chicken, skim off the fat, and to the liquor add one rounding tablespoon each of butter and flour rubbed together; also one teaspoon of salt, a saltspoon of pepper, and one table-

spoon of lemon juice. Cook one-half cup of macaroni, cut in small pieces, in salted water, until tender; drain and add to the chicken gravy; cook ten minutes and serve with the chicken.

Cleaning a White Fur Rug.

I have a robe which has been used as a rug and was very dirty, says a writer in the Boston Globe. I suppose you mean the white ones with quilted lining. I put mine right into the washtub and put lots of soap powder into the water, also rubbed soap well into the fur. It has come out looking lovely. I forgot to say that I first put it on the line and beat it well. Wash early in the morning on a windy day and hang in the sun.

Patchy Wall Paper

If a patch must be applied to wall paper, let the new piece lie in strong sunlight until the colors are faded to match those on the wall; then tear the edges and the applied piece will not be so conspicuous.

Rice Pudding with Currents. Take half a pound of rice, half a

ound of currants. Wash the rice, tie it in a cloth, allowing room for it to swell, and put it into a saucepan of cold water. Let it boil for an hour: then take it up, untie the cloth, stir in the currants, and tie it up again tolerably tight, and put it back into the water for the remainder of the time. Boil for another hour, or rather longer, and serve with sweet sauce For rice custards or puddings prepared according to any different formula, simply add the currents.

HE FOOLED THE HOLDUP MEN.

Mailbox and Thus Saves It.

the first of a local lodge his pocket, addressed it to himself, plaining of the small amount they so whip him for it, and now she's a are seldom seen, especially at this sea much as if lightning had got its work nervous and physical week. and was returning home from a meet- stamped it, put the currency inside it cured, and the treasurer went home. nervous and physical wreck."

ing with a considerable amount of nded Victim Dumps His Money Into money in his possession, fortunately from behind him. the greater part of which was in cur-

recently that made his hair stand on in the West end and turned off a side grimly as the holdups secured only a "Yes," replied Popley, "that boy of wit in devising a means of getting out ticed that he was being followed by with pleasure of the money he had when we told him not to-" of the difficulty it might have cost him two suspicious looking men. Quick as put in the mail box in Uncle Sam's hearly, says the Duluth News-Tribune. a flash he pulled an envelope out of care. The robbers went away com-

and dropped it in the mail box. Then Next day the letter containing the he started on a brisk walk. Suddenly there came a command

Up went his hands and the robbers He got off a car quite a distance out went through his pockets. He smiled this morning," said Naybor.

money was delivered safely to his of-

"I saw the doctor at your house "And fell off and broke his-"Nary a fall! but my wife tried to

Frogs March to Winter Quarters. frogs of all ages, ranging from frogs Philadelphia Press. a score of years old to this spring's youngsters, left the schoolhouse pond recently that made his hair stand on in the west end and throught mine climbed out on the back roof and marched along the road to the boasting that he can work the typein Warwick township this morning up their winter quarters.