AN EASTERN VIEW OF PACIFIC COAST TIMBER PRESERVATION.

Prof. C. S. Sargent, Director of the Botanic Garden of Harvard University, writes an article on forestry for the *Nation*, in the course of which he presents his views on the destruction of timber on this coast and the means of restoring depleted forests. He thinks at the East the restoration may be left to individual and corporate intelligence and enterprises, and then continues as follows:

West of the Rocky mountains all is different. The country is cut up by high mountain chains overlooking narrow valleys. The rainfall is in parts of this region exceedingly small, and everywhere very unequally distributed throughout the year; so that once destroyed it would be difficult or, indeed, impossible to restore any forests of this region beyond the immediate influence of the Pacific ocean; while its peculiar topography demands that the mountain ranges remain forest-covered that the valleys may be habitable. Large portions of this Western territory are still in the hands of the general Government, and before it is too late, steps should be taken to set aside and scrupulously preserve at least such portions of forest-covered mountain ranges as give rise to important streams. It is probably already too late to preserve any considerable part of the scanty forests of the "Great basin." They are everywhere fast melting away to supply the enormous and often unnecessary demands of the mining enterprises of that region. These forests, which are of immense age, once destroyed, will never reappear, and the streams which now make agriculture possible in the valleys through irrigation will, at no distant day, flow only during a short period of the year. If any portion of this interior region is worth saving for agriculture, immediate steps must be taken to preserve the remnants of its forests, or it will not long support even its present small agricultural population.

More important still is the necessity for Government or State preservation of some part of the noble coniferous forest which graces the western slopes of the Sierra Nevada. The future of California depends on the existence of this forest. Nowhere on the face of the globe is the physical necessity for preserving the forests greater than in California; nowhere has the world seen its forests so rapidly and senselessly destroyed. We will briefly examine what the dangers are which threaten California, and what should be undertaken to prevent or at least diminish them. All along the western slope of the Sierras numerous rivers head, which, flowing westward through the rich foothills and great plains of California, fall into the Sacramento and the San Joaquin, the one flowing south and the other north, and at length emptying into the bay of San Francisco. Through these rivers must pass all the moisture, not absorbed by the soil, which the Sierras attract from the ocean lying almost at their feet. The annual precipitation of moisture in these mountains, although almost exclusively confined to the winter months, is still very large, a fall of 60 feet of snow during an exceptionally severe winter having been reported in the high Sierras. It results that in the early summer months, when the snow is melting, these mountain streams become large and rapid rivers, carrying off immense volumes of water, and then almost entirely disappearing with the snow. As they are not replenished by summer rains, the length of their annual duration must depend on the slowness with which the snow at their sources melts. It is a well-known fact that snow melts much less rapidly, and that much more of it is absorbed in the forest than in the open ground; while the forests on a mountain side offers great mechanical resistance, especially by their undergrowth and coating of fallen leaves, to the rapid running off of water or melting snow. If the forests of the Sierras are destroyed, their annual snowfall will probably not be materially diminished. The length of time, however, required to melt it will be much shorter; and the absorbing power of the forest being gone, the volume of water passing through the rivers will be greatly increased. It is not difficult to foretell the results. Every season, earlier at the south, later at the north, torrents, more terrible and more destructive than the history of the world records, will carry during a few weeks death and desolation from the mountain-sides down over the foothills, covering the plains with debris and holding the cities lying along the low banks of the larger rivers at their mercy. And then, when this terrible rush of a few days is over, it will be found that the whole supply of water for the summer is exhausted. The foothills and the plain will no longer produce fruits or vegetables, or any summer crop for which irrigation is essential, for no water to irrigate with will come down from the mountains. "Placer mining" will be a thing of the past, and even the navigation of the great rivers will be either interrupted or abandoned. During the last 50 years more than one country in Europe has been visited by calamities similar in origin and extent to those which now threaten California, but in none of them were the physical reasons for the danger so great. The mountains from which the destructive torrents of Europe have sprung are lower than the Sierras, less heavily forest-clad, and enjoying a more regular precipitation of moisture with a much smaller snowfall, and so less able to produce sudden and disastrous torrents.

There is but one remedy for the dangers we foretell, and on its adoption depends the future of California. A strip or strips of forest must be set aside along the western slope of the Sierras extensive enough to secure the natural flow of rivers, and these reservations must be strictly guarded from fire, the axe, and especially from all browsing animals. It is in her boasted millions of sheep that California's greatest danger now lies. These, with countless herds of other browsing animals, are driven up every summer from the plains into the mountains to feed during the dry season. The damage they are inflicting in the Sierra forests is terrible and indescribable. One can ride for days at a certain elevation through the mountains along the sheep-trails without seeing outside of the rare ranch enclosures a single uninjured shrub or a seedling tree of any sort. Everything the sheep can reach is eaten clean. This means that there is nothing left of the forest but its older trees, and that it has lost or is fast losing its best element for holding back melted snow; and it means, too, that there are no new trees coming on to take the place in their turn of their parents. As the number of animals driven to the mountains increases, forest fires increase also, set by the shepherds either accidentally or purposely to increase the next year's feed. A forest annually wasted by fire, on which the axe is always making terrible inroads, and in which no young trees are allowed to spring up, is clearly doomed. When that of the Sierras, the noblest of our continent, has gone, nothing will stand between California and the dangers which threaten her. To preserve California is the first and greatest duty of American forestry. The task is a difficult one, but it can be accomplished if her people desire it.

THE TREATMENT OF SPRAINS. Mr. Dacre Fox, an English surgeon to a large railway company, who has had considerable experience of this form of injury, says that in the more severe cases he finds that after a few days of fomentation the best treatment is regulated pressure by means of carefully adjusted pads and large plasters of a special shape, varying according to the particular joint involved. By this plan he feels sure that it is possible to control the effusion into the sheaths of the tendons and adjacent structures, to lessen the pain, and to shorten the duration of treatment.

"On this head," said the lecturer, "there is nothing left to be desired." The ball-headed man in the front row immediately rose to call to order.

LIGHTENING THE BURDENS.

"I wish to goodness I had broken it!" and, rising from the fall a careless step had caused, she examined the bruised and painful arm; which now would prove only a new weariness, an added weight to the daily burden; while, if she could only have *broken* it, the burden would have been lifted for a brief season from the tired shoulders, and, conscience quieted by the inevitable necessity, she would willingly have purchased the *rest* that it would bring with the suffering that must follow. Then gathering up the wood once more she passed in, leaving us a lesson in the exclamation worth considering.

Must life, indeed, be only a hardship? surely not; if those who have the power, have also the will to make it something else. The first step is the determination that a change shall be made; the wish for improvement and pleasure must lead to a resolution that the cup of life shall not contain altogether a bitter draft, but shall be sweetened by love, encouragement and such aid toward intellectual progress, as honest and faithful endeavor can render. Those three sweet comforters can do more toward reconciling a woman's heart to the absence of wealth, that can furnish ease and luxury, and fill it with purer contentment than riches alone can do.

The next step is to remember, always, that happy results follow the smallest beginnings. One cannot make a *great* change in life or nature, by ever so firm a resolve to walk another road, but they can enter upon it, and if patiently and earnestly followed, they will gather the roses and find many a dear delight.

Even if the hands are full of care, and the days seem all too short for the many duties, plan for a moment in which to look over a paper or magazine, that you may gain some item of information or a noble thought, that shall lead your own above the weariness of your life. If you can make this a daily habit (and many can do so much more), it will create an atmosphere in which your mind can rest and expand, while your hands are busy.

It is said that the constant contemplation of small things narrows a woman's mind, and so I feel that we must contemplate just as many great things as our circumstances will allow. Perhaps you think that such do not come within your horizon; but the habit of looking for them, and of gaining from the minds, books and lives about us, the best that they possess, will surely enrich us greatly, making us more capable, companionable and interesting. You know we are beloved, not in the proportion duty dictates, but simply in the degree in which we render ourselves lovable; and will we not more probably accomplish that result by striving patiently amid many discouragements, to cultivate our minds and guard our tempers, despising not the refining influence of neat, becoming and pretty attire, rather than by yielding up all such ambitions to that inexorable task-master "work," who will absorb all our energies, strength and thoughts, unless we are watchful and guard a portion of all for higher purposes? In the field we have just been glancing over, the RURAL PRESS has been doing a noble work, and I wish to express my true and earnest appreciation of it before closing this little visit with my friends among its readers, into whose faces I have never looked.—*S. C. B. in Pacific Rural Press.*

TREATMENT OF DIPHTHERIA.—Dr. Bachelder, in an Australian journal, says: "I would suggest to physicians, in treating diphtheria, to use internally a very weak solution of carbolic acid, and for the throat or fauces a solution of hydrochloric acid, about the strength of strong cider vinegar. I have treated every case successfully, so far, with the above remedies. Croup is instantly relieved by the acid solution. Apply it to the throat with a brush or sponge, or use as a gargle."