SOMETHING ABOUT "DUFF."

ITS IMPORTANT PART IN THE ECONOMY OF THE FORESTS.

A Huge Spring Which Retains Water From Rainfalls — Feeding the Rivers and Brooks.

"There is a monstrous lot of ignorance about forestry in this country," said an old Maine woodsman the other day. "Many even of those who want to see our forests preserved have no intelligent conception of the part which forests play in the economy of nature. There is W. H. H. Murray, for instance, an intelligent man who knows a good deal is W. H. H. Murray, for instance, an intelligent man who knows a good deal about woodcraft, and yet he falls into the mistake that forests can be thinned out by judicious cutting of the old trees without any evil results. As a matter of fact, such a practice, at least in Maine, would destroy the lumber industry, as well as the forests, for it would let in the sunlight and that would most effectually dry up the 'duff.'

"You don't know what 'duff' is? Of course not; and yet 'duff' is one of the most wonderful of nature's provisions for the storage of moisture, necessary for the trees themselves and for the lumbermen. Of course you know that all

for the trees themselves and for the lumbermen. Of course you know that all tree felling takes place in winter. The trees felled are hauled on the ice of lakes, ponds, rivers and brooks, or on the banks thereof, where they can be easily launched in the spring. From the time when the ice disappears until late in June, or into July, the lumberman is busy on the drive, working his logs to market by water. Everything in fact depends on a good supply of water. And if it fails early in the spring before his work is done his logs are 'hung up' for that year, resulting in a serious loss to him. Not only, therefore, must the water be high, but it must continue high for many weeks; and this is where nafor many weeks; and this is where na-ture comes in with her 'duff.'

"You know how quickly the spring freshets subside in an open country where the sun has a chance to melt the ice and snow. Within a few days, may be, the earth dries up and the swollen rivers and brooks subside to their ordinary summer condition. But in the primeval forest it is not so. Here for generation after generation trees have sprouted, grown and died, and each succeeding year the great bulk of buds and leaves which have been fed by the sapund the attractions withten and fall to and the atmosphere wither and fall to the ground. In this way, in process of time, is found a mass often covered with beautiful moss, sometimes two or three feet deep, known to the lumbermen as "duff." It is simply a huge sponge, "duff." It is simply a huge sponge, which absorbs millions of gallons of water from the fall rains, which is later most effectually sealed up by the frost, and is then covered by the winter snow. If the sunlight should be let in on it by thinning the trees it would disappear in one season. But if nature is not inter-fered with a most wonderful process takes place.

"When the spring thaw occurs the ice, snow and frozen moisture in the open country are quickly released and help to swell the running streams. While this lasts the lumberman gets more water than he needs, but it doesn't last long. Then the 'duff' appears as his good angel. On the water-shed of the waters through which his drive passes, there lies this huge sponge, two or three feet thick and hundreds of square miles in extent, saturated to the brim with water. And, as the heat increases, Dame Nature pro-ceeds gradually to squeeze and wring out this sponge, not in one day or one week, but all though the spring and well into July. As a result of this invisible compression water slowly oozes from under every rock, leaf and twig, and flows in driblets to swell the rivers and brooks. Long after the ponds which are fed from the cultivated fields have fallen to their low-water mark, the streams fed by the forest 'duff' are flowing full and steady. There are no snows in the woods; but the 'duff,' which might be called a mighty lake held in solution, keeps up the high-water mark for many weeks, thus enabling the lumberman to get his logs to market and in other ways serving the highest interests of man. For what could we do without rivers, aside from the lumber question? And how are we going to have rivers if we allow Nature's reservoir, known as 'duff,' to be de-stroyed?

stroyed?
"There is a good deal of interest in forest preservation nowadays and I am glad to see it. But I would like to see gian to see it. But I would not by the organization of a 'Society for the Defence of Duff.' That would get people from vague generalities down to actual facts. What is 'duff'? would be the first question of the members, and in get ting the answer to that question they would come in possession of a heap of knowledge about forestry that would very much increase their love for trees and their desire to protect them. New York Tribune. York Tribune.

Disagreeable for Hawk and Mouse.

A Waco (Texas) sportsman was returning from quail shooting when he perceived a sparrow hawk poise in the air a short distance from him and then dart fiercely down into the grass. In a a moment the bird flew upward with something in its talons and uttering cries in which sente rain and the fierce joy of something in its talons and uttering cries in which acute pain and the fierce joy of victory seemed somewhat queerly blended. It kept screaming and pecking at a small object in its claws.

The sportsman brought his gun to his shoulder and killed the bird. The bird shoulder and killed the bird.

had driven his claws into the back of the mouse, perforating the skin, passing beneath two ribs of the little animal and piercing the skin again in such a man ner that it could not turn its catch loose The tortured mouse on his part had seized one leg of the bird in his mouth and buried his teeth into it just above the joint in the leg, cutting the bone en-tirely in two. Both mouse and bird had been killed outright by the human ani-mal of prey, the mouse having received a shot in the side and the bird one in the head .- Chicago News,

Kalakaua and the Mind Reader.

Kalakana and the Mind Reader.

J. Randall Brown, the mind-reader, once saw King Kalakana in the Sandwich Islands. His Majesty during the interview, which was arranged in order to give Brown a chance to exhibit his powers, tried to foil the expert by doing his thinking in the native language, but Brown quickly translated the thoughts into English and explained the matters to the King. Kalakana was then invited to secret a button anywhere in the room. Instead of hiding it in the room he concealed it in his mouth. Brown was puzzled for a moment, but finally told the King that the button was in his mouth. Determined not to let the mindreader get ahead of him, King Kalskana attempted to swallow the button. It was a task more difficult than His Majesty had anticipated and he narrowly escaped choking to death. His physicians and attendants were angry and indignant, and blamed Brown, but, the King recovering, the mind-reader the state of the state and indignant, and blamed Brown, but, the King recovering, the mind-reader was allowed to leave the islands. Had was allowed to leave the islands. Had King Kalakaua choked to death on the button, Brown would have been fortunate in making his escape. As it was, the King sent him a number of presents, and complimented him upon his triumphs.—Atlanta Constitution.

The California Legislature is to be asked to provide special legislation to encourage the culture of ramie in Califor-

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baric splendor associated with them.

We learn from Allahabad, under recent date, that though there has been a sudden development of trade between British India and Cashmere it has been accompanied by an equally rapid shrink-age in the export of shawls, as during the last four years the decline has been to

the extent of 64 lakhs of rupees.

All lovers of the beautiful in textile art would see its extinction with regret. Manchester (England) Textile Mercury.

The latest town to start a stock-yards and packing-house is Dubuque, Iowa. The capital stock of the company is \$500, 000, and is supposed to be held mainly by Chicago parties.

The casualties from fast driving in London, England, last year were 250 persons killed and 5000 injured.



coming of winter as a constant state of siege. It seems as if the elements sat down outside the walls of health and now and again, led by the north wind and his attendant blasts, broke over the ramparts, spreading colds, pneumonia and death. Who knows when the next storm may come and what its effects upon your constitution may be? The fortifications of health must be made strong. SCOTT'S **EMULSION** of pure Norwegian Cod Liver Oil and Hypophosphites of Lime and Soda will aid you to hold out against Coughs, Colds, Consumption, Scrofula, General Debility, and all Anæmic and Wasting Diseases, until the siege is raised. It prevents wasting

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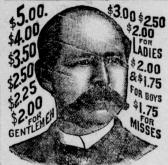
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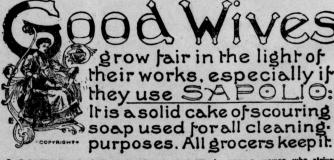
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