Prof. Henry C. Adams writes that in Michigan the tendency is in harmony with that observed by Dr. Shaw in Minnesota.

President Pickard of Iowa State University finds the most striking feature in the recent legislation of Iowa to be the number of legalizing acts passed. He says that twenty-five per cent of all acts passed were designed to correct carelessness or ignorance of officers and municipal corporations; but Prof. Jesse Macy of Iowa College says that Iowa is side by side with Minnesota, and cites in evidence a number of acts passed at the last session of the Legislature. The Legislature passed laws strengthening the prohibitory liquor legislation, it made elaborate statutes regulating the practice of pharmacy and medicine, it looked after the miners' interests through a commission, it provided an arbitration board for the settlement of labor-difficulties, it laid new duties on the board of health concerning canned goods and inflammable oils, and passed a large number of laws of the same general tenor.

Ex.-Pres. A. L. Chapin of Beloit College, Wisconsin, thinks that State interference has not gone so far in that State as in Minnesota, though it is plainly seen in numerous enactments.

Mr. Frank R. Morrissey of the Omaha *Herald* represents Nebraska in our correspondence, and finds a marked tendency to sumptuary legislation in his State.

From the Pacific coast we hear of this tendency, though in California the new State constitution seems to have repressed it to a great extent. Mr. A. H. Agard of Oakland writes that proposed legislation in California manifests the tendency in question; but little progress is made, because the Legislature is restrained by the provisions of the State constitution, which forbids the enactment of laws termed 'special.' The effort on the part of the Legislature is to frame laws of such a character that they will operate restrictively, and yet not be declared unconstitutional by the Supreme Court. It might be termed 'forbidden legislation by adroit evasion.' The particular manifestations of interference just now are against the Chinese, against 'monopolies,' hydraulic mining, and the retail liquor-trade.

It will thus be seen, from this brief summary of the evidence we have gathered, that State interference has a tendency in general throughout the United States. It is more extreme in some States than others; and our analysis of the laws of Massachusetts, New Jersey, and Illinois, shows it to be particularly progressive in those States. It remains to present the various opinions entertained toward State interference by our representative correspondents.

[*To be continued.*]

THE NEW ROUTE FROM ENGLAND TO EASTERN ASIA, AND THE HUDSON BAY ROUTE.

A FEW weeks ago the first steamer coming from Yokohama arrived at Vancouver. Thus the new line from England to eastern Asia by way of the Canadian Pacific Railroad has been opened. In order to show the merits of this route as compared to the American Pacific railroads, we have drawn up the accompanying sketch-map. We have chosen the gnomonic projection, as it is the best means to show the shortest route between two points. The earth's surface is projected from the centre of the globe upon a tangential plain touching it in latitude 60° north and longitude 120° west. In this projection all great circles, i.e., the shortest lines between two points, are represented by straight lines. The map extends from England in the east to Yokohama in the west. It makes it clear why the North-west and North-east Passages were so eagerly sought for. They are the nearest to the great circle between England and China, which runs right through the Polar Basin. The nearer a route approaches this great circle, the shorter it is. Therefore it will be seen that the distance from London to Yokohama, *via* the Canadian Pacific Railroad, would be by far the shortest. There are several facts, however, which detract from the value of this route. We have drawn out the great circle between London and New York. It will be seen that it crosses Newfoundland. Yet ships do not keep close to the southern point of that island, on account of the numerous dangers obstructing their passage, but prefer to go a round-about way, keeping far south. The same difficulty is encountered in approaching Halifax; and therefore the longer route to New York is by far to be preferred to the shorter one to Nova Scotia, particularly in the latter part of the winter and in spring, when ice is met with in the Atlantic Ocean. The Gulf of St. Lawrence is not navigable during part of the year on account of the heavy masses of ice. Thus the shortness of the route from England to Nova Scotia is more than counterbalanced by the dangers of navigation.

But even from New York the Canada route to Japan is far shorter than that by way of San Francisco. The difference in length between the great circle San Francisco–Yokohama and Vancouver–Yokohama may be seen on the sketch-map. It must be considered, however, that the latter cannot be made use of, as it crosses Alaska and the Aleutian Islands. Steamers must keep farther south, and must strike the San Francisco route near the longitude of the west point of Alaska Peninsula. This makes the distance from Vancouver to Yokohama somewhat longer than it would be without this chain of islands intervening. The distance from New York to Puget Sound by way of the Northern Pacific Railroad is longer than by the Canadian Road, as Lake Michigan extends so far south; but when the road from Umatilla Junction to Tacoma is finished, the difference in the two distances will not be very great. The sea-route from Tacoma to Yokohama is of course essentially the same as that from Vancouver. The great circle between these places and the ports of China runs nearly through the Tsugaru Strait, passing Hakodadi.

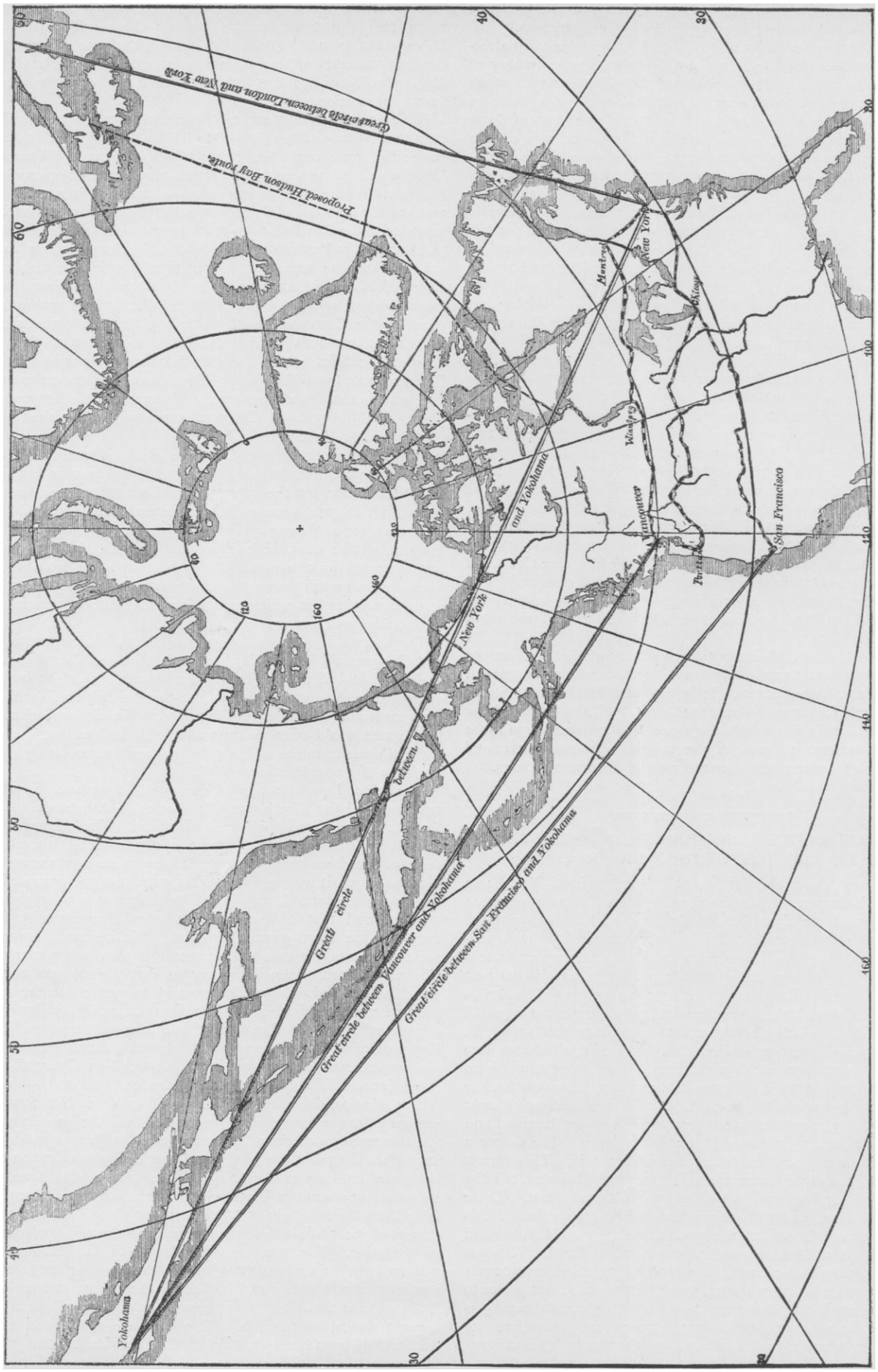
When the work on the Canadian Road is completed, it will probably be not more frequently obstructed by snow-drifts than the Northern Pacific, but the difference in distance between these two lines is not so great as to exclude a successful competition.

The harbor of Vancouver is Burrard Inlet. It is sheltered from the sea, but the entrance is somewhat difficult, being very narrow and occupied by tide-races. The shortest route from the port would lead through the narrow channels between Vancouver Island and the mainland, in which navigation is difficult on account of the strong tides and numerous rocks.

The shortest route from the ports of the Atlantic coast to Japan and China would lie even farther north than the Canadian Pacific Railroad; and if the Saskatchewan branch should be built, and continued to the northern part of the coast of British Columbia, the distance would be still more diminished. We do not believe that the climate would offer insurmountable difficulties, but the settlement of these countries will not be so rapid as to justify the construction of a new Pacific railroad.

The railroad question is of the greatest importance for the development of the North-west Territories, — Athabasca, Alberta, Saskatchewan, Assiniboia, and Manitoba. The distance to the nearest ports is so long that export is very difficult: therefore endeavors have been made to open a new route by making use of Hudson Bay. It will be seen on our map that the proposed Hudson Bay route from Liverpool to Port Nelson is very short and straight, and that it would offer a splendid opportunity for the export of the North-west Territories. We believe, however, that the character of the seas will prevent the plan being carried out. The railroad-route from Winnipeg to Port Nelson has been surveyed, and no serious obstacles are said to exist; but the railroad must be continued farther north to Fort Churchill, as Port Nelson is not a safe harbor. The navigation of the west coast of Hudson Bay, particularly for large vessels, is very difficult on account of its shallowness, and the construction of piers in Fort Churchill will be expensive and difficult on account of the ice.

The principal difficulty is the navigation of Hudson Strait. Its eastern entrance is blocked by pack-ice until the middle of July. A passage may sometimes be forced early in June by a ship well strengthened against the pressure of the ice, but navigation cannot be opened until about the 10th of July. About this time, ice is still whirling around in Ungava Bay, patches are found near Charles Island, and Fox Basin is filled with very heavy and dangerous masses of ice. We believe that these form the principal obstacles to navigation. The light ice of Hudson Bay and Hudson Strait will not form serious obstacles late in the season; but a spell of northerly winds will invariably drive the heavy masses of Fox Basin into the Strait, and a ship caught in this ice will be in an extremely dangerous position. The floes are small, and attain a thickness of from twenty to thirty feet. This ice frequently blocks



SKETCH-MAP SHOWING SHORTEST ROUTES FROM THE UNITED STATES TO EASTERN ASIA.

(This map is so projected that a straight line shows the shortest distance between two points.)

up the passages between the islands at the western entrance of Hudson Strait, where it is kept in rapid motion by strong currents. Log-books kept by whalers show that it is frequently found in Hudson Strait in September. We should say that the passage will never be safe, and that large freight-steamers, such as would be required for this trade, cannot be run longer than from the middle of July to the first days of October. It is improbable that under such circumstances a railroad to Fort Churchill and a line to Hudson Bay would pay. The shortness of the season and the dangers of the ice are so great, that this line cannot attain a great commercial value.

THINKING IN SHAPE AND PICTORIAL TEACHING.

THE Rev. Edward Thring of Uppingham, the well-known author of 'Theory and Practice of Teaching,' spoke before the teachers' guild in London recently on thinking in shape and pictorial teaching. Mr. Thring began by drawing attention to the vital distinction which divides mankind, consciously or unconsciously, into two classes, — those who value knowledge, and those who value the seeing heart and the seeing eye. The pursuit of knowledge is the creed of the first. Knowledge he defined to be for the multitude second-hand information, which, however valuable, may, like gold in the desert, be utterly useless. He then showed, that, precious or not, few get it, and that the unsuccessful attempt to get it is deadly to living power. Living power is required, and can only be given by teaching pupils to think in shape; that is, to train the mind, whenever it sees any thing, to find out at once what thought made the shape it sees; and, on the other hand, to take every word used and put it at once into some definite shape, example, or reality. Examples of this were given, showing the difference between an arithmetical fact and living feeling, between words and memory and a vivid mental picture. Then the lecturer proceeded to show that every word not vividly understood is a cipher, and that words are not vividly known, and never can be vividly known, unless thinking in shape is taught and practised. After showing the failure of memory-work, the lecturer pointed out that the commonest objects cannot be described correctly, because no one has been taught to see what they really are. A common chair can be made to give a history of thought and life and experience taking shape, and to lead up to the great fact that every shape is such a history, a living narrative, and the whole world a great illuminated volume of thought, speaking through shape which can be read by those who have learned to read thought in shape. But if this is so, then all shape is a language speaking truth or falsehood, giving honor or dishonor. And it does matter whether rooms and appliances are worthy or unworthy. How, then, has England treated lessons? Let the class-rooms in all their meanness answer. Then what class-rooms ought to be was shown, and examples brought forward of pictorial teaching. The way in which walls can be decorated without the painter going near the wall was explained, and designs for wall-decoration given. The treatment of books, and what is needed for books, next claimed attention. Then the effect on language of thinking in shape was dealt with, and the true progress of art by expression ever becoming more vivid in word and painting.

"Thinking in shape and pictorial teaching at once turn all created things into new language for thought. Every created thing becomes, on the spot, a possible new bit of thought, a possible new word born into the world of speech. I throw out, as a suggestion for any master of language, as distinct from a doctorer of words, to examine into the curious fact, that in the last eighty years the English language has in this way doubled itself, by flashing new light into old words, by new combinations of words, by freer use of allusions and metaphors, and by pictorial handling of its material; and that it is practically a new language, in its wonderful increase in power of expression, and the breathing of new life into its shape. For expression goes on forever, as higher life produces higher manifestation of life, feelings, and thought, in human face and form, and again becomes able, by being higher, more sensitive, more sympathizing, not only to see and interpret the new shapes, but to find endless riches of unknown stores of precious discoveries in the old. This is the only true path of progress.

"The pictorial mind first pictures to itself all its own ideas, and thinks in shape; and, secondly, is ever extracting ideas, new and old, out of the things it sees, picturing to itself all the words it uses, translating and retranslating thought into shape and shape into thought, till all things live and move for it in a universe that is living thought incarnate. The lesson-book is always before it. In city or desert, church or hovel, street or field, with flower, or tree, or cloud, or sun, or animal, or bird, or insect, from end to end of all things, there is the everlasting voice crying, 'He that hath ears to hear let him hear, he that hath eyes to see let him see, for life infinite, language universal, lies at your feet for pleasure and use always.' The pictorial mind is the only power man has that is capable of infinite progress. It is the only power that belongs to all men. It is the only power that is within reach of the poor. It can be taught. It can almost be created.

"As the world goes on and knowledge increases, it will be more and more impossible to know it all, a thing which was once quite within reach. Every man, however learned, will be narrowed by degrees down to a single subject. But subjects are many. There are a thousand languages, for instance; to know how to speak even half a dozen really well is an achievement; and so on, through the whole range of knowledge. How can any one man cope with this accumulation of facts? Boasts of knowledge, therefore, belong to the nursery level, betokening stupendous ignorance of man's capacity for knowing, and of what there is to know. Let us get out of the nursery and betake ourselves to true progress, and men as they are."

But "as long as examinations reign, there can be no true teaching," said Mr. Thring, "and thinking in shape and pictorial teaching find no place."

MENTAL SCIENCE.

Can the Mind attend to Two Things at Once?

THIS question has been frequently asked, and variously answered, according to the conception of 'attention' and of the objects to be attended to. Those who lay stress on the unity of mind regard it as almost evident *a priori*, that but one concept can occupy the focus of attention at a time, and that, if apparently many are entertained by consciousness at the same moment, it is simply because of the rapidity with which the attention can flit from one to the other. The holders of the opposite view call attention to the fact that in the quickest possible glance, in the flash of an electric spark, we get a view of an object, capable of being analyzed into a series of concepts, and that we saw every one of these as well as any other. A French psychologist, M. Paulhan, has recently stated the problem in its proper aspect, and illustrated the position he takes by some very interesting experiments. What is at one time the sole object of attention, completely filling the field of consciousness, may at another be only a small part of that field. Attention, like the lens of the eye, is now accommodated to act as an instrument of near focus, high magnification, but limited aperture, and again as one of distant focus, small magnifying-power, but wide range. At one time we see the rider and the horse as a single object; at another they are two. Admitting, then, that the object of attention is determined by a subjective element, by interest, by importance, by attractiveness, or what not, it remains to similarly determine the meaning of 'attention.' Just as memory is, from one point of view, not a single faculty, but a co-ordinated set of separate, individual memories, so attention is capable of various degrees of intensity, of various subdivisions of function. There are currents and undercurrents of attention. The eye may be intently engaged in looking for a friend, while the ear is drinking in the notes of a symphony, and we are suddenly conscious of a draught in the room. Whether or not there is a loss of energy between these occupations is to be determined by experiment.

M. Paulhan wrote the lines of one poem while reciting the words of another. The two series would sometimes get confused, a word, syllable, or prominent letter of the recited verse creeping into the written; but such mistakes soon became rare. The two series are largely strung on separate strings, and proceed in parallel directions. To repeat one poem aloud, and mentally go over the words of another, caused greater confusion.

If we compare the sum of the times necessary to perform each act separately with the time necessary to perform the two together,