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J. T. S., of N. Y.—High piston speed is a desirable element in an engine, but we cannot see how a much higher velocity can be got with a pair of double engines than with one engine of the pair. Some advantage may be derived from one helping the other off its centers, but if one engine runs 600 fect per minute, it does not follow by any means that two engines will run 1,200 feet A high piston speed is economical, other things being equal. Any engine will run at high speed if you give it steam high enough and it is sufficiently large for the work. Mr. John Wiley, of Broadway New York, will furnish you with a book on ship-build

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F. E. W., of Mass.—You are mistaken in regard to the law. Unless you made a definite agreement with your workman to get up the improvement for you, you could lay no claim to it. He is employed by you to do a certain amount of work for certain wages, but has not pledged to you the result of his ingenuity in de vising new inventions. This is as we understand the matter.

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B. & D., of N. H.-Steam causes the whistle to vibrate rapidly, that is what gives the sound. The steam strikes the thin edge percussively, or like a hammer, and that is what makes the vibrations. The pitch or note of all musical sounds is determined by the number of vibrations occurring in a given tin

J. H. C., of N. H.—If the watch falls with the same ty of course the shock] on the pivots of the balance where the same; but with a thicker case it would fall through the air with slightly greater velocity.

J. F., of N. Y.-Messrs. Balliere & Brothers, No. 440 Broadway, New York, have published a treatise on coal oil and pe troleum by Abraham Gesner, M.D., F. G. S.

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A. K., of N. Y.—The mechanical powers are the lever, the pulley, the wedge, the inclined plane, and the scre

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was about six inches of snow on the ground and it was fast increasing, a gentleman was carrying a bag of gold through Wall street; the bag ripped and a number of pieces fell in the snow, his predicament was peculiar: he could not leave what he had dropped for obvious reasons, he could not count what he had left so as to ascertain how much he had lost, he could not tell how many pieces there were under the snow. So all he could do was to rummage with benumbed fingers in all the snow on that part of the sidewalk, and with an amused audience to witness the performance." This coin safe can be conveniently carried in the hand like a carpet bag, and will, no doubt, become popular with our business firms. A patent is now pending through the Scientific

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Scientific American,

FOR 1864!

VOLUME ELEVEN

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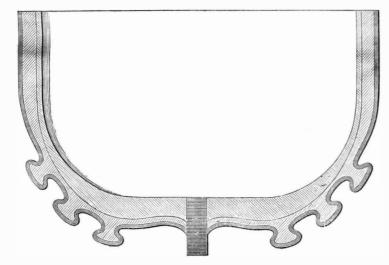
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regardless of the laws of hydraulics, and entirely at of the handle with the body has two small turn the mercy of the waves. There is no affinity between the vessel and its element. It rises and falls, rolls and pitches, without the least control over the waters around. My theory is, when my attachment is placed on a vessel's bottom that the tendency to roll is counteracted by the resistance these folds offer. They clench the water like so many fingers, and keep the vessel from rising above its true center of gravity, as the water and vessel-retain their mutual hold of each other. Thus when a vessel is lifted by the powerful action of the sea, the momentum given exceeds that of the wave itself, and consequently she plunges at random, or rolls by her momentum beyond the requirement of the element by which she is surrounded; in fact she does not roll on a safe center of gravity.

"Practical men who have examined it, among them Admiral Stringham, are desirous to see it at once applied."

This invention was patented Oct. 14th, 1863, by John Bowdlear, of Roxbury, Mass. For further information address him at that place, Box No. 419.

Butter at Sixteen Cents.

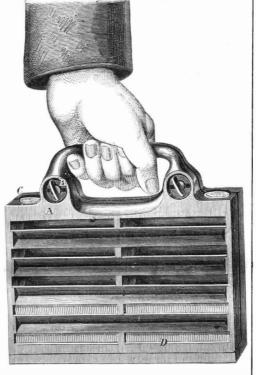
Canada must be a very desirable place to live in at the present time. The prices of provisions in the London (C. W.) markets make us long for a corresponding reduction in the enormous prices for food which are obtained here. We quote from the Canada

"Meat, from farmers' wagons, in large supply, and by the quarter very cheap. Beef \$2 to \$3 50 per 100 lbs. Mutton and lamb, 2c. to 4c. per lb. Poultrydressed turkeys, 50c. to 75c.; geese, 25c. to $37\frac{1}{2}$ c. each; fowls, $37\frac{1}{2}$ c. to 50c.; ducks, 32c. to 40c. per pair. Butter, fresh in rolls, 16c. to 18c. Eggs, 10c. to 12½c. per dozen. Fruit—apples plentiful, at 25c. to $62\frac{1}{2}$ c. per bushel. Vegetables abundant; potatoes, 40c. to 50c. per bushel; turnips, 372c.; onions, \$1 to \$1 25."

Beef here costs ten times as much. Butter three times and poultry six times as much. Potatoes nine times as much.

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screws, B, which keep the case together when set as shown, but there are two slots in the handle which allow the case to be opened when the screws are turned horizontally. In the upper side of the case there are circular depressions, C, which receive the wax on which the seal of the owner or express company is placed. The gold sets in a series of racks inside, and each rack is proportioned to suit a certain denomination; or they may be made all of one



size as desired. The gold packed is shown at $\mathbf D$ and in this condition is wholly protected from loss by the causes mentioned previously. Money cannot be lost out of this safe as it is from bags, which are often cut or ripped, and it need not be counted, as the contents are known, when the racks are full, by a glance. It is more durable than a bag, for it will last for years, whereas bags are costly and soon wear out. The inventor cites one instance where this safe would have been useful; there are, doubt