

Improved Thrasher and Separator.

Machines for thrashing, separating, and cleaning grain at one operation, have long been in use, and the many improvements on them have, in most cases, been on the working parts or internal arrangements.

The thrasher here illustrated, so far as relates to its working parts, is similar to those now in use; the change being in the construction of the frame of the machine, whereby it is greatly simplified and rendered capable of being constructed at a much less cost than heretofore; besides, the machine is so nearly balanced on its wheels as to greatly facilitate its operation and transportation. The following description will render the principal improvements familiar to the reader:—

The frame of the machine is constructed of wood, and is almost complete in two wide boards or timbers, A, which run parallel to each other the entire length of the machine; they are of sufficient strength to support all the working parts of the separator. Near the center is an axle, B, on which the machine is nearly balanced, and may be readily moved from place to place, and also adjusted for operation. This is a very important feature as it admits of its being adjusted for use where the ordinary machines cannot be conveniently placed. It is supported while in operation by two wheels. The front or cylinder end is lowered to the ground, which is but the work of one man, and the machine is then in a most convenient position. Every man is on the ground to work, and the thrashing cylinder, being low, is convenient to supply with grain. The machine will set much more steady and run lighter than the ordinary machines. The accompanying engraving represents the separator ready for operation, and all that is required to prepare it for transportation is simply to raise the front—done by one man—and place it upon the trucks. This brings the machine level and renders it capable of being transported over rough or sideling roads, without danger of upsetting.

This thrasher was patented through the Scientific American Patent Agency by C. B. and W. T. Brown, on June 6, 1865, and it will be known by the name of the "Star of the West." For information in relation to buying or leasing rights address the patentees at Box 345, Alton, Ill.

PLIMPTON'S PARLOR AND ICE SKATES.

A few weeks ago we alluded to the private skating rooms of Mr. Plimpton, on the corner of Tenth street and Fourth avenue, in this city. Many inquiries having been made in regard to the kind of skate made and used by Mr. Plimpton, we have had engraved and present therewith illustrations of both the parlor and ice skate; or, strictly speaking, the patent skate, with the roller and "runner" attachment—the same frame answering the purpose for both in-door and out-door sport.

In the accompanying illustration, Fig. 1 represents a roller skate with a pair of wheels at the toe and heel. These rollers are turned or guided so as to make any desired curve by the rocking of the sole plate, or the proper inclination of the foot of the skater. The rollers set squarely upon the floor, whether the foot be inclined or upright; in this manner sufficient adhesion is obtained to prevent the skate from slipping sideways while turning short curves, etc. By thus dispensing with all rough, soft, or elastic substances, as formerly used upon the rollers, a very easy running skate is obtained. The point upon which the skater rocks, or changes from the inside and outside edge balances, is quite near the foot; and the screw with elastic washer that holds the wheel, hangs in place, can be adjusted so as to afford more or less support for the ankle, while the foot is prevented from turning sideways beyond a

given point, thus obviating one of the first and greatest annoyances in the art of skating. These skates do not require tight strapping that interferes with the free play of the muscles or circulation of blood in the foot, hence it may be readily attached to any ordinary boot or shoe by the perfectly adjusted fastening of the inventor, as shown in Fig. 1. But if the

with the movement of the skate. Therefore an ice skate, working upon the same principle as the roller, is desirable, as then, whatever is learned upon the ice is attainable upon the floor; and this new system of roller skating can be practiced at all seasons as a popular entertainment and beneficial exercise for old or young of either sex.

The convertibility of the roller to a skate for the ice, as shown in Fig. 2, is of no little importance. This change is quickly made by removing the roller portion of the skate and substituting the ice runners, which are arranged to rock freely, so that either pair of runners may be raised from the ice without disturbing the bearing of the other, and also to accommodate the runners to inequalities, etc. The steel bar beneath the center of the skate comes quite near the ice and prevents the runners catching in cracks and other imperfections in the ice, thus greatly lessening the liability of accidents from

falling, etc.

Each skate has four steel runners, the edges of which are ground straight across and slightly curved lengthwise. These runners are set so as to present an edge to hold upon the ice. When the skate becomes dull from use, the screw that secures the runners is loosened and the runners turned half round, thus presenting smooth sharp corners, and by taking out the screws and turning the runners over, the two remaining edges can be used; and thus the skate is made sharp from time to time without the trouble and expense of grinding.

For the ice alone the expensive construction of these skates would seem to prevent their general use, but when we consider that the two skates combined form the ready means of skating at all seasons and in the most agreeable manner, the expense necessary to their proper construction will not be considered by those who require the exercise or consult their own comfort and enjoyment.

On the Fifth Avenue pond, and at private in-door skating parties, we have seen some of the most dexterous movements performed upon these skates that we have ever witnessed, a simple enumeration of which would encroach upon our limited space, therefore we refer our readers to the inventor, J. L. Plimpton, No. 145 Tenth street, this city, an enthusiast on the subject, who, after devoting many years and a vast expenditure, takes much pleasure in illustrating to those interested, that skating is a science as well as an art, and that the highest perfection in the art is by no means confined to the ice.

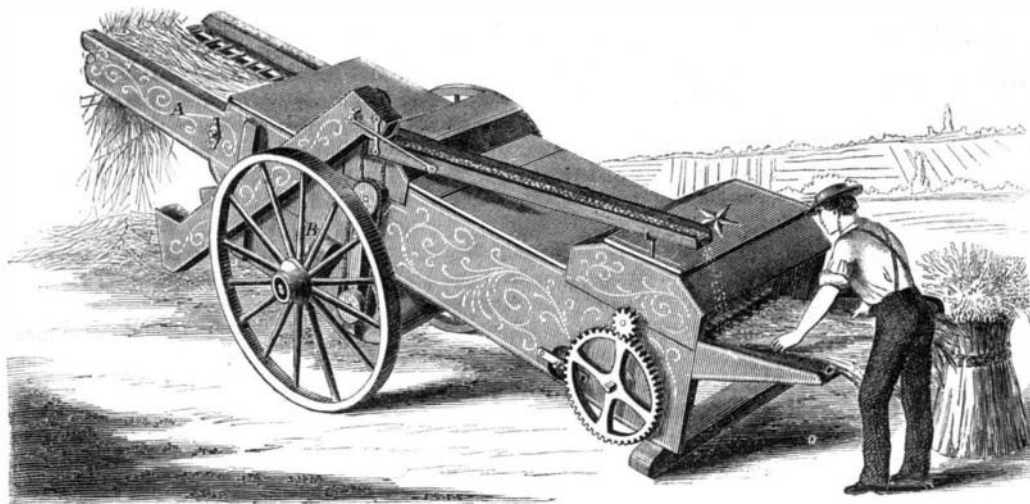
Work at the Patent Office.

We are happy to observe that the work of the Patent Office is being rapidly brought up. For six months past the number of applicants for patents has been so great that it has been impossible for the Examiners in some of the classes to keep their work up, but we are happy to learn that the delay experienced by inventors along back is not likely to exist much longer.

"The Summit Radiating Paddle Wheel."

The inventor of the paddle wheel illustrated on page 134 of the current volume states that the title was incorrectly given by us, and that it is known as the "Summit Radiating Paddle Wheel" in distinction to other feathering wheels, the buckets of which radiate from the center. A model of this wheel can be seen at our office.

HEAVY WEEK'S WORK.—For the week ending March 2, EIGHTY FOUR patents were ordered to issue at the United States Patent Office in cases prepared at the Scientific American Patent Agency.

**BROWN'S THRASHER AND SEPARATOR.**

boot or shoe is unnecessarily loose, straps can be readily applied to the same fastenings, as shown in Fig. 2.

Fig. 1.



As these skates are guided through all the evolutions of skating wholly by a proper and educated adjustment of the foot, persons learning upon the

Fig. 2.



ordinary ice skate, which can be readily forced to accommodate balance, are unable to use the new skate until they acquire, by much practice, this careful adjustment to the foot, and conform their balance strictly