

time. The coffee is subjected to a pressure of from 40 to 70 atmospheres in suitable cast iron moulds. The coffee is thus made to assume a tabular shape, and comes into the market in a form resembling chocolate, divided as the latter is by ribs to facilitate breaking into pieces of suitable size for use. The interior surface of the moulds is highly polished, by which artifice the outer crust of the compressed coffee is made sufficiently smooth and hard to prevent the tendency of the ethereal oil of the coffee to escape from the interior of the cakes. The volume of the coffee thus prepared is reduced to less than one third of that of the original. Tea and coffee thus compressed can be packed and transported in tin foil or other packages, preserving their aroma indefinitely.

THE ALHAMBRA.

When a thing of special excellence appears on the market there are many who stand ready to assert that the climax has been reached and that it is useless for inventors to look further in that direction; but the folly of such conclusions is everyday proved, and we are forced to believe that no human production is so perfect that it may not, in one way or another, be improved.

In the manufacture of stoves one would have thought it difficult to improve the already existing forms either in design or manner of operation; but in our engraving is represented a fireplace stove, called the "Alhambra," which possesses several novel and valuable points. It not only is an economical and effective heater, but it also is an admirable ventilator. The impure air is drawn into the stove and consumed or escapes through the chimney. The cold air enters the lower part of the stove and passes upward between double walls and escapes, warmed, into the room. An upper room may be warmed by removing the top urn and replacing it with a hot air pipe, which may extend to a register in the floor above.

Owing to its peculiar construction the Alhambra is a successful soft coal burner. It has a combustion chamber back of the fire grate, in which the carbon and gases emitted from the burning coal are consumed, thus avoiding condensation and preventing the formation of the heavy black smoke and fine particles of soot, the usual accompaniments of the combustion of soft coal.

The inventor says that the combustion is so complete that no matter what the length of the pipe or chimney may be, there is neither condensation nor accumulation of soot.

It is stated that a ton of soft coal burned in this stove develops as much heat and lasts as long as a ton of hard or anthracite coal consumed in stoves of other forms, and is capable of burning hard coal with the same facility as the soft.

Open fireplace heaters are made on the same principle and are designated by the same name. These heaters are made to set under the mantel, and are provided with an air chamber behind and above. It combines the principle of air warming of the ordinary fireplace heater with the heating and ventilating principles of the common grate. It has a summer front and blower, which slides back from the center of the front into air-tight iron pockets.

Both forms of this heater have direct and reversible smoke flues, also a double swing hearth and side niches for the poker, shovel and tongs.

The Alhambra was recently patented by Mr. A. T. Bennett, of 101 Lake street, Chicago. Further information may be obtained from the patentee or from Mr. A. P. White, P. O. Box 20, Chicago, Ill., and the stove may be seen at the American Institute Fair.

New Inventions.

Mr. Aaron J. Mershon, of Warsaw, Ind., has patented an improved Rock Drilling Machine. This invention relates to certain improvements on the rock drilling machine for which letters patent No. 190,232 were granted to the same inventor May 1, 1877; and it consists in combining with the drill shaft, its lifting arm and the slotted disk wheel, an arm and springs, whereby greater force is applied to the drill on its descending stroke.

Mr. Willis D. Riddick, of Belvidere, N. C., has patented an improved Baling Press, which is particularly intended for pressing cotton, but it may be employed for baling hay and other substances. It consists in an arrangement of a plurality of windlasses, which are so contrived that great pressure is obtained with a small outlay of power.

Mr. James K. Johnston, of St. Louis, Mo., has patented an improved Burglar Alarm. This invention is an improvement upon the device for which letters patent No. 192,698, dated July 3, 1877, have been issued to the same inventor. The object is to provide a stronger, more compact, and also more efficient device.

Mr. Joseph Forman, of Helena, Ky., has patented an improved Car Coupling, which consists of a lever arrangement for raising and dropping the coupling pin from the side or top of the car; and in a swinging and guided frame for lifting the coupling link from the top or side of the car, so that it properly enters the mouth of the connecting draw head.

An improved Razor Strop has been patented by Mr. George W. Brown, of Cumberland Mills (Westbrook), Me. This invention relates to that class of razor strops that are coiled within a case by the action of a spring, and it consists in arranging a spring roll and friction roll with respect to each other, and to an opening in the case, so that the working face of the strop cannot come in contact with the surface of either roll.

Mr. Perry Dickson, of Spearfish City, Dakota Territory, has patented an improved Irrigating Apparatus, by which the water may be distributed at any degree of temperature over the ground, either for the purpose of melting the snow

Mr. Richard Pattin, of Marietta, Ohio, has patented an improved Breast Collar, which is so constructed as to work easier upon the horse than breast collars constructed in the usual way, and which may be placed higher up, so as to be in the most favorable position for the horse to apply his strength to the draught.

Mr. S. Hinckson Bradford, of New York City, has patented an improved Tin Can for condensed milk, paints, and other articles. It has the advantage of being provided with a hinged lid, so that the lid may be raised or lowered with great facility and the contents of the can protected effectively against dust and flies.

Mr. Miles Puckett, of Walesca, Ga., has patented an improved Washing Machine, which is simple in construction, convenient, and effective. It will wash the clothes without injuring them, and with a comparatively small amount of labor.

Mr. Benjamin F. Buxton, of Brookfield, Vt., has patented an improved apparatus by which moist rubber and other boots, shoes, mittens, and similar articles may be dried perfectly, without any objectionable odor in the room. It consists of a box having a draught tube connected to the chimney and bottom tubes with lower perforated elbows, adjustable end pieces, and suspension devices for the boots or shoes, so that the draught established at the interior draws off the moisture and odor.

Mr. Joseph W. Blosser, of Sarcoxie, Mo., has patented an effective Catarrh Remedy, to be utilized either in the form of small cakes by chewing, or in the form of medicated fumes by smoking it like tobacco in a pipe or cigarette, and inhaling, swallowing, or blowing out the smoke through the nostrils, or as the state and location of the disease may require.

An improved Horse Collar has been patented by Mr. Andrew D. Martin, of Abbeville, La. This collar is made by winding moss, hemp, flax, or cotton twine or cord around a flexible base, such as rope, until it is of the proper shape and proportions for a horse collar, when the rope is bent around to the required oval shape and the ends secured. The shoulder for the hames is formed by winding twine evenly upon a base similar to the collar, but smaller, and attaching the rope thus wound to the inner edge of the main collar.

Messrs. Loren M. Webb and Edwin Tinker, of Tuscarora, N. Y., have patented an improved Car Coupling, in which the coupling pin is guided in a cylindrical pin guide or barrel at the top of the draw head, and supported by an extension of the sliding front plate until the same is pushed back by the link. Transverse ribs at the face of the front slide plate serve to hold the link in position for coupling, while a hand lever that engages one of the side plates sets the ribbed front plate forward or backward on the center guide block.

Mr. Thomas C. Veale, of New York City, has patented an improved Combination Barrel. The foundation of the barrel is made of a single thickness of veneer, and in one or more pieces, the edges of which are jointed to each other, and the joints or seams are covered upon the outside with strips of muslin cemented to the veneer. The barrel is covered with a coating of cement, glue, or other suitable adhesive, and is then wrapped with paper, which has been coated or saturated with cement long enough to have swelled. The cover or head is formed of two thicknesses of wood, of unequal diameter, and is applied in a novel manner.

An improved Spring Seat for Wagons has been patented by Mr. John B. Gorrell, of La Otto, Ind. The object of this invention is to

improve the construction of that class of wagon seats which are supported upon spiral springs, so that they shall not be dependent upon the springs to steady the seat, but the latter may be firmly supported and yet suspended so as to allow of its free oscillation laterally to counteract the effect of the jolting movements of the wagon.

Mr. Montgomery R. Davis, of Jackson, Mich., has patented an improved Spring Bed Bottom, which is simple and easily adjusted, so as to make it wider or narrower.

Mr. Joseph Adams, of Washington, D. C., has patented an improvement in Gas Regulators designed to increase, diminish, or entirely cut off the supply of gas in an automatic regulator from any portion of the building, and without descending to the meter or place where the regulator is, and designed also to obviate leakage of gas in the regulator.

THE village of Kollmar, near Gluckstadt, in Holstein, which is situated in a district reputed for its healthiness, has just witnessed the diamond wedding, or the 75th marriage anniversary, of two of its 1,400 parishioners. Two more diamond weddings are impending, and the last fourteen years have seen ten such celebrations there.



THE FIREPLACE STOVE ALHAMBRA.

and taking the frost out of the ground, or for scalding the seeds of weeds and killing worms, grasshopper eggs, and other insects, or for accelerating the growth of the plants, when the ground is prepared, by distributing water in a warm state during the cold nights, so as to supply a sufficient degree of heat to the ground, whereby the growing of the vegetables and other plants is accelerated in a high degree.

An improved Scarf has been patented by Mr. Morris Henschel, of New York City. The object of this invention is to furnish for scarfs of all kinds an adjustable center piece, which may be readily adjusted whenever its edge is worn out or soiled, so as to expose a new and unsoiled edge and impart to the scarf a neat and clean appearance until it is entirely worn out.

An improved Brake for Railway Cars has been patented by Mr. Willard R. Green, of Muscatine, Iowa. This invention consists in a novel arrangement of coupling mechanism, connecting rods, and various other devices, in connection with the brake mechanism, whereby provision is made for operating the brakes of all the cars in a train by power applied from the engine.