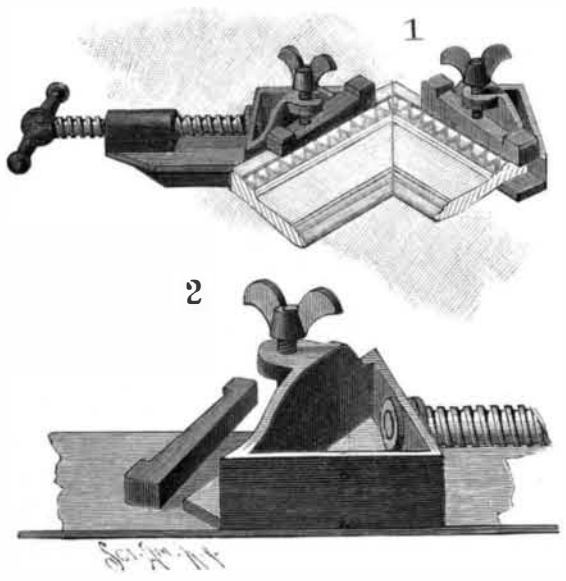
A NOVEL MITER CLAMP.

To hold the ends of mitered moulding or similar stock while being glued or otherwise secured together, the clamp shown in the illustration has been invented and patented by Alois Kohler, of No. 448 East 149th Street, New York City, Fig. 1 representing the device in use and Fig. 2 being an enlarged view of one of the clamping blocks. At one end of a suitable base bar a triangular clamping block is secured by a threaded

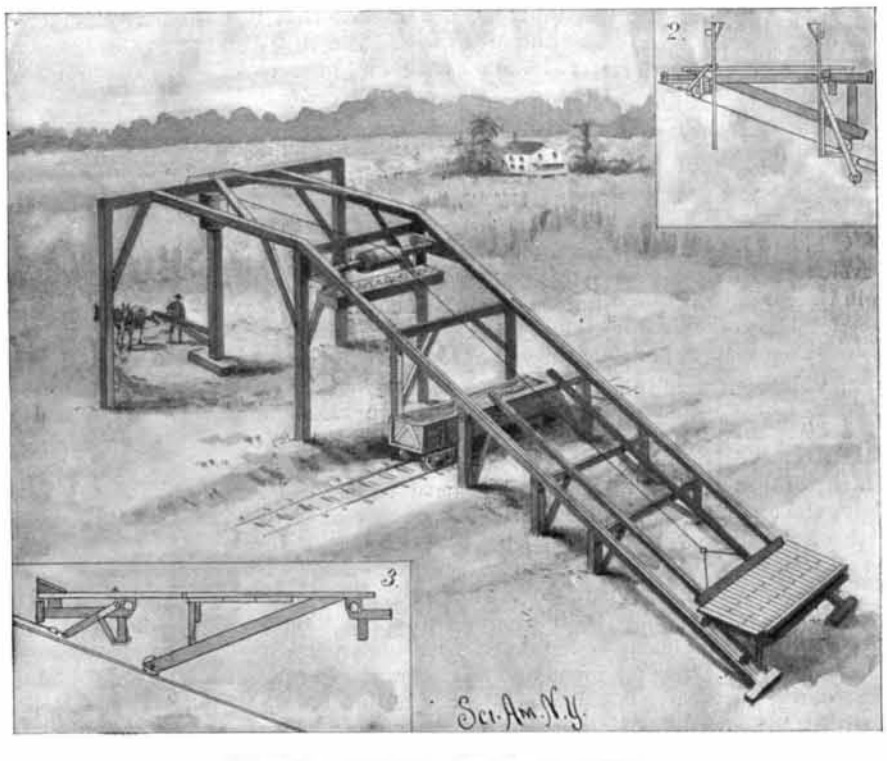


KOHLER'S MITER CLAMP.

bolt passing up through the base, whereby the angle of the face of the block may be changed if desired, and on the upper face of the block is a projection through which passes a set screw, by which the clamp may be set to hold mouldings of different thicknesses, a wedge being interposed between the lower end of the screw and the moulding. By slightly driving the wedge, the moulding may be clamped without turning the screw, or the latter method may be employed where the sliding of the wedge might mar the moulding. An opposite similar but sliding clamping block, shown in Fig. 2, has at one side a socket receiving one end of a threaded bar passing through a threaded lug on the base, whereby, on turning the handle of the bar, the second clamping block may be moved forward to clamp the moulding, as shown in Fig. 1. A wedge may be used with this block as with the other one, the use of the set screw giving a wide range of adjustment, while the wedge gives quicker action in securing or releasing the moulding.

AN APPARATUS FOR LOADING CANE, ETC.

The means shown in the accompanying illustration, for facilitating the transfer of cane and similar products from wagons and carts to cars, carriers or platforms, form the subject of an invention for which a patent has been recently issued to E. W. Wiley, Jr., of Le Compte, La. The larger figure represents the apparatus in use, Figs. 2 and 3 being sectional views indicating the manner of opening and closing of the carriage floor, Fig. 2 showing the floor open, as in delivering the load. The carriage at the foot of the inclined way is large enough to hold a wagon or cart load of cane, which is dumped on it, the carriage being drawn up the incline by a rope passed around a hoisting drum, and from this drum a rope connects with a counterbalance drum so arranged that the weight suspended from the latter drum will balance the weight of the carriage and one-half of the load. The carriage floor is composed of two interlapping trap doors, provided with an automatic trip and automatic shutting mechanism, the trip wheels running on a terminal intermediate track which is of such length as to allow the doors to open when the carriage has reached the proper position on the incline over the car to be loaded. After the load has been discharged, and as the carriage commences its descent, the trap doors are gradually closed, one of the trip wheels engaging with the intermediate track. The whole operation is automatic, it being impossible for the load to be prematurely discharged, and the construction being such that there is no danger to teams, there being no necessity for carrying ropes or slings on the wagon, as is necessary in so many forms of hoists. Four of these machines were in successful operation last season.



WILEY'S CANE-LOADING APPARATUS.

Pets in the Sea.

During a visit to one of the islands off the coast of southern California I found that the fishermen were in the habit of feeding certain wild animals, which in time became so tame that strangers might almost think they were domesticated. The fishermen fed the gulls every morning when cleaning their fish, some of the birds becoming so friendly that they allowed the men to touch them, while others followed them out to sea, alighting on their boats, and exhibiting remarkable confidence.

Among the animals which frequently came into the little bay to feed was a large seal. It sometimes followed fishing boats in, and once, when rows of fish were hung up to be photographed by their fortunate captors, it raised its head high out of the water, apparently eying the fish so eagerly that the boatman gave it a share.

The fishermen usually went gill fishing late in the afternoon, and the seal, perhaps conceiving that the whole operation was for its benefit, began to accompany them; and as soon as a fish became entangled it would dive down and take it out of the net, returning to the surface to toss it in the air in high glee before the eyes of the fishermen. In this way the seal robbed the nets, growing bolder and bolder. At last, one day when one of the fishermen had returned from the banks and was washing his catch from a boat not far from the spot where the writer stood, splashing the big red fish to and fro, suddenly a large black form darted up from below, two black eyes looked at the amazed fisherman for a moment, and then the seal snatched the fish from his hands, and swam away amid the shouts of laughter from the lookers-on.

A few days later, presumably the same seal appeared off the wharf where several anglers were fishing, and deftly carried off their bait without being hooked. In the latter sport the seal was joined by a black diver—a bird with a long, snakelike neck and pointed bill—which was as much at home beneath the water as above, and which watched the fishermen with eager glance. The moment the bait struck the water, the bird plunged beneath the surface and seized it. Finally it was hooked and hauled ashore—an operation that did not prevent it, on being released, from renewing the pilfering on the following day.

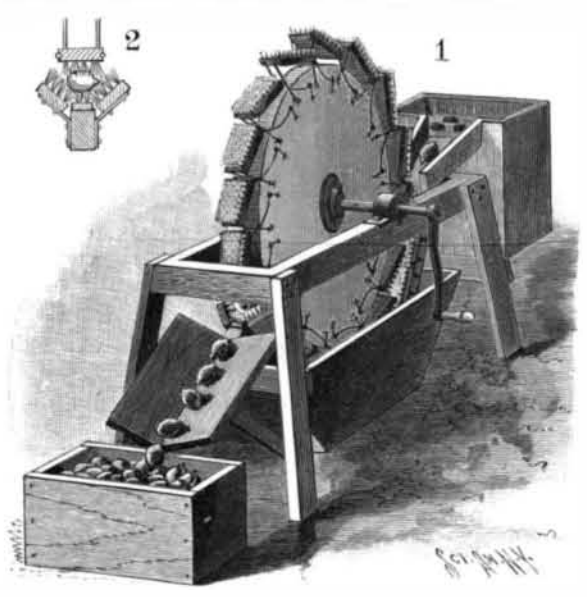
A fisherman on the Maine coast once claimed to own a remarkable pet, though it must be confessed that the question of proprietorship was open to doubt. The man was in the habit of fishing about ten miles offshore on what was known as the cod banks, and often took fish of little use, which he tossed over. One day he noticed a tunny playing about the boat, and tossing a dogfish at it, he was surprised to see the big fish turn and seize it. Wishing to see how near the fish would approach, he threw another, bringing the tunny within a few feet of him. On another day he saw what he assumed was the same fish in the same locality, and fed it again, repeating the act until the fish displayed no fear, and finally approached to the very side of the boat. The writer once had a number of singular pets in the guise of loggerhead turtles. He had led an expedition to capture them on Loggerhead Key, about seventy miles from Cuba—a locality somewhat remarkable for the animals—and gradually they had accumulated until nearly a dozen were living in an inclosure about sixty feet wide and an eighth of a mile long, into which the sea water flowed freely.

It was desirable to learn whether the turtles were susceptible to the taming process; so a system of education was begun that was fruitful of some exciting episodes. The turtles, when not feeding, lay at the bottom in water eight or ten feet deep, their huge bodies plainly outlined against the sand. Here they undoubtedly slept or dozed, and it was comparatively an easy matter to swim down and grasp them from behind by the back of the shell just over the head. The moment the turtle felt the grasp it bounded to the surface and took a long breath, then dived again, dragging the rider along at a rapid pace, now under water, again at the surface, endeavoring in vain to shake off by desperate plunges the enemy, who, like the old man of the sea, clung closely to its back. If the turtle had been left to its own devices, it would soon have escaped; but, by placing the knees upon its back, enough resistance was brought into play to force it to the surface, and after a number of rushes up and down the inclosure it was reduced to submission. This experiment was tried many times with a view to domesticating the huge loggerheads, who finally apparently submitted with some degree of grace to the daily exercise, and would gather at one end of the inclosure to be fed.

The strength of these reptiles was marvelous. Not only could one of the largest size tow a man through the water and beneath it, but when two were fastened in a rude canvas harness and attached to a flat boat they towed it around for an indefinite period; and when the first fright was overcome, they swam along nonchalantly, as though they rather enjoyed it.—By C. F. Holder in The Outlook.

A MACHINE FOR WASHING ORANGES, LEMONS, ETC.

A machine especially adapted to thoroughly clean the rinds of oranges, lemons, etc., without, in the slightest degree, injuring such fruit, is represented in the illustration, the fruit being fed into the machine at one end and delivered at the opposite end in a thoroughly cleansed condition. The improvement has been



WRIGHTS' FRUIT-CLEANING MACHINE.

patented by Benjamin B. and James H. Wright, of Riverside, Cal. The fruit is first placed in a water trough at one end of the machine, to loosen any foreign adhering matter, and is then passed down the feed trough beneath the brushes of a wheel revolved by a crank handle, the lower portion of the wheel passing through a rinsing tank. In this tank is a series of segmentally arranged brushes, between which and the brushes on the periphery of the wheel the fruit is passed, as indicated in the sectional view, Fig. 2. The brushes on the periphery of the wheel are supported by spring rods, whereby their pressure upon the fruit may be a yielding and flexible one, not liable to injure the rinds, and the fruit is passed out through a delivery spout at the opposite end of the machine.

German Technical Schools.

It is no small wonder that "made in Germany" is already the most familiar trade mark in the world, for the whole German people are being educated scientifically in the arts of industrial production. Nowhere in the world does manufacturing become so nearly a skilled profession as in Saxony, for in this small kingdom there are no less than 111 technical institutes; Prussia has 260 such schools, with over 12,000 pupils; 35 of the schools are for painters and decorators, 16 for tailors, 9 for shoemakers, etc., other trades having at least one school. The government appropriates $600,000 for their support and the various towns and cities give liberal subsidies, Berlin alone giving $70,000 per annum. Baden, with 1,600,000 inhabitants, spends $280,000 a year in technical schools. Hesse, with a population of 1,000,000, has 83 schools of design, 43 of manufacturing industries and many others for artisans of various trades. Bavaria and Würtemberg and other cities have similar systems.