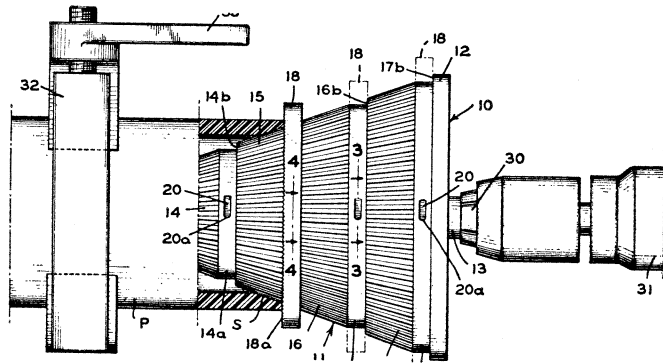


# current patents

## PIPING

### Combined reaming and facing tool

Pipe ends need a flat surface, or face, to attach to other fixtures, and sometimes a tapered inside as well. A combined tool for facing the end of a plastic pipe while reaming its interior surface was patented last week



by Sherman L. Bremer, Champaign, Ill. He assigned the patent to National Distillers and Chemical Corp., New York City.

The reamer cuts a tapered wedge surface so that plastic couplings or fittings can be attached. Reaming surfaces of different sizes to accommodate various plastic pipes or tubes can be attached to the tool.

Patent 3,395,435

## PROSPECTING

### Improved airborne electromagnetic surveys

Airborne geophysical prospecting utilizes equipment that measures the existence of magnetic anomalies in the earth's crust. Accuracy depends upon time variations in the earth's magnetic field, the relative distance between the aircraft and the measuring equipment it is towing, and the angle of the aircraft relative to the equipment. Variations in these factors can at times be indistinguishable from variations caused by the desired deposit in the earth's crust.

Apparatus for eliminating these errors has been patented by Daniel P. Hearn, Tulsa, Okla., and assigned to Sinclair Research, Inc., New York City.

Two magnetometers are brought close together and the difference in the measurements at each instrument is obtained. If the distance between the two magnetometers is kept constant, this difference provides a magnetic gradient which is unaffected by natural time variations in the earth's magnetic field. The apparatus also eliminates errors caused by distance variations between the two magnetometers.

Patent 3,396,334

## IRRADIATION

### Equipment for maximum exposure

Irradiation equipment which conveys goods at a non-uniform speed past a radiation source for maximum ex-

posure has been patented by Alfred Brunner, and assigned to Sulzer Brothers, Ltd., Winterthur, Switzerland.

The packages being irradiated are moved about a pair of parallel tracks so that the packages on the inner track shield the packages on the outer track. The movement of the packages is interrupted so that the outer packages are unshielded for a maximum time, and shielded for the shortest period.

In this way, irradiation not absorbed by the material on the inner track may still treat what is on the tracks farther from the source of irradiation.

Irradiation is looked on as a way of preserving foods without refrigeration, but its value is still under question by the Food and Drug Administration (SN: 8/3, p. 107).

Patent 3,396,273

## CONSTRUCTION

### Mechanical car-parking tower

A circular car-parking installation in which cars are handled automatically on pallets was patented by Stuart Johnson, Staffordshire, England.

A central access elevator raises, rotates and manipulates the vehicles into and out of their parked positions.

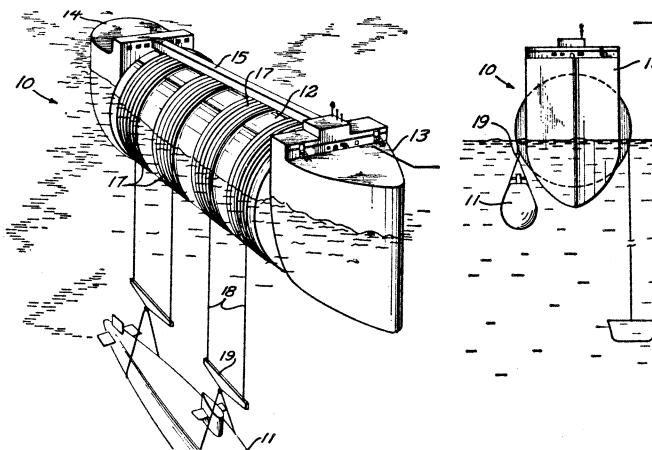
Patent 3,395,815

## MARINE RETRIEVAL

### Sinkable counterweight for hoist

Conventional hoisting systems use a winch to lift a sunken object to the surface. A floatable hoisting apparatus, patented by Edgar N. Rosenberg and Stephen F. Moran of San Diego, Calif., and assigned to the Navy, has a sinkable counterweight to produce the lift.

The counterweight has compartments that can be



flooded; as this happens, the counterweight's torque is applied to the sunken object, lifting it. The maximum lift capacity of the rig is said to be much greater than conventional hoisting gear.

When the sunken object is raised and detached from the hoisting apparatus, the counterweight is raised by pumping out the flooded compartments.

Patent 3,395,665

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