

**Sizes of Books.**

	Page.	Leaves.	Sheet.
Folio books are the largest, of which..	4	or 2	make
Quarto, or 4to.....	8	" 4	" 1
Octavo, or 8vo.....	16	" 8	" 1
Duodecimo, or 12mo.....	24	" 12	" 1
Octodecimo, or 18mo.....	36	" 18	" 1

**Sizes of Drawing Paper.**

	inches	by	27	inches
Wove Antique.....	48	"	26	"
Double Elephant.....	40	"	26	"
Atlas.....	33	"	23	"
Columbia.....	34	"	23	"
Elephant.....	27	"	21	"
Imperial.....	31	"	19	"
Super Royal.....	27	"	17	"
Royal.....	24	"	15	"
Medium.....	22	"	15	"
Deity.....	20	"	15	"

**Petroleum as an Illuminator.**

The following table, prepared by Prof. Weethe, of Mt. Auburn, Ohio, and published in the *American Artizan*, will show the value of petroleum as an illuminator:—

Articles Used.	Quantity of light.	Quan. of light from an equal meas. of oil.	Cost of equal quantity of light.
Coal-oil or Petroleum.....	13.70	2.00	4.00
Campene.....	5.00	1.30	4.95
Whale-oil.....	2.40	.85	12.00
Lard-oil.....	1.50	.70	17.60
Sperm-oil.....	2.00	.95	26.60
Burning-fluid.....	.65	.40	29.34

**Miscellaneous.**

**Misuse of Oils.**

For want of a little knowledge of oils, many persons missapply them. We have seen a clock which would not go because it had been oiled with linseed oil; and we have seen newspapers that blackened the fingers, six months after they were printed, because olive oil was mixed with the ink to thin it. Olive oil never dries, and a little of it will prevent any other oil from drying; hence it will not do for ink or paint; but may do tolerably well for clocks; very well, indeed, if it be purified from acid by treatment with lead. Linseed oil will surely dry; fish oil will become gummy; therefore neither will do for clocks; and it is not convenient to use fish oil for machinery; and of course none but green hands need be told that linseed oil will not do for machinery.

We saw a fellow at the fair of the American Institute who was celebrating cotton-seed oil; it was good for lubrication, good for printing, and, when carefully prepared was the best oil for salads. Such a humbug might easily induce ignorant persons to buy it to oil their clocks with or print with. As we don't happen to remember anything about this oil except what we heard from him, we can't say what it is good for; but we should like to see it tried by others before we would use it for lubrication or printing or salads or medicine.

The best way for one who does not understand oils, and wants oil for painting, is to buy it of a practical painter, who can tell him which kind is best for his special use; not buy it of a dealer in painter's materials, for he may be ignorant of everything but the name and price of it; so with

oil for his clock, sewing machine or other machinery; go to the men who work or run them. As for salads and physic, we must all "go it blind" no one can know what he swallows unless he has seen it made. Olive oil is made from lard, more or less; and few are so expert as to tell the difference between the imitation and the genuine oil. The only advice we can offer about it is, first, to smell of it; if it smells agreeably, then taste it; if it tastes well, then eat it; but don't use it because it is in fashion. Your natural taste, if unbiassed by your judgment, or by your ideas of gentility, will be a tolerably good index of what is good for your stomach; and it matters little whether it is lard, olive oil or butter. But we seriously advise certain printers not to put any kind of oil into their ink, unless they have learned from certain experts *what* oil is proper for it. A lady in a white dress who sits on a newspaper, and gets the news transferred to her dress, is apt to scold about it; and of course gallantry should look to avoid such a case.—*American Artizan*.

**Value of Forests.**

The *Scientific American* says:—"While the attention of our people is drawn to the necessity of introducing a cheaper material than coal, as a fuel, our forests are rapidly wasting away. In localities not possessing good facilities for transportation, the trees in the forests are ruthlessly sacrificed, and, if the waste continues in the same ratio for the next half century as it has for fifty years past, there must be portions of our country which will be changed from fertile farms to barren wastes. This is no fancy or sensational statement. The grand reservoirs of our springs, brooks, and rivers are our forests, except on the slopes of mountain ranges. They conserve the moisture deposited by rain and dew, by frost and snow, and deal it out through the arid and thirsty months, giving fertility and verdure to land that otherwise would not feed a goat. Forests serve a grand object in the economy of nature. They should be valued and protected. For this utilitarian reason, as well as for others of a more æsthetic character, we desire to see our forests preserved."

**Revolution in Steam Navigation.**

The *Liverpool Post* in describing the launch of a vessel at Birkenhead says:—"The *Sleigh of the Wave* is a splendid steel yacht, of first rate model, finish, and workmanship; and, what is more to the purpose, the machinery constructed for her is of an entirely novel character, the motive power being water under pressure, which, it is expected will entirely supersede steam. The invention of steam sinks into insignificance beside this new discovery. The hydrostatic engine is now about being erected in the *Sleigh of the Wave*, and doubtless in a few weeks' progress will be reported.

**Scientific Experiments.**

[1.] An agreeable experiment in electro-magnetism may be made by placing a magnet in the circuit of a galvanic pile; then break the circuit at any point, and place the two ends in a box containing iron-filings; then very carefully and gently raise one wire and draw it from the box, and it will