

of the diglycol ester. Weakening of the fiber, off odors and imperfect dyeing are also avoided. In the washing-out process, the addition of a small amount of alkali completely removes all oil and grease when the oiling emulsion contains the diglycol ester. In the preliminary washing of raw wool, the process is simplified to a great extent by treatment of the wool with a solution of diglycol ester plus 1 per cent of alkali in warm water, this treatment being helpful in loosening the natural wool grease present.

In the weaving of rayon, weighted silk and other fibers, thread breakage is almost entirely eliminated by treatment with diglycol oleate to which some potash soap has been added. The tensile strength and flexibility of the fiber is said to be increased and weighted silk made more resistant to temperature and humidity

changes. Raw silk treated with these esters is free of spots when finished.

In the manufacture of paints and inks consisting of pigments suspended in oil, the addition of about 2 per cent of diglycol stearate to the mixture tends to improve the life of the suspension and prevent settling of the pigment. Coatings of greater flexibility and strength are produced from solutions of shellac, resins and varnish gums by the addition of varying amounts of diglycol oleate.

Lustrous white ointments, which spread evenly and are readily absorbed by the skin (because of their low surface tension), may be prepared by melting lanolin with diglycol stearate, forming thereby a base which will absorb large amounts of water.

## Smoke, Flash and Fire Points For Commercial Oils

**E**MPLYING the Cleveland "Open Cup" method, W. H. Dickhart, consulting chemist, located at 189 Franklin street, New York, recently tabulated the figures set below on the smoke-flash-fire points of various vegetable oils. Little data has been available, and while these

tests were made at different times, not averaged on the same oils, and represent approximate values, they will furnish data in a field heretofore containing little printed information. Temperatures, in Fahrenheit, were determined by Mr. Dickhart as follows:

Oils	Smoked F°	Flashed F°	Fired F°
Olive (edible) .....	350	554	690
Olive (commercial) .....	290	538	682
Olive (bleached, refined foots containing CS <sub>2</sub> ).....	348	570	670
Rapeseed .....	256	680	692
Rapeseed .....	412	600	692
Rapeseed .....	332	594	692
Rapeseed (English) .....	390	614	692
Sesame .....	500	632	684
Palm (Refined) .....	446	620	692
Cottonseed (P. S. Y.).....	493	616	680
Cottonseed (Deodorized) .....	508	650	680
Peanut .....	464	632	692
Hydrogenated Cottonseed .....	380	590	660
Soya Bean .....	280	580	...
Lard Oil .....	288	492	610
Tallow (Acid less).....	...	605	695
Tallow (2 per cent F. F. A.).....	350	545	675
Red Oil .....	260	368	414
Sperm .....	130	510	672
Pine .....	...	153	184
Turpentine .....	...	84	98