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to communicate. Heroin addicts become wrecks and write-offs. Although cannabis is said to harm the brain, it can be argued that this is also true of drink. Tobacco is probably more harmful than moderate joints of cannabis and is socially acceptable.

The objections usually raised by the opponents of any loosening-up of drug laws are that people attracted to soft drugs will eventually want more and succumb to the hard and lethal "white powder". This sound argument is made true by the presence of narcotics rings, drug peddlars and the very predicament of those who take to drugs in the first place. Soft drugs might be allowed in a healthy society because they would no longer be used as an expression of revolt, despair and therefore be harmless. The resort to hard drugs is not a result of dissatisfaction with soft drugs, but the consequence of the usually depressed state of the drug taker and his exposure to criminal elements. Thus the root of the troubles go beyond simple repressive measures against soft drugs which (once shorn of persistent taboos) are no more dangerous than barbiturates, Saridon, whisky, a packet of cigarettes a day and other socially accepted "necessities". The emphasis should lie on understanding the reasons why teenagers take drugs and finding what they are actually looking for. The answer to this question and the will to act in consequence with the result seems to be a better alternative than to proclaim new laws and leave the disease untended.

(PMB)

TECHNICAL ITEMS

Spike tyres and dry roads

As everyone knows, the damage caused by spikes to the roads each winter is counted in hundreds of thousands of francs. As a result, the government of the canton of Vaud in Switzerland has decided to introduce a special tax of S.Fr. 100 (US $26.30) per winter for every vehicle fitted with spike tyres. A Swiss inventor in Geneva has invented a new type of spike tyre with all the advantages of conventional spike tyres but without their drawbacks. The tyre has two rows of spikes, on either side of the tread and slightly back from it. On dry road, at normal tyre pressure, the vehicle runs only on the central tread and the spikes do not come into contact with the road. Whenever the road conditions require, it is sufficient to release a little air from the tyre (300 to 500 gr.) for the central tread to flatten and the spikes to come into contact with the road surface. The inventor has also devised a system of "Mini-Maxi" valves making it possible merely by pressing on a valve to obtain the desired pressure.

Pneumatic-hydraulic vices

A Swiss engineering works at Lenzburg (Aargau) recently produced two new models of interchangeable hydraulic clamping vices, one operated by hand, the other by compressed air. They are rapidly interchanged by removing a single fixing screw, without having to take the vice off its stand. The special system for the rapid opening and closing of these vices is designed so as to save as much time as possible when changing work parts. When open, the clamping device releases the operating jaw, held by an anchoring rack; it is moved by hand in order to adjust the width of the jaws. The clamping run, of about 14 mm, comprises two stages, in order to save compressed air and speed up operation. The first is a low-power approach run (max. 12 mm) followed by a high power clamping run of about 2 mm, as soon as the part to be clamped has been contacted. This process is commanded by a special valve incorporated in the cylinder unit. Several model of these vices are available, with a full range of cylinder unit. Several models of these clamping forces of up to 17,000 kg. at 6 atm.

Puncture warning appliance

A Swiss firm in Zurich has produced a safety device for vehicles, which won a silver medal at the last Brussels Salon of inventions. It is a puncture warning device designed to warn the driver of a heavy truck when a tyre on his vehicle or the trailer is losing air. This warning system is particularly useful for transport on motorways, where heavy trucks drive increasingly fast. One has only to think of the many accidents caused by abnormal heating of one of the twin wheels, as a result of a puncture or a difference in pressure between the two tyres. The instrument comprises three main parts: a transmitter, a receiving aerial with a receiver, and an optical and acoustic warning signal. Very small and very sturdily built, the transmitter is mounted on the wheel hub. It is screwed onto the end of a pressure gauge tube set to the tyre pressure; the pressure gauge is connected to the tyre valve—or to the two valves in the case of twin wheels—by a flexible tube. In the case of twin wheels, the pressure gauge is designed so that it acts as a pressure equilibrator for the two wheels when the pressure drops suddenly in one, the system isolates the other so that the pressure does not drop there too. A drop in pressure of about 0.7 bar is sufficient to lock the appliance and to set off the signal. As soon as the pressure drops, a light flashes inside the transmitter; once the driver is warned by the signals in his cabin, all he has to do is glance at the instruments to see which tyre is damaged. The receiving aerial consists of a galvanised and insulated cable fixed on the edge of the mudguard or the body. It is connected to the receiver fixed to the rear of the body of the truck and powered by the truck's battery. The warning signal comprises a flashing light mounted in the cabin, in a very conspicuous spot, together with a clearly audible acoustic signal. Small in size, easy to mount and perfectly reliable, this device also has the advantage of helping to balance the pressure in the tyres on the twin wheels, thus considerably reducing tyre wear.

Alusuisse in Australia

The Nabalco (Pty) Ltd. aluminium works (aluminium oxide), built at Gove with the participation of Aluminium Suisse C . Ltd. (Zurich, Switzerland), was inaugurated at the beginning of July, 1972. Production started with an annual capacity of 500,000 tons, corresponding to the first stage of construction; a second stage also involving 500,000 tons will be reached in 1973. The figure of S.Fr. 1.8 billion (US $473.8 million) is quoted for this scheme, of which 70%, i.e. S.Fr. 1.3 billion (US $342.2 million) will be supplied by Alusuisse. The mining of bauxite began in the spring of 1971

after a preparatory period of six years. The annual production of bauxite was in the neighbourhood of one million tons. This bauxite-aluminium project is at present the biggest ever put into operation by the Alusuisse group.

Technical co-operation: Big Swiss project in Java

Switzerland's Ambassador to Indonesia signed an agreement with that country at Djarkarta on 11th October, regarding the construction of a hotel school at Bandung (Island of Java). The Bandung Hotel School, which was built with the help of the Confederation, will form a pilot scheme. It will be housed in the premises of the present National Hotel Academy—built in 1969—which it will replace. Instruction will concentrate on practical training and will offer possibilities of specialisation. The execution of this project is to be entrusted to a specialised Swiss firm: Oper Co. Ltd. The total cost of the first stage will amount to about four million francs (US $1.053 million). For this purpose, the Swiss Federal Council has already released a sum of Fr. 2.5 million (US $658.000), from the Technical Co-operation Fund.

The telephone in Switzerland and the World

At the beginning of 1971, there were 273 million telephones in operation throughout the world, i.e. nearly twice as many as in 1961. With a figure somewhat higher than three million phones, Switzerland has almost as many telephones as Africa (3.2 million), more than Central America (2.8 million) and half as many as the total number installed in the whole of South America (6.1 million). As for the number of telephones per 100 inhabitants, Switzerland, with 48.3, comes third in the world after the United States (58.3) and Sweden (55.7). This figure increased still further in Switzerland in 1971, since at the beginning of 1972 it amounted to 51 per 100 inhabitants. The corresponding figures for neighbouring countries did not amount to half Switzerland's; they were 22.4 for Germany, 19.3 for Austria, 17.4 for Italy and 17.2 for France. The five big European towns where the density of telephones is the highest are Stockholm (91.9 telephones per 100 inhabitants), Zurich (78.6), Geneva (69.9), Göteberg (68.7) and Basle (68.5), i.e. two Swedish towns and three Swiss.

(by courtesy of the Swiss Office for the Development of Trade)